Via Electronic Mail

June 3, 2019

Ms. Andrea Leshak, Esq.
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866

Ms. Zolymar Luna
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency, Region 2
City View Plaza II, Suite 7000
#48 Rd 165, km 1.2
Guaynabo, Puerto Rico 00968-8069

Re: **PROTECO Site in Peñuelas, Puerto Rico**

Dear Ms. Leshak and Ms. Luna:

The following is submitted by Owens-Illinois, Inc. ("Owens"), One O-I Plaza, One Michael Owens Way, Perrysburg, Ohio 43551, in response to the U.S. Environmental Protection Agency's ("USEPA") March 28, 2019 Request for Information pursuant to Section 107(a) and 104(e) of CERCLA, relating to information, if any, in the possession of Respondent with respect to the PROTECO Site ("Site").

Owens has made a good faith effort to respond to the request, and has provided a response to each of the questions. Due to the fact that 12 years have passed since the glass manufacturing facility, located at Road 690 KM 1.1 in Vega Alta, Puerto Rico ("Facility") was closed, a limited amount of records were available.

Exhibits A through T, attached, contain information which may be responsive to the request.

If you have any questions regarding this response, please call me at (567) 336-2070.

Respectfully submitted,

John F. Cayton, Attorney
Owens-Illinois, Inc.
One Michael Owens Way, Plaza One
Perrysburg, OH 43551-2999

Enclosures

565373

GENERAL OBJECTIONS:

1. Owens objects to the Request for Information on the grounds that it is unduly burdensome and overly broad as it seeks information for an unreasonably long period of time and seeks documents and information that is not within the possession, custody or control of Respondent and information and documents that do not directly relate to the PROTECO Site.

2. Owens objects to any request by the U.S. EPA to produce any material which is subject to attorney-client privilege or other privilege, or which constitutes protected attorney-work product.

3. Owens objects to any attempt by U.S. EPA to create a continuing duty for Owens to supplement its responses on the grounds that such instruction exceeds the statutory authority of CERCLA. Without waiving its objection, Respondent will voluntarily supplement its responses in the event it becomes aware of any new information or any information that demonstrates that its response was incorrect when made, though believed to be correct when made, or is no longer true.

REQUESTS FOR INFORMATION:

Without waiving any of the foregoing General Objections, Respondent responds to the specific Requests for Information (Exhibit A) as follows:

Request No. 1:
Answer the following questions regarding the Company:

a. *State the correct legal name and mailing address for the Company;*
b. *State the name(s) and address(es) of the President, Chief Executive Officer, and the Chairman of the Board (or other presiding officer) of the Company;*
c. *Identify the state/commonwealth and date of incorporation of the Company and the name of its agents for service of process in the state/commonwealth of incorporation and in Puerto Rico, if different; and*
d. *Identify any successor corporations, predecessor corporations, or other entities related to the Company. If the Company is or was a subsidiary or affiliate of another corporation or other entity, identify each of those other entities' Chief Executive Officers, Presidents, and Chairpersons of the Board. Identify the state/commonwealth of incorporation and agents for service of process in the state/commonwealth of incorporation and in Puerto Rico, if different, for each entity identified in your response to this question.*

Response No. 1.:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome.

Owens is the largest manufacturer of glass containers in the world with 77 manufacturing facilities in 23 countries throughout the world, and is the leading glass container manufacturer in most of the countries where we have manufacturing facilities.

Owens, through its subsidiaries, is the successor to a business established in 1903. Over the course of its 116-year history, through mergers, acquisitions and divestitures, Owens has operated and been incorporated under many different names. Owens has also had numerous subsidiaries, divisions, operating units, and affiliates over its history. To list all of the above, as well as all registered agents, officers, and operations management personnel throughout the Company's history would be unduly burdensome.

Notwithstanding the foregoing and without waiving any of its objections, Owens is providing in Exhibit B, copies of its Form 10-K for 2014 through 2018, which include information on Owens' recent corporate structure and management.

The agent for process of service on Owens is CT Corporation.

Request No. 2:
Describe the current and past business relationship between the Company and Owens-Illinois de Puerto Rico.

Response No. 2:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Notwithstanding the foregoing and without waiving any of its objections, Owens provides the following information:

Owens-Illinois de Puerto Rico, LLC ("OIPR") operated as a glass manufacturing facility from the mid 1970's until July 2007. Prior to August 2001, OIPR was affiliated with Owens.

On or about August 2001, United Caribbean Container, Ltd, a Cayman Islands corporation, took 100% ownership of OIPR. Although Owens owned an indirect interest in United Caribbean Container, Ltd., it was not a majority nor a controlling interest.

OIPR defaulted on its mortgage, which led to a public auction of the mortgaged real estate and the Facility in December 2008. At public auction, Seagate, Inc., a wholly-owned subsidiary of Owens, acquired full ownership of the real estate, including all of the physical structures and buildings located on the land, but did not take ownership of the business as a going concern. See Deed of Judicial

Sale dated January 20, 2009 (Exhibit C). On April 9, 2009, Seagate, Inc. leased the property to O-I Caribbean Sales & Distribution, Inc. ("OICS&D"), a sales and distribution center; that lease ran through April 9, 2011. See Lease dated April 9, 2009 (Exhibit D). Seagate, Inc. continues to own the property.

Request No. 3:
State the corporate history of the Company, including all name changes and mergers. List all names under which the Company has operated and has been incorporated. For each other name, provide the following information:

a. *Whether that other company or business continues to exist, indicating the date and means by which it ceased operations (e.g., dissolution, bankruptcy, sale) if it is no longer in business;*
b. *Names, addresses, and telephone numbers of all registered agents, officers, and operations management personnel; and*
c. *Names, addresses, and telephone numbers of all subsidiaries, unincorporated divisions or operating units, affiliates, and parent corporations if any, of that other company.*

Response No. 3:
See Responses to Requests Nos. 1 and 2.

Request No. 4:
Identify all changes in ownership relating to the Company from its date of incorporation to the present, including the date of any ownership change. If any owner was/is a corporation, identify if the corporation was a subsidiary or division of another corporation. In your identification of any corporation, it is requested that you provide the full corporate name, the state/commonwealth of incorporation, and all fictitious names used/held by that corporation.

Response No. 4:
See Responses to Requests Nos. 1 and 2.

Request No. 5:
For each owner that is a subsidiary of another corporation identified in your answer to Request #4, above, please provide a chart that details the corporate structure from that other company through all intermediary entities to the ultimate corporate parent. For purposes of this information request, the term "ultimate corporate parent" means the corporate entity that, while owning or controlling the majority of the shares of common stock in a subsidiary corporation, is not primarily owned/controlled by another corporation.

Response No. 5:
See Response to Request No. 1.

Request No. 6:
Provide copies of the Company's authority to do business in Puerto Rico. Include all authorizations, withdrawals, suspensions, and reinstatements.

Response No. 6:
See Responses to Requests Nos. 1 and 2.

Request No. 7:
State the dates during which the Company owned, operated, or leased any portion of the Facility, and provide copies of all documents evidencing or relating to such ownership, operation, or lease, including but not limited to purchase and sale agreements, deeds, leases, etc.

Response No. 7:
See Response to Request No. 2.

Request No. 8:
Indicate whether the Company has ever operated at a location other than the Facility. If yes, provide the correct names and addresses of the Company's other facilities where the Company carried out its operations.

Response No. 8:
See Response to Request No. 1.

Request No. 9:
Describe in detail the nature of the business and the operations conducted at the Facility and at any locations identified in response to Request #8, above, during the period that the Company operated there. Provide a brief description of the Company's operations at each facility, including the following:

a. The date such operations commenced and concluded; and
b. The types of work performed at each facility, including but not limited to the industrial, chemical, or institutional processes and treatments undertaken at each facility.

Response No. 9:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Notwithstanding the foregoing and without waiving any of its objections, Owens provides the following information:

The Company's Vega Alta, Puerto Rico Facility, was a glass container manufacturing facility. Glass container manufacturing facilities melt raw materials such as sand, soda ash, limestone and cullet (crushed, recycled glass) in glass melting furnaces. The molten glass flows from a furnace through forehearths, passing through shears that

cut the molten glass into "gobs" which are distributed to the mold cavities in the forming machines, where the gobs are formed into various shaped bottles. The hot formed glass containers are coated on the surface with a tin solution and then they are re-heated in an annealing lehr and cooled gradually to relieve internal stresses in the formed glass container. The exterior surface of the cooled containers is then sprayed with a coating of polyethylene to reduce abrasion of the container surfaces during handling. After the cold end surface treatment, the containers are inspected and are packaged for shipment.

Request No. 10:
Describe how the Company came to possess the hazardous substances that came to be located at the Site.

Response No. 10:
USEPA's March 28, 2019 Request for Information included as Attachment D a Hazardous Waste Manifest which purportedly shows that OIPR sent 75,360 pounds of furnace repair rubble (Waste No. D007) to Servicios Carbareon Inc. in January 1985. While Owens has been unable to locate any information or documents pertaining to this Hazardous Waste Manifest, it is likely that OIPR came to possess the rubble due to a glass melting furnace repair.

Request No. 11:
List all hazardous substances used, generated, treated, stored, disposed of, manufactured, recycled, recovered, treated, or otherwise processed during the Company's operations at the Facility.

Response No. 11:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Notwithstanding the foregoing and without waiving any of its objections, Owens has been unable to locate any information or documents within its custody or control that may be responsive to this request, other than the information provided in the following Exhibits:

Exhibit E:	**12/19/1983 Owens' Response to USEPA Request for Information**
Exhibit F:	**3/11/1997 USEPA's RCRA § 3007 Information Request**
Exhibit G:	**5/20/1997 OIPR's Response to USEPA's 3/11/1997 RCRA § 3007 Information Request**
Exhibit H:	**3/11/1997 USEPA's Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)**
Exhibit I:	**5/20/1997 OIPR's Response to USEPA's 3/11/1997 RCRA §9005 Request for Information**
Exhibit J:	**7/3/1997 USEPA's RCRA § 3007 Information Request #2**
Exhibit K:	**8/11/1997 OIPR's Response to USEPA's RCRA § 3007 Request for Information**

Exhibit L: **7/2/1997 USEPA's Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)**
Exhibit M: **8/11/1997 OIPR's Response to USEPA's RCRA § 9005 Request for Information**
Exhibit N: **10/28/1997 USEPA's RCRA § 3007 Information Request #3**
Exhibit O: **12/1/1997 OIPR's Response to USEPA's RCRA § 3007 Information Request #3**
Exhibit P: **10/28/1997 USEPA's Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA) – Request #3**
Exhibit Q: **12/1/1997 OIPR's Response to USEPA's RCRA § 9005 Request for Information**
Exhibit R: **12/24/1997 OIPR's Response to RCRA § 3007 and § 9005 Requests for Information**
Exhibit S: **1/5/1998 OIPR's Response to RCRA § 3007 Request for Information**

Request No. 12:
List and fully describe all waste streams generated from the Company's operations, including solid, liquid, or any other type of waste.

Response No. 12:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 13:
Describe in detail the handling, storage, and disposal practices employed by the Company for each waste stream resulting from the Company's operations.

Response No. 13:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 14:

Identify all individuals who had responsibility for the Company's environmental and waste management decisions between 1975 and 1999 (e.g., responsibility for decisions regarding the disposal, treatment, storage, recycling, or sale of the Company's hazardous substances, hazardous wastes, and industrial wastes).

a. *Provide each such individual's job title, duties, dates performing those duties, supervisors for those duties, current position, and if applicable, the date of the individual's resignation or termination.*
b. *Provide the nature of the information possessed by each such individual concerning the Company's waste management.*

Response No. 14:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 15:

For each type of hazardous substance, hazardous waste, and industrial waste used or generated by the Company, describe the Company's agreements or other arrangements for its disposal, treatment, storage, recycling, or sale.

a. *Provide any agreement and document, including waste logs, journals, manifests, or notes, related to any transfer of hazardous substances, hazardous wastes, and industrial wastes from the Company's Facility that came to be located at the Site.*
b. *Provide all correspondence and written communications between the Company and each owner/operator of the Site regarding the Company's hazardous substances, hazardous wastes, and industrial wastes that came to be located at the Site.*

Response No. 15:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 16:

Provide agreements and documents related to the following, including waste logs, journals, manifests, or notes, as set forth below:

a. *The locations where the Company sent each type of hazardous substance, hazardous waste, and industrial waste for disposal, treatment, or recycling;*
b. *List all Waste Transporters used by the Company;*
c. *For each type of hazardous substance, hazardous waste, and industrial waste, specify which Waste Transporter picked it up;*
d. *For each type of hazardous substance, hazardous waste, and industrial waste, state how frequently each Waste Transporter picked up such waste;*
e. *For each type of hazardous substance, hazardous waste, and industrial waste, provide the volume picked up by each Waste Transporter (per week, month, or year);*
f. *For each type of hazardous substance, hazardous waste, and industrial waste, identify the dates (beginning & ending) such waste was picked up by each Waste Transporter;*
g. *Indicate the ultimate location for each type of hazardous substance, hazardous waste, and industrial waste. Provide all documents indicating the ultimate disposal/recycling/treatment location for each type of hazardous substance, hazardous waste, and industrial waste;*
h. *Describe how the Company managed pickups of each hazardous substance, hazardous waste, and industrial waste including but not limited to:*
    i. *The method for inventorying each type of hazardous substance, hazardous waste, and industrial waste;*
    ii. *The method for requesting each type of hazardous substance, hazardous waste, and industrial waste to be picked up;*
    iii. *The identity of the Waste Transporter employee/agent contacted for pickup of each type of hazardous substance, hazardous waste, and industrial waste; and*
    iv. *The amount paid or the rate paid for the pickup of each type of hazardous substance, hazardous waste, and industrial waste;*
i. *Identify the individual or organization that selected the location where each of the Company's wastes were taken. Describe the basis for and provide any documents supporting the answer to this Request.*

Response No. 16:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its

objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 17:

If not already provided, specify the dates and circumstances when the Company's hazardous substances, hazardous wastes, and/or industrial wastes were sent, brought, or moved to the Site, and identify the names, addresses, and telephone numbers of the person(s) making arrangements for the containers (e.g., 55-gallon drum, dumpster, etc.) holding hazardous substances, hazardous wastes, and/or industrial wastes to be sent, brought, or transported to the Site. Please also provide all documents that support or memorialize the answer to this Request.

Response No. 17:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 18:

Identify, describe, and provide all documents that refer or relate to the following:

a. *The nature, including the chemical content, characteristics, physical state (e.g., solid, liquid), and quantity (volume and weight) of all hazardous substances, hazardous wastes, and industrial wastes involved in each arrangement transferring materials from any facility owned or operated by the Company (including the Facility) to any other facility;*
b. *In general terms, the nature and quantity of the non-hazardous substances involved in each such arrangement;*
c. *The hazardous substances being mixed or combined with other hazardous substances or non-hazardous substances for each such arrangement. Indicate whether such mixing or combining is common in the industry. Indicate whether the Company was ever asked to stop mixing or combining the hazardous substances with the non-hazardous substances;*
d. *Other materials other than the hazardous substances that were involved in the transaction;*
e. *The condition of the transferred material containing hazardous substances when it was stored, disposed of, treated, or transported for disposal or treatment;*
f. *The markings on and type, condition, and number of containers in which the hazardous materials were contained when they were stored, disposed, treated, or transported for disposal or treatment; and*
g. *All tests, analyses, analytical results, and manifests concerning each hazardous*

substance, hazardous waste, and industrial waste involved in each transaction. Include information regarding who conducted the test and how the test was conducted (batch sampling, representative sampling, splits, composite, etc.).

Response No. 18:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 19:

Indicate how long the Company has had a relationship with the owner(s) and/or operator(s) of the Site.

Response No. 19:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 20:

Identify any individuals, including former and current employees, who may be knowledgeable of the Company's operations and practices concerning the handling, storage, and disposal of hazardous substances.

Response No. 20:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request, other than the information provided in response to Request No. 11.

Request No. 21:
Please provide all documents, if not already requested above, that support your responses to Requests #1 - #20, above.

Response No. 21:
See Attached Exhibits.

Request No. 22:
If any of the documents solicited in this information request are no longer available, please indicate the reason why they are no longer available. If the records were destroyed, provide us with the following:

a. *The Company's document retention policy between 1975 and 2018;*
b. *A description of how the records were destroyed (burned, trashed, etc.) and the approximate date of destruction;*
c. *A description of the type of information that would have been contained in the documents;*
d. *The name, job title, and most current address known by you of the person(s) who would have produced these documents, the person(s) who would have been responsible for the retention of these documents, the person(s) who would have been responsible for the destruction of these documents, and the person(s) who had and/or still may have the originals or copies of these documents; and*
e. *The names and most current address of any person(s) who may possess documents relevant to this inquiry.*

Response No. 22:
In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Notwithstanding the foregoing and without waiving any of its objections, Owens provides the following information:

See Exhibit T for Record Retention Policies from August 1985 to present.

Request No. 23:
Please provide copies of the Company's financial statements, shareholder's reports, financial audits, or other financial reports showing its assets, profits, liabilities, and current financial status for the last five years.

Response No. 23:
See Response to Request No. 1.

Request No. 24:

List and provide a copy of all agreements or contracts, including but not limited to insurance policies and indemnification agreements, held or entered into by the Company or its parent corporation(s), subsidiary, or subsidiaries that could indemnify it against any liability that it may have under CERCLA for releases or threatened releases of hazardous substances at and from the Facility. In response to this Request, please provide not only those insurance policies and agreements that currently are in effect, but also provide those that were in effect during the period(s) when any hazardous substances, hazardous wastes, and/or industrial wastes may have been released or threatened to be released into the environment at or from the Facility.

Response No. 24:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request.

Request No. 25:

State whether any claim or claims have been made by the Company to any insurance company for any loss or damage related to operation at the Site, and if so, identify each claim by stating the name of the claimant, the name and address of the insurance company, the policy number, the named insured on the policy, claim number, date of claim, amount of claim, the specific loss or damage claimed, the current status of the claim, and the amount, date, and recipient of any payment made on the claim.

Response No. 25:

In addition to the General Objections set forth above, Owens objects to this request as overbroad in scope, unauthorized by law to the extent it is overbroad, and unduly burdensome. Owens has operations throughout the world; waste streams generated at facilities in locations other than Puerto Rico are not relevant to this response. Notwithstanding the foregoing, and without any waiver of its objections, Owens has located no information or document within its custody or control that may be responsive to this request.

Request No. 26:

If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question contained herein or who may be able to provide additional responsive documents, identify such persons and the additional information or documents that they may have.

Response No. 26:

Notwithstanding the foregoing, and without any waiver of its objections, Owens has

located no other persons other than those identified in the response to Request No. 27, who may be able to provide a more detailed or complete response to any question contained herein or who may be able to provide additional responsive documents.

Request No. 27:

State the name, title, and address of each individual who assisted or was consulted in the preparation of the response to this Request for Information. In addition, state whether this person has personal knowledge of the information in the answers provided.

Response No. 27:

Personal knowledge:

Hector Negron
Former OIPR employee
P.O. Box 387
Vega Alta, PR 00762

Milton Rosa
Former OIPR employee
Phone: 787-898-5000

David Irizarry
Former OIPR employee
Phone: 419-215-7608

Assisted with responses:

Suzanne Crawford
Litigation Administration Manager
Owens-Illinois, Inc.
One Michael Owens Way, Plaza One
Perrysburg, OH 43551

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that I am under a continuing obligation to supplement my response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or my response thereto should become known or available to me.

John F. Cayton
NAME (print or type)

Attorney
TITLE (print or type)

SIGNATURE

NOTARIAL SEAL
STATE OF OHIO

BRENDA CORR
NOTARY PUBLIC - OHIO
MY COMMISSION EXPIRES 07-02-2019

Sworn to before me this

3 day of June 2019.

Notary Public Brenda Corr

EXHIBIT A

March 28, 2019 USEPA's Notice of Potential Liability and Request for Information

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NEW YORK 10007-1866

MAR 2 8 2019

URGENT LEGAL MATTER
PROMPT REPLY NECESSARY
CERTIFIED MAIL: RETURN RECEIPT REQUESTED

MaryBeth Wilkinson, General Counsel
Owens-Illinois, Inc.
One Michael Owens Way
Perrysburg, OH 43551-2999

Re: Notice of Potential Liability and Request for Information Pursuant to Sections 107(a) and 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675, relating to the PROTECO Site in Peñuelas, Puerto Rico

Dear Ms. Wilkinson:

The United States Environmental Protection Agency ("EPA") is charged with responding to releases or threatened releases of hazardous substances, pollutants, and/or contaminants into the environment, and with enforcement responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601-9675 ("CERCLA"), also known as the "Superfund" law. For your information, a copy of the Superfund law may be found at www.epa.gov/superfund.

EPA has documented the release or threatened release of hazardous substances into the environment at the PROTECO Site ("the Site"), which is located at Road 385, Km 4.4, Bo. Tallaboa, Peñuelas, Puerto Rico. The Site is the location of a former hazardous waste treatment, storage, and disposal facility ("TSDF"). Operations at the TSDF began in 1975 under the name Servicios Carbareon, Inc.; in 1985, the name was changed to Protección Técnica Ecológica Corp. (i.e., "PROTECO"), which was succeeded by Resources Management, Inc. doing business as PROTECO. During its years of operation, the TSDF accepted a variety of wastes from multiple sources, including electroplating sludge, wastewater treatment plant sludge, slurries, petroleum wastes, pesticide wastes, and pharmaceutical and manufacturing wastes. Historical records indicate that PROTECO accepted hazardous waste from the Owens-Illinois de Puerto Rico

facility located at Road 690 KM 1.1 in Vega Alta, Puerto Rico. (See Attachment D to this letter). According to court records, Owens-Illinois de Puerto Rico was a commercial partnership, and Owens-Illinois, Inc. was a principal partner of Owens-Illinois de Puerto Rico.

In November 1980, PROTECO submitted a Part A Permit Application pursuant to the Resource Conservation and Recovery Act ("RCRA"), thus entering interim status. In 1987, EPA and PROTECO entered into a consent decree stipulating that PROTECO would perform injunctive relief with respect to RCRA violations. In November 1997, after it became apparent that PROTECO had continued to violate RCRA regulations and provisions of the original consent decree, EPA and PROTECO entered into an amended consent decree requiring the TSDF to meet RCRA closure and post-closure care requirements. PROTECO conducted closure of waste units from November 1997 to February 1999 and conducted some post-closure maintenance but stopped performing post-closure care altogether sometime between 2001 and 2009. Since then, EPA inspectors have confirmed that PROTECO is not maintaining the Site and is out of compliance with post-closure care provisions of the amended consent decree.

On May 17, 2018, the Site was proposed to be added to the "National Priorities List," EPA's list of releases and potential releases of hazardous substances, pollutants, and contaminants that appear to pose the greatest threat to public health, welfare, and the environment, established under Section 105(a) of CERCLA, 42 U.S.C. § 9605(a). In response to these releases and threatened releases, EPA has spent public funds and EPA anticipates spending additional public funds at the Site. The Site has not yet been finalized on the National Priorities List.

NOTICE OF POTENTIAL LIABILITY

Under CERCLA, responsible parties may be held liable for all monies expended by the federal government in taking response actions in connection with a site where hazardous substances have been released – including the cost of EPA's investigative, planning, removal, remedial, and enforcement actions. Responsible parties also may be ordered by EPA to take response actions themselves. Responsible parties under CERCLA include current and former owners and operators of a Site, as well as persons who arranged for treatment and/or disposal of any hazardous substances found at the Site, and persons who accepted hazardous substances for transport and selected the Site to which the hazardous substances were delivered.

By this letter, we notify you that Owens-Illinois, Inc. is a potentially responsible party for the Site, as an arranger, who by contract or arrangement, arranged for the disposal or treatment of hazardous substances at the Site, or transportation of such substances to the Site, pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a). Please note that EPA has also identified a number of other potentially responsible parties. A list of identified parties, current as of the date of this letter, is enclosed as Attachment C.

REQUEST FOR INFORMATION

This letter also seeks your cooperation in providing information and documents relating to the contamination of the Site. We encourage you to give this matter your immediate attention and

request that you provide a complete and truthful response to the attached Request for Information **within 21 calendar days** of your receipt of this letter.

Under Section 104(e)(2) of CERCLA, 42 U.S.C. § 9604(e)(2), EPA has broad information gathering authority to require persons to provide the following: information and/or documents relating to materials generated, treated, stored, or disposed of at, or transported to a facility; the nature or extent of a release or threatened release of a hazardous substance, pollutant, or contaminant at or from a facility; and the ability of a person to pay for or perform a cleanup.

While EPA seeks your cooperation in this investigation, your compliance with the attached Request for Information is required by law. In preparing your response to this Request for Information, please follow the instructions provided in Attachment A.

When you have prepared your response to the Request for Information, please sign and have notarized the enclosed "Certification of Answers to Request for Information," and return and/or scan and email that Certification to EPA along with your response. Please note that false, fictitious, or fraudulent statements or representations may subject you to civil or criminal penalties under federal law. In addition, Section 104 of CERCLA, 42 U.S.C. § 9604, authorizes EPA to pursue penalties for failure to comply with a Request for Information.

Some of the information EPA is requesting may be considered by you to be confidential business information. Please be aware that you may not withhold the information on that basis. If you wish EPA to treat all or part of the information confidentially, you must advise EPA of that fact by following the procedures described in the Instructions included in Attachment A, including the required support of your claim of confidentiality.

If you have information about other parties who may have information that may assist EPA in its investigation of the Site, or may be responsible for the material stored or disposed of at the Site, that information should be submitted within the time frame noted above. Please note that if after submitting your response you obtain additional or different information concerning the matters addressed by our Request for Information, you must promptly notify EPA and turn over the additional or different information to EPA.

This Information Request is not subject to the approval requirements of the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501-3520.

Your response to this Request for Information, which we encourage you to submit electronically, should be sent to the following:

Andrea Leshak, Esq.
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
290 Broadway, 17th Floor
New York, New York 10007-1866
leshak.andrea@epa.gov

and to:

Zolymar Luna
Caribbean Environmental Protection Division
U.S. Environmental Protection Agency, Region 2
City View Plaza II, Suite 7000
#48 Rd 165, km 1.2
Guaynabo, Puerto Rico 00968-8069
luna.zolymar@epa.gov

If you have any questions regarding this letter, or would like to discuss the matter with EPA, you may call Ms. Luna at (787) 977-5844 or email her at the email address listed above. Please direct all inquiries from an attorney to Ms. Leshak at (212) 637-3197 or at the email address listed above.

We appreciate your attention to this matter and look forward to your prompt response to this letter.

Sincerely yours,

Eric J. Wilson
Deputy Director for Enforcement and Homeland Security
Emergency and Remedial Response Division

Enclosures

ATTACHMENT A

INSTRUCTIONS FOR RESPONDING TO REQUEST FOR INFORMATION

DIRECTIONS

1. Answer Every Question Completely. A separate response must be made to each of the questions set forth in this Request for Information. For each question contained in **Attachment B** of this letter, if information responsive to this Request for Information is not in your possession, custody, or control, please identify the person(s) from whom such information may be obtained.

2. Number Each Answer. Precede each answer with the corresponding number of the question and the subpart to which it responds.

3. Provide the Best Information Available. Provide responses to the best of your ability, even if the information sought was never put down in writing or if the written documents are no longer available. You should seek out responsive information from current and former employees and/or agents. Submission of cursory responses when other responsive information is available to you will be considered non-compliance with this Request for Information. Whenever in this Request for Information there is a request to identify a natural person or an entity, state, among other things, the person or entity's full name and present or last known address.

4. Identify Sources of Answers. For each question, identify (see Definitions) all the persons and documents that you relied on in producing your answer.

5. Inability to Answer or Provide Documents. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and telephone number and the reason for your belief.

6. Documents. If anything is deleted from a document produced in response to this Request for Information, state the reason for, and the subject matter of, the deletion. If a document is requested but is not available, state the reason for its unavailability.

7. Continuing Obligation to Provide and to Correct Information. If additional information or documents responsive to this Request for Information become known or available to you after you respond to this Request for Information, EPA hereby requests pursuant to Section 104(e) of CERCLA that you supplement your response to EPA. If after submitting your response, you discover that information you submitted is incorrect, it is necessary that you promptly notify EPA and correct such information.

8. Confidential Information. The information requested herein must be provided even though you may contend that it includes confidential information or trade secrets. You may assert a confidentiality claim covering part or all of the information requested, pursuant to Sections 104(e)(7)(E) and (F) of CERCLA, 42 U.S.C. §§ 9604(e)(7)(E) and (F), and 40 C.F.R. Part 2.203(b). To prove your claim of confidentiality, each document must separately address the following points:

a. the portions of the information alleged to be entitled to confidential treatment;
b. the period of time for which confidential treatment is desired (e.g., until a certain date, until the occurrence of a specific event, or permanently);
c. measures taken by you to guard against the undesired disclosure of the information to others;
d. the extent to which the information has been disclosed to others, and the precautions taken in connection therewith;
e. pertinent confidentiality determinations, if any, by EPA or other federal agencies, and a copy of any such determinations or reference to them, if available; and
f. whether you assert that disclosure of the information would be likely to result in substantial harmful effect on your business's competitive position and, if so, what those harmful effects would be, why they should be viewed as substantial, and an explanation of the causal relationship between disclosure and such harmful effects.

To make a confidentiality claim, please stamp or type "CONFIDENTIAL" on all responses and any related documents you assert to be confidential. Confidential portions of otherwise non-confidential documents should be clearly identified. You should indicate a date, if applicable, after which the information need no longer be treated as confidential. Please submit in separate envelopes both a clean and a redacted version of any documents or response for which you make a claim of confidentiality.

All confidentiality claims are subject to EPA verification. It is important that you satisfactorily show that you have taken reasonable measures to protect the confidentiality of the information and that you intend to continue to do so and that it is not and has not been obtainable by legitimate means without your consent. Information covered by such claim will be disclosed by EPA only to the extent permitted by Section 104(e) of CERCLA. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

9. Disclosure to EPA Contractor. Information that you submit in response to this Request for Information may be disclosed by EPA to authorized representatives of the United States, pursuant to 40 C.F.R. Part 2.310(h), even if you assert that all or part of it is confidential business information. Please be advised that EPA may disclose all responses to this Request for Information to one or more of its private contractors for the purpose of organizing and/or analyzing the information contained in the responses to this Request for Information. Pursuant to 40 C.F.R. Part 2.310(h), private contractors must sign a

contractual agreement that prohibits the disclosure of such information to anyone other than EPA without the prior written approval of each affected business or of an EPA legal office. If you are submitting information that you assert is entitled to treatment as confidential business information, you may comment on this intended disclosure within fourteen (14) days of receiving this Request for Information.

10. Personal Privacy Information. Personnel and medical files and similar files the disclosure of which to the general public may constitute an invasion of privacy should be segregated from your responses, included on separate sheet(s), and marked as "Personal Privacy Information."

11. Objections to Questions. If you have objections to some or all the questions within the Request for Information letter, you are still required to respond to each of the questions.

DEFINITIONS

The following definitions shall apply to the following words insofar as they appear in this Request for Information.

1. The term "arrangement" means every separate contract or other agreement between two or more persons, whether written or oral.

2. The term "Company" shall mean Owens-Illinois, Inc. and its predecessors and successors, as they were or currently are named and constituted, and all subsidiaries, divisions, affiliates, and branches.

3. The term "disposal" shall mean the discharge, deposit, injection, dumping, spilling, leaking, or placing of any material and/or hazardous substance into or on any land or water so that such material and/or hazardous substance or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

4. The term "documents" includes any written, recorded, computer-generated, visually, or aurally reproduced material of any kind in any medium in your possession, custody, or control or known by you to exist, including originals, all prior drafts, and all non-identical copies.

5. The term "entity" or "entities" refers to persons, individuals, companies, partnerships, or any other type of business association.

6. The term "Facility" shall mean the location of the Owens-Illinois de Puerto Rico facility located at Road 690 KM 1.1 in Vega Alta, Puerto Rico.

7. The term "hazardous substance" shall have the same definition as that contained in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and includes any mixtures of such hazardous substances with any other substances, including mixtures of hazardous substances with petroleum products or other nonhazardous substances. The substances that have been designated as hazardous substances pursuant to Section 102(a) of CERCLA, 42 U.S.C. § 9602(a), (which, in turn, comprise a portion of the substances that fall within the definition of "hazardous substance" under Section 101(14) of CERCLA) are set forth at 40 C.F.R. Part 302.

8. The term "hazardous waste" shall have the same definition as that contained in Section 1004(5) of the Resource Conservation and Recovery Act, as amended ("RCRA"), 42 U.S.C. § 6903(5).

9. The term "identify" means, with respect to a natural person, to set forth the person's full name, present or last known employer, business address, and business telephone number, as well as the present or last known home address and home telephone number. With respect to a corporation, partnership, or other business entity (including a sole proprietorship), the term "identify" means to provide its full name, address, and any affiliation or contractual relationship it has with the individual and/or Company to whom/which this Request for Information is addressed.

10. The term "industrial waste" shall mean any solid, liquid, or sludge or any mixtures thereof that possess <u>any</u> of the following characteristics:

    a. it contains one or more "hazardous substances" (at any concentration) as defined in Section 101(14) of CERCLA;
    b. it is a "hazardous waste" as defined in Section 1004(5) of RCRA;
    c. it has a pH less than 2.0 or greater than 12.5;
    d. it reacts violently when mixed with water;
    e. it generates toxic gases when mixed with water;
    f. it easily ignites or explodes;
    g. it is an industrial waste product;
    h. it is radioactive;
    i. it is an industrial treatment plant sludge or supernatant;
    j. it is an industrial byproduct having some market value;
    k. it is coolant water or blowdown waste from a coolant system;
    l. it is a spent product that could be reused after rehabilitation; or
    m. it is any material that you have reason to believe would be toxic if either ingested, inhaled, or placed in contact with skin.

11. The term "material" or "materials" means any and all objects, goods, substances, or matter of any kind, including but not limited to wastes.

12. The term "person" shall include any individual, firm, unincorporated association, partnership, corporation, trust, or other entity.

13. The term "release" shall have the same definition as that contained in Section 101(22) of CERCLA, and includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, including but not limited to the abandonment or discharging of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant.

14. The term "Site" shall mean the PROTECO Site, including the real property located at Road 385, Km 4.4, Bo. Tallaboa, Peñuelas, Puerto Rico.

15. The term "treatment" or "treat" shall mean any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any material and/or hazardous substance so as to neutralize such material and/or hazardous substance or so as to render such material and/or hazardous substance nonhazardous, safer for transport, amenable for recovery, amendable for storage, or reduced in volume. Such terms include any activity or processing designed to change the physical form or chemical composition of a material and/or hazardous substance so as to render it nonhazardous.

16. The term "waste" or "wastes" shall mean and include trash, garbage, refuse, by-products, solid waste, hazardous waste, hazardous substances, and pollutants or contaminants, whether solid, liquid, or sludge, including but not limited to containers for temporary or permanent holding of such wastes.

17. The term "waste transporters" shall mean persons who picked up hazardous substances from the Company or who otherwise transported hazardous substances away from the Company's Facility.

18. The term "you" shall mean the addressee of this Request for Information.

19. All terms not defined herein shall have their ordinary meaning, unless such terms are defined in CERCLA or RCRA, in which case the statutory definitions shall apply.

ATTACHMENT B

REQUEST FOR INFORMATION

1. Answer the following questions regarding the Company:

    a. State the correct legal name and mailing address for the Company;
    b. State the name(s) and address(es) of the President, Chief Executive Officer, and the Chairman of the Board (or other presiding officer) of the Company;
    c. Identify the state/commonwealth and date of incorporation of the Company and the name of its agents for service of process in the state/commonwealth of incorporation and in Puerto Rico, if different; and
    d. Identify any successor corporations, predecessor corporations, or other entities related to the Company. If the Company is or was a subsidiary or affiliate of another corporation or other entity, identify each of those other entities' Chief Executive Officers, Presidents, and Chairpersons of the Board. Identify the state/commonwealth of incorporation and agents for service of process in the state/commonwealth of incorporation and in Puerto Rico, if different, for each entity identified in your response to this question.

2. Describe the current and past business relationship between the Company and Owens-Illinois de Puerto Rico.

3. State the corporate history of the Company, including all name changes and mergers. List all names under which the Company has operated and has been incorporated. For each other name, provide the following information:

    a. Whether that other company or business continues to exist, indicating the date and means by which it ceased operations (e.g., dissolution, bankruptcy, sale) if it is no longer in business;
    b. Names, addresses, and telephone numbers of all registered agents, officers, and operations management personnel; and
    c. Names, addresses, and telephone numbers of all subsidiaries, unincorporated divisions or operating units, affiliates, and parent corporations if any, of that other company.

4. Identify all changes in ownership relating to the Company from its date of incorporation to the present, including the date of any ownership change. If any owner was/is a corporation, identify if the corporation was a subsidiary or division of another corporation. In your identification of any corporation, it is requested that you provide the full corporate name, the state/commonwealth of incorporation, and all fictitious names used/held by that corporation.

5. For each owner that is a subsidiary of another corporation identified in your answer to Request #4, above, please provide a chart that details the corporate structure from that

other company through all intermediary entities to the ultimate corporate parent. For purposes of this information request, the term "ultimate corporate parent" means the corporate entity that, while owning or controlling the majority of the shares of common stock in a subsidiary corporation, is not primarily owned/controlled by another corporation.

6. Provide copies of the Company's authority to do business in Puerto Rico. Include all authorizations, withdrawals, suspensions, and reinstatements.

7. State the dates during which the Company owned, operated, or leased any portion of the Facility, and provide copies of all documents evidencing or relating to such ownership, operation, or lease, including but not limited to purchase and sale agreements, deeds, leases, etc.

8. Indicate whether the Company has ever operated at a location other than the Facility. If yes, provide the correct names and addresses of the Company's other facilities where the Company carried out its operations.

9. Describe in detail the nature of the business and the operations conducted at the Facility and at any locations identified in response to Request #8, above, during the period that the Company operated there. Provide a brief description of the Company's operations at each facility, including the following:

    a. The date such operations commenced and concluded; and
    b. The types of work performed at each facility, including but not limited to the industrial, chemical, or institutional processes and treatments undertaken at each facility.

10. Describe how the Company came to possess the hazardous substances that came to be located at the Site.

11. List all hazardous substances used, generated, treated, stored, disposed of, manufactured, recycled, recovered, treated, or otherwise processed during the Company's operations at the Facility.

12. List and fully describe all waste streams generated from the Company's operations, including solid, liquid, or any other type of waste.

13. Describe in detail the handling, storage, and disposal practices employed by the Company for each waste stream resulting from the Company's operations.

14. Identify all individuals who had responsibility for the Company's environmental and waste management decisions between 1975 and 1999 (e.g., responsibility for decisions

regarding the disposal, treatment, storage, recycling, or sale of the Company's hazardous substances, hazardous wastes, and industrial wastes).

a. Provide each such individual's job title, duties, dates performing those duties, supervisors for those duties, current position, and if applicable, the date of the individual's resignation or termination.
b. Provide the nature of the information possessed by each such individual concerning the Company's waste management.

15. For each type of hazardous substance, hazardous waste, and industrial waste used or generated by the Company, describe the Company's agreements or other arrangements for its disposal, treatment, storage, recycling, or sale.

a. Provide any agreement and document, including waste logs, journals, manifests, or notes, related to any transfer of hazardous substances, hazardous wastes, and industrial wastes from the Company's Facility that came to be located at the Site.
b. Provide all correspondence and written communications between the Company and each owner/operator of the Site regarding the Company's hazardous substances, hazardous wastes, and industrial wastes that came to be located at the Site.

16. Provide agreements and documents related to the following, including waste logs, journals, manifests, or notes, as set forth below:

a. The locations where the Company sent each type of hazardous substance, hazardous waste, and industrial waste for disposal, treatment, or recycling;
b. List all Waste Transporters used by the Company;
c. For each type of hazardous substance, hazardous waste, and industrial waste, specify which Waste Transporter picked it up;
d. For each type of hazardous substance, hazardous waste, and industrial waste, state how frequently each Waste Transporter picked up such waste;
e. For each type of hazardous substance, hazardous waste, and industrial waste, provide the volume picked up by each Waste Transporter (per week, month, or year);
f. For each type of hazardous substance, hazardous waste, and industrial waste, identify the dates (beginning & ending) such waste was picked up by each Waste Transporter;
g. Indicate the ultimate location for each type of hazardous substance, hazardous waste, and industrial waste. Provide all documents indicating the ultimate disposal/recycling/treatment location for each type of hazardous substance, hazardous waste, and industrial waste;
h. Describe how the Company managed pickups of each hazardous substance, hazardous waste, and industrial waste including but not limited to:

i. The method for inventorying each type of hazardous substance, hazardous waste, and industrial waste;
ii. The method for requesting each type of hazardous substance, hazardous waste, and industrial waste to be picked up;
iii. The identity of the Waste Transporter employee/agent contacted for pickup of each type of hazardous substance, hazardous waste, and industrial waste; and
iv. The amount paid or the rate paid for the pickup of each type of hazardous substance, hazardous waste, and industrial waste;

i. Identify the individual or organization that selected the location where each of the Company's wastes were taken. Describe the basis for and provide any documents supporting the answer to this Request.

17. If not already provided, specify the dates and circumstances when the Company's hazardous substances, hazardous wastes, and/or industrial wastes were sent, brought, or moved to the Site, and identify the names, addresses, and telephone numbers of the person(s) making arrangements for the containers (e.g., 55-gallon drum, dumpster, etc.) holding hazardous substances, hazardous wastes, and/or industrial wastes to be sent, brought, or transported to the Site. Please also provide all documents that support or memorialize the answer to this Request.

18. Identify, describe, and provide all documents that refer or relate to the following:

a. The nature, including the chemical content, characteristics, physical state (e.g., solid, liquid), and quantity (volume and weight) of all hazardous substances, hazardous wastes, and industrial wastes involved in each arrangement transferring materials from any facility owned or operated by the Company (including the Facility) to any other facility;
b. In general terms, the nature and quantity of the non-hazardous substances involved in each such arrangement;
c. The hazardous substances being mixed or combined with other hazardous substances or non-hazardous substances for each such arrangement. Indicate whether such mixing or combining is common in the industry. Indicate whether the Company was ever asked to stop mixing or combining the hazardous substances with the non-hazardous substances;
d. Other materials other than the hazardous substances that were involved in the transaction;
e. The condition of the transferred material containing hazardous substances when it was stored, disposed of, treated, or transported for disposal or treatment;
f. The markings on and type, condition, and number of containers in which the hazardous materials were contained when they were stored, disposed, treated, or transported for disposal or treatment; and

g. All tests, analyses, analytical results, and manifests concerning each hazardous substance, hazardous waste, and industrial waste involved in each transaction. Include information regarding who conducted the test and how the test was conducted (batch sampling, representative sampling, splits, composite, etc.).

19. Indicate how long the Company has had a relationship with the owner(s) and/or operator(s) of the Site.

20. Identify any individuals, including former and current employees, who may be knowledgeable of the Company's operations and practices concerning the handling, storage, and disposal of hazardous substances.

21. Please provide all documents, if not already requested above, that support your responses to Requests #1 - #20, above.

22. If any of the documents solicited in this information request are no longer available, please indicate the reason why they are no longer available. If the records were destroyed, provide us with the following:

    a. The Company's document retention policy between 1975 and 2018;
    b. A description of how the records were destroyed (burned, trashed, etc.) and the approximate date of destruction;
    c. A description of the type of information that would have been contained in the documents;
    d. The name, job title, and most current address known by you of the person(s) who would have produced these documents, the person(s) who would have been responsible for the retention of these documents, the person(s) who would have been responsible for the destruction of these documents, and the person(s) who had and/or still may have the originals or copies of these documents; and
    e. The names and most current address of any person(s) who may possess documents relevant to this inquiry.

23. Please provide copies of the Company's financial statements, shareholder's reports, financial audits, or other financial reports showing its assets, profits, liabilities, and current financial status for the last five years.

24. List and provide a copy of all agreements or contracts, including but not limited to insurance policies and indemnification agreements, held or entered into by the Company or its parent corporation(s), subsidiary, or subsidiaries that could indemnify it against any liability that it may have under CERCLA for releases or threatened releases of hazardous substances at and from the Facility. In response to this Request, please provide not only those insurance policies and agreements that currently are in effect, but also provide those that were in effect during the period(s) when any hazardous substances, hazardous

wastes, and/or industrial wastes may have been released or threatened to be released into the environment at or from the Facility.

25. State whether any claim or claims have been made by the Company to any insurance company for any loss or damage related to operation at the Site, and if so, identify each claim by stating the name of the claimant, the name and address of the insurance company, the policy number, the named insured on the policy, claim number, date of claim, amount of claim, the specific loss or damage claimed, the current status of the claim, and the amount, date, and recipient of any payment made on the claim.

26. If you have reason to believe that there may be persons able to provide a more detailed or complete response to any question contained herein or who may be able to provide additional responsive documents, identify such persons and the additional information or documents that they may have.

27. State the name, title, and address of each individual who assisted or was consulted in the preparation of the response to this Request for Information. In addition, state whether this person has personal knowledge of the information in the answers provided.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State/Commonwealth of _____

County/Municipality of _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that I am under a continuing obligation to supplement my response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or my response thereto should become known or available to me.

_____

NAME (print or type)

_____

TITLE (print or type)

_____

SIGNATURE

Sworn to before me this

_____day of_____ 2019.

Notary Public

ATTACHMENT C

LIST OF LETTER RECIPIENTS

1. BASF Agrochemical Products BV d/b/a BASF Agricultural Products de Puerto Rico
2. Betteroads Asphalt, LLC
3. Brosval Chemicals, Inc.
4. Caribe General Electric Products, Inc.
5. Checkpoint Caribbean, Ltd.
6. EMD Millipore Corporation
7. Henkel Puerto Rico, Inc.
8. HP Inc.
9. Owens-Illinois, Inc.
10. Puerto Rico Electric Power Authority
11. Resources Management, Inc.
12. Roche Products Inc.
13. StarKist Co.

ATTACHMENT D

Environmental Quality Board

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD 090490285
Manifest Document No.: B-26
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Owens-Illinois de Puerto Rico
P.O. Box 387, Vega Alta, PR 00762

4. Generator's Phone (809) 883-5800

5. Transporter 1 Company Name: Servicios Carbareón INC.
6. US EPA ID Number: PRD091018622

7. Transporter 2 Company Name: None
8. US EPA ID Number:

9. Designated Facility Name and Site Address
Servicios Carbareón INC.
Road 385, Bo. Tallaboa
Peñuelas, PR 00724
10. US EPA ID Number: PRD091018622

A. State Manifest Document Number: N/A
B. State Generator's ID: ROAD 690 Km 1.1 VEGA ALTA, P.R.
C. State Transporter's ID: 6998RP 19
D. Transporter's Phone: (809) 836-2058
E. State Transporter's ID: N/A
F. Transporter's Phone: N/A
G. State Facility's ID: N/A
H. Facility's Phone: (809) 836-2058

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous wate, solid, N.O.S., ORM-E, NA 9189	01	DT	75360	P	D007
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
Furnace Repair Rubble

K. Handling Codes for Wastes Listed Above
Bulk truck with cover
D85

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

Printed/Typed Name: S. Kenneth Higgins
Signature: [signature]
Date: Month 01 Day 24 Year 85

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Luis Taboada
Signature: Luis Taboada
Date: Month 01 Day 24 Year 85

18. Transporter 2 Acknowledgement or Receipt of Materials
Printed/Typed Name: N/A
Signature:
Date: Month Day Year

19. Discrepancy Indication Space

PROCESADO
COMPUTADORA
MAY 23 1985
Area Control
Construcción de Terrenos

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: JUAN E. NEGRÓN
Signature: [signature]
Date: Month 01 Day 24 Year 85

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

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EXHIBIT B

Owens-Illinois, Inc.'s 10-K Reports 2014 through 2018

10-K

YEAR ENDING **12.31.2014**

Owens-Illinois, Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended
December 31, 2014

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-9576

OWENS-ILLINOIS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**22-2781933**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
One Michael Owens Way, Perrysburg, Ohio	**43551**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(567) 336-5000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.01 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of " large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value (based on the consolidated tape closing price on June 30, 2014) of the voting and non-voting common equity held by non-affiliates of Owens-Illinois, Inc. was approximately $6,514,118,000. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the Company. Such interpretation is not intended to be, and should not be construed to be, an admission by Owens-Illinois, Inc. or such directors or executive officers of the Company that such directors and executive officers of the Company are "affiliates" of Owens-Illinois, Inc., as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value of Owens-Illinois, Inc. outstanding as of January 31, 2015 was 164,222,147.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Owens-Illinois, Inc. Proxy Statement for The Annual Meeting of Share Owners To Be Held Tuesday, May 12, 2015 ("Proxy Statement") are incorporated by reference into Part III hereof.

TABLE OF GUARANTORS

Exact Name of Registrant As Specified In Its Charter	State/Country of Incorporation or Organization	Primary Standard Industrial Classification Code Number	I.R.S Employee Identification Number
Owens-Illinois Group, Inc	Delaware	6719	34-1559348
Owens-Brockway Packaging, Inc	Delaware	6719	34-1559346

The address, including zip code, and telephone number, of each additional registrant's principal executive office is One Michael Owens Way, Perrysburg, Ohio 43551; (567) 336-5000. These companies are listed as guarantors of the debt securities of the registrant. The consolidating condensed financial statements of the Company depicting separately its guarantor and non-guarantor subsidiaries are presented in the notes to the consolidated financial statements. All of the equity securities of each of the guarantors set forth in the table above are owned, either directly or indirectly, by Owens-Illinois, Inc.

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PART I

ITEM 1. BUSINESS

General Development of Business

Owens-Illinois, Inc. (the "Company"), through its subsidiaries, is the successor to a business established in 1903. The Company is the largest manufacturer of glass containers in the world with 75 glass manufacturing plants in 21 countries. It competes in the glass container segment of the rigid packaging market and is the leading glass container manufacturer in most of the countries where it has manufacturing facilities.

Company Strategy

The Company's ambition is to be the world's leading maker of brand-building glass containers, delivering unmatched quality, innovation and service to its customers; generating strong financial results for its investors; and providing a safe, motivating and engaging work environment for its employees. To accomplish this ambition, the Company is focused on the following objectives:

- **Reduce structural costs** through specific programs such as permanent footprint adjustments, asset optimization and global cost-cutting initiatives;
- **Grow selectively** by taking advantage of the Company's position in emerging markets around the world and strengthening the Company's positions in Europe and North America;
- **Deliver brand-building product innovation** to the Company's customers to help them build, develop and expand their brands; and
- **Invest strategically in process innovation and research and development** to reduce manufacturing costs and improve efficiency, flexibility, reliability and sustainability.

Reportable Segments

The Company has four reportable segments based on its geographic locations: Europe, North America, South America and Asia Pacific. Information as to sales, earnings from continuing operations before interest income, interest expense, and provision for income taxes and excluding amounts related to certain items that management considers not representative of ongoing operations ("segment operating profit"), and total assets by reportable segment is included in Note 2 to the Consolidated Financial Statements.

Products and Services

The Company produces glass containers for alcoholic beverages, including beer, flavored malt beverages, spirits and wine. The Company also produces glass packaging for a variety of food items, soft drinks, teas, juices and pharmaceuticals. The Company manufactures glass containers in a wide range of sizes, shapes and colors and is active in new product development and glass container innovation.

Customers

In most of the countries where the Company competes, it has the leading position in the glass container segment of the rigid packaging market based on sales revenue. The Company's largest customers consist mainly of the leading global food and beverage manufacturers, including (in alphabetical order) Anheuser-Busch InBev, Brown Forman, Carlsberg, Diageo, Heineken, Kirin, MillerCoors, Nestle, PepsiCo, Pernod Ricard, SABMiller, and Saxco International. No customer represents more than 10% of the Company's consolidated net sales.

The Company sells most of its glass container products directly to customers under annual or multi-year supply agreements. Multi-year contracts typically provide for price adjustments based on cost changes. The Company also sells some of its products through distributors. Many customers provide the Company with regular estimates of their product needs, which enables the Company to schedule glass container production to maintain reasonable levels of inventory. Glass container manufacturing facilities are generally located in close proximity to customers.

Markets and Competitive Conditions

The Company's principal markets for glass container products are in Europe, North America, South America and Asia Pacific.

Europe. The Company has a leading share of the glass container segment of the rigid packaging market in the European countries in which it operates, with 35 glass container manufacturing plants located in the Czech Republic, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the United Kingdom. These plants primarily produce glass containers for the beer, wine, champagne, spirits and food markets in these countries. The Company also has interests in two joint ventures that manufacture glass containers in Italy. Throughout Europe, the Company competes directly with a variety of glass container manufacturers including Verallia, Ardagh Group, Vetropack and Vidrala.

North America. The Company has 19 glass container manufacturing plants in the U.S. and Canada, and also has an interest in a joint venture that manufactures glass containers in the U.S. The Company has the leading share of the glass container segment of the U.S. rigid packaging market, based on sales revenue by domestic producers. The principal glass container competitors in the U.S. are the Ardagh Group and Anchor Glass Container. Imports from Canada, China, Mexico, Taiwan and other countries also compete in U.S. glass container segments. Additionally, there are several major consumer packaged goods companies that self-manufacture glass containers.

South America. The Company has 13 glass manufacturing plants in South America, located in Argentina, Brazil, Colombia, Ecuador and Peru. In South America, the Company maintains a diversified portfolio serving several markets, including beer, non-alcoholic beverages, spirits, flavored malt beverages, wine, food and pharmaceuticals. The region also has a large infrastructure for returnable/refillable glass containers. The Company competes directly with Verallia in Brazil and Argentina, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region.

Asia Pacific. The Company has 8 glass container manufacturing plants in the Asia Pacific region, located in Australia, China, Indonesia and New Zealand. It also has interests in joint venture operations in China, Malaysia and Vietnam. In Asia Pacific, the Company primarily produces glass containers for the beer, wine, food and non-alcoholic beverage markets. The Company competes directly with Orora Limited (formerly Amcor Limited) in Australia, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region. In China, the glass container segments of the packaging market are regional and highly fragmented with a large number of local competitors.

In addition to competing with other large and well-established manufacturers in the glass container segment, the Company competes in all regions with manufacturers of other forms of rigid packaging, principally aluminum cans and plastic containers. Competition is based on quality, price, service, innovation and the marketing attributes of the container. The principal competitors producing metal containers include Ball Corporation, Crown Holdings, Inc., Rexam plc, and Silgan Holdings Inc. The principal competitors producing plastic containers include Amcor, Consolidated Container Holdings, LLC, Reynolds Group Holdings Limited, Plastipak Packaging, Inc. and Silgan Holdings Inc.

The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches, aseptic cartons and bag-in-box containers.

The Company seeks to provide products and services to customers ranging from large multinationals to small local breweries and wineries in a way that creates a competitive advantage for the Company. The Company believes that it is often the glass container partner of choice because of its innovation and branding capabilities, its global footprint and its expertise in manufacturing know-how and process technology.

Seasonality

Sales of many glass container products such as beer, beverages and food are seasonal. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in South America are typically greater in the third and fourth quarters of the year.

Manufacturing

The Company has 75 glass manufacturing plants. It constantly seeks to improve the productivity of these operations through the systematic upgrading of production capabilities, sharing of best practices among plants and effective training of employees.

The Company also provides engineering support for its glass manufacturing operations through facilities located in the U.S., Australia, Poland, Colombia and Peru.

Suppliers and Raw Materials

The primary raw materials used in the Company's glass container operations are sand, soda ash, limestone and recycled glass. Each of these materials, as well as the other raw materials used to manufacture glass containers, has historically been available in adequate supply from multiple sources. One of the sources is a soda ash mining operation in Wyoming in which the Company has a 25% interest.

Energy

The Company's glass container operations require a continuous supply of significant amounts of energy, principally natural gas, fuel oil and electrical power. Adequate supplies of energy are generally available at all of the Company's manufacturing locations. Energy costs typically account for 10-25% of the Company's total manufacturing costs, depending on the cost of energy, the type of energy available, the factory location and the particular energy requirements. The percentage of total cost related to energy can vary significantly because of volatility in market prices, particularly for natural gas and fuel oil in volatile markets such as North America and Europe.

In North America, approximately 95% of the sales volume is represented by customer contracts that contain provisions that pass the price of natural gas to the customer, effectively reducing the North America segment's exposure to changing natural gas market prices. Also, in order to limit the effects of fluctuations in market prices for natural gas, the Company uses commodity forward contracts related to its forecasted requirements in North America. The objective of these forward contracts is to reduce potential volatility in cash flows and expense due to changing market prices. The Company continually evaluates the energy markets with respect to its forecasted energy requirements to optimize its use of commodity forward contracts.

In Europe and Asia Pacific, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of 12 months or less in Europe and one to three years in Asia Pacific. In South America, the Company enters into fixed price contracts for

its energy requirements. These contracts typically have terms of three years, with annual price adjustments for inflation and for certain contracts price adjustments for foreign currency variation.

Technical Assistance License Agreements

The Company has agreements to license its proprietary glass container technology and to provide technical assistance to a limited number of companies around the world. These agreements cover areas related to manufacturing and engineering assistance. The worldwide licensee network provides a stream of revenue to help support the Company's development activities. In the years 2014, 2013 and 2012, the Company earned $13 million, $16 million and $17 million, respectively, in royalties and net technical assistance revenue.

Research, Development and Engineering

Research, development and engineering constitute important parts of the Company's technical activities. Expenditures for these activities were $63 million, $62 million and $62 million for 2014, 2013 and 2012, respectively. The Company primarily focuses on advancements in the areas of product innovation, manufacturing process control, melting technology, automatic inspection, light-weighting and further automation of manufacturing activities. The Company's research and development activities are conducted at its corporate facilities in Perrysburg, Ohio. During 2013, the Company completed the construction of a new research and development facility at this location. This new facility has enabled the Company to expand its research and development capabilities.

The Company holds a large number of patents related to a wide variety of products and processes and has a substantial number of patent applications pending. While the aggregate of the Company's patents are of material importance to its businesses, the Company does not consider that any patent or group of patents relating to a particular product or process is of material importance when judged from the standpoint of any individual segment or its businesses as a whole.

Sustainability and the Environment

The Company is committed to reducing the impact its products and operations have on the environment. As part of this commitment, the Company has set targets for increasing the use of recycled glass in its manufacturing process, while reducing energy consumption and carbon dioxide equivalent ("CO_2") emissions. Specific actions taken by the Company include working with governments and other organizations to establish and financially support recycling initiatives, partnering with other entities throughout the supply chain to improve the effectiveness of recycling efforts, reducing the weight of glass packaging and investing in research and development to reduce energy consumption in its manufacturing process. The Company invests in technology and training to improve safety, reduce energy use, decrease emissions and increase the amount of cullet, or recycled glass, used in the production process.

The Company's worldwide operations, in addition to other companies within the industry, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. The Company strives to abide by and uphold such laws and regulations.

Glass Recycling and Bottle Deposits

The Company is an important contributor to recycling efforts worldwide and is among the largest users of recycled glass containers. If sufficient high-quality recycled glass were available on a consistent basis, the Company has the technology to make glass containers containing a high proportion of

recycled glass. Using recycled glass in the manufacturing process reduces energy costs and impacts the operating life and efficiency of the glass melting furnaces.

In the U.S., Canada, Europe and elsewhere, government authorities have adopted or are considering legal requirements that would mandate certain recycling rates, the use of recycled materials, or limitations on or preferences for certain types of packaging. The Company believes that governments worldwide will continue to develop and enact legal requirements around guiding customer and end-consumer packaging choices.

Sales of beverage containers are affected by governmental regulation of packaging, including deposit laws and extended producer responsibility regulations. As of December 31, 2014, there were a number of U.S. states, Canadian provinces and territories, European countries and Australian states with some form of incentive for consumer returns of glass bottles in their law. The structure and enforcement of such laws and regulations can impact the sales of beverage containers in a given jurisdiction. Such laws and regulations also impact the availability of post-consumer recycled glass for the Company to use in container production.

A number of states and provinces have recently considered or are now considering laws and regulations to encourage curbside, deposit and on-premise glass recycling. Although there is no clear trend in the direction of these state and provincial laws and proposals, the Company believes that states and provinces, as well as municipalities within those jurisdictions, will continue to adopt recycling laws, which will impact supplies of recycled glass. As a large user of recycled glass for making new glass containers, the Company has an interest in laws and regulations impacting supplies of such material in its markets.

Air Emissions

In Europe, the European Union Emissions Trading Scheme ("EUETS") is in effect to facilitate emissions reduction. The Company's manufacturing facilities which operate in EU countries must restrict the volume of their CO_2 emissions to the level of their individually allocated emissions allowances as set by country regulators. If the actual level of emissions for any facility exceeds its allocated allowance, additional allowances can be bought to cover deficits; conversely, if the actual level of emissions for any facility is less than its allocation, the excess allowances can be sold. The EUETS has not had a material effect on the Company's results to date. However, should the regulators significantly restrict the number of emissions allowances available, it could have a material effect in the future.

In North America, the U.S. and Canada are engaged in significant legislative and regulatory activity relating to CO_2 emissions, at the federal, state and provincial levels of government. The U.S. Environmental Protection Agency ("EPA") regulates emissions of hazardous air pollutants under the Clean Air Act, which grants the EPA authority to establish limits for certain air pollutants and to require compliance, levy penalties and bring civil judicial action against violators. The structure and scope of the EPA's CO_2 regulations are currently the subject of litigation and are expected to be the subject of federal legislative activity. The EPA regulations, if preserved as proposed, could have a significant long-term impact on the Company's U.S. operations. The EPA also implemented the Cross-State Air Pollution Rule, which set stringent emissions limits in many states starting in 2012. The state of California in the U.S and the province of Quebec in Canada adopted cap-and-trade legislation aimed at reducing greenhouse gas emissions starting in 2013.

In Asia Pacific, the *National Greenhouse and Energy Reporting Act 2007* commenced on July 1, 2008 in Australia. This act established a mandatory reporting system for corporate greenhouse gas emissions and energy production and consumption. In 2011, the Australian government adopted a carbon pricing mechanism that took effect in 2012, which requires certain manufacturers to pay a tax based on their carbon-equivalent emissions. In July 2014 the carbon pricing mechanism was repealed by the Australian

government and has been replaced by the Emissions Reduction Fund which will purchase lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions. An emissions trading scheme has also been in effect in New Zealand since 2008.

In South America, the Brazilian government passed a law in 2009 requiring companies to reduce the level of greenhouse gas emissions by the year 2020. In the other South American countries, national and local governments are considering proposals that would impose regulations to reduce CO_2 emissions.

The Company is unable to predict what environmental legal requirements may be adopted in the future. However, the Company continually monitors its operations in relation to environmental impacts and invests in environmentally friendly and emissions-reducing projects. As such, the Company has made significant expenditures for environmental improvements at certain of its facilities over the last several years; however, these expenditures did not have a material adverse effect on the Company's results of operations or cash flows. The Company is unable to predict the impact of future environmental legal requirements on its results of operations or cash flows.

Employees

The Company's worldwide operations employed approximately 21,100 persons as of December 31, 2014. Approximately 77% of North American employees are hourly workers covered by collective bargaining agreements. The principal collective bargaining agreement, which at December 31, 2014, covered approximately 89% of the Company's union-affiliated employees in North America, will expire on March 31, 2016. Approximately 86% of employees in South America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in South America, Australia and New Zealand have varying terms and expiration dates. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. The Company considers its employee relations to be good and does not anticipate any material work stoppages in the near term.

Available Information

The Company's website is www.o-i.com. The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 can be obtained from this site at no cost. The Company's SEC filings are also available for reading and copying at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company's Corporate Governance Guidelines, Code of Business Conduct and Ethics and the charters of the Audit, Compensation, Nominating/Corporate Governance and Risk Oversight Committees are also available on the Investor Relations section of the Company's website. Copies of these documents are available in print to share owners upon request, addressed to the Corporate Secretary at the address above.

Executive Officers of the Registrant

Name and Age	Position
Albert P. L. Stroucken(67)	Chairman and Chief Executive Officer since 2006. Previously Chief Executive Officer of HB Fuller Company, a manufacturer of adhesives, sealants, coatings, paints and other specialty chemical products 1998-2006; Chairman of HB Fuller Company 1999-2006.
Stephen P. Bramlage, Jr.(44) . . .	Chief Financial Officer and Senior Vice President since 2012; President of O-I Asia Pacific 2011-2012; General Manager of O-I New Zealand 2010-2011; Vice President of Finance 2008-2010; Vice President and Chief Financial Officer of O-I Europe 2008; Vice President and Treasurer 2006-2008.
Andres A. Lopez(52)	President, Glass Containers and Chief Operating Officer since February 1, 2015; Vice President and President of O-I Americas 2014-2015; Vice President and President of O-I South America 2009-2014; Vice President of global manufacturing and engineering 2006-2009.
James W. Baehren(64)	Senior Vice President and General Counsel since 2003; Senior Vice President Strategic Planning 2006-2012; Chief Administrative Officer 2004-2006; Corporate Secretary 1998-2010; Vice President and Director of Finance 2001-2003.
Paul A. Jarrell(52)	Senior Vice President since 2011; Chief Administrative Officer since 2013; Chief Human Resources Officer 2011-2012. Previously Executive Vice President and Chief Human Resources Officer for DSM, a life sciences and materials company based in The Netherlands 2009-2011; Vice President and Director of Human Resources for ITT, a fluid technologies and engineered products company 2006-2009.
Sergio B. O. Galindo(47)	Vice President and President of O-I Asia Pacific since 2012; General Manager of O-I Colombia 2009-2012.

Financial Information about Foreign and Domestic Operations

Information as to net sales, segment operating profit, and assets of the Company's reportable segments is included in Note 2 to the Consolidated Financial Statements.

ITEM 1A. RISK FACTORS

Asbestos-Related Liability—The Company has made, and will continue to make, substantial payments to resolve claims of persons alleging exposure to asbestos-containing products and may need to record additional charges in the future for estimated asbestos-related costs. These substantial payments have affected and may continue to affect the Company's cost of borrowing and the ability to pursue acquisitions.

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos dust. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company exited the pipe and block insulation business in April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory, and in some cases, punitive damages, in various amounts (herein referred to as "asbestos claims").

The Company believes that its ultimate asbestos-related liability (i.e., its indemnity payments or other claim disposition costs plus related legal fees) cannot reasonably be estimated. Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.4 billion through 2014, before insurance recoveries, for its asbestos-related liability. The Company's ability to reasonably estimate its liability has been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

The Company conducted a comprehensive review of its asbestos-related liabilities and costs in connection with finalizing and reporting its results of operations for the year ended December 31, 2014 and concluded that an increase in its accrual for future asbestos-related costs in the amount of $135 million (pretax and after tax) was required.

The significant assumptions underlying the material components of the Company's accrual relate to:

a) the extent to which settlements are limited to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) the extent to which claims are resolved under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the extent of decrease or increase in the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases;

d) the extent to which the Company is able to defend itself successfully at trial or on appeal;

e) the number and timing of additional co-defendant bankruptcies; and

f) the extent to which co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

The ultimate amount of distributions that may be required to fund the Company's asbestos-related payments cannot reasonably be estimated. The Company's reported results of operations for 2014 were materially affected by the $135 million (pretax and after tax) fourth quarter charge and asbestos-related payments continue to be substantial. Any future additional charge may likewise materially affect the Company's results of operations for the period in which it is recorded. Also, the continued use of significant amounts of cash for asbestos-related costs has affected and may continue to affect the

Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

Substantial Leverage—The Company's indebtedness could adversely affect the Company's financial health.

The Company has a significant amount of debt. As of December 31, 2014, the Company had approximately $3.5 billion of total debt outstanding, a decrease from $3.6 billion at December 31, 2013.

The Company's indebtedness could result in the following consequences:

- Increased vulnerability to general adverse economic and industry conditions;
- Increased vulnerability to interest rate increases for the portion of the debt under the secured credit agreement;
- Require the Company to dedicate a substantial portion of cash flow from operations to payments on indebtedness, thereby reducing the availability of cash flow to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes;
- Limit flexibility in planning for, or reacting to, changes in the Company's business and the rigid packaging market;
- Place the Company at a competitive disadvantage relative to its competitors that have less debt; and
- Limit, along with the financial and other restrictive covenants in the documents governing indebtedness, among other things, the Company's ability to borrow additional funds.

Ability to Service Debt—To service its indebtedness, the Company will require a significant amount of cash. The Company's ability to generate cash and refinance certain indebtedness depends on many factors beyond its control.

The Company's ability to make payments on and to refinance its indebtedness and to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes depends on its ability to generate cash in the future. The Company has no assurance that it will generate sufficient cash flow from operations, or that future borrowings will be available under the secured credit agreement, in an amount sufficient to enable the Company to pay its indebtedness, or to fund other liquidity needs. If short term interest rates increase, the Company's debt service cost will increase because some of its debt is subject to short term variable interest rates. At December 31, 2014, the Company's debt subject to variable interest rates represented approximately 21% of total debt.

The Company may need to refinance all or a portion of its indebtedness on or before maturity. If the Company is unable to generate sufficient cash flow and is unable to refinance or extend outstanding borrowings on commercially reasonable terms or at all, it may have to take one or more of the following actions:

- Reduce or delay capital expenditures planned for replacements, improvements and expansions;
- Sell assets;
- Restructure debt; and/or
- Obtain additional debt or equity financing.

The Company can provide no assurance that it could affect or implement any of these alternatives on satisfactory terms, if at all.

Debt Restrictions—The Company may not be able to finance future needs or adapt its business plans to changes because of restrictions placed on it by the secured credit agreement and the indentures and instruments governing other indebtedness.

The secured credit agreement, the indentures governing the senior debentures and notes, and certain of the agreements governing other indebtedness contain affirmative and negative covenants that limit the ability of the Company to take certain actions. For example, these indentures restrict, among other things, the ability of the Company and its restricted subsidiaries to borrow money, pay dividends on, or redeem or repurchase its stock, make investments, create liens, enter into certain transactions with affiliates and sell certain assets or merge with or into other companies. These restrictions could adversely affect the Company's ability to operate its businesses and may limit its ability to take advantage of potential business opportunities as they arise.

Failure to comply with these or other covenants and restrictions contained in the secured credit agreement, the indentures or agreements governing other indebtedness could result in a default under those agreements, and the debt under those agreements, together with accrued interest, could then be declared immediately due and payable. If a default occurs under the secured credit agreement, the Company could no longer request borrowings under the secured credit agreement, and the lenders could cause all of the outstanding debt obligations under such secured credit agreement to become due and payable, which would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default under the secured credit agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

Foreign Currency Exchange Rates—The Company is subject to the effects of fluctuations in foreign currency exchange rates, which could adversely impact the Company's financial results.

The Company's reporting currency is the U.S. dollar. A significant portion of the Company's net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the Euro, Brazilian real, Colombian peso and Australian dollar. In its consolidated financial statements, the Company remeasures transactions denominated in a currency other than the functional currency of the reporting entity (e.g. soda ash purchases) and translates local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

International Operations—The Company is subject to risks associated with operating in foreign countries.

The Company operates manufacturing and other facilities throughout the world. Net sales from non-U.S. operations totaled approximately $4.9 billion, representing approximately 73% of the Company's net sales for the year ended December 31, 2014. As a result of its non-U.S. operations, the Company is subject to risks associated with operating in foreign countries, including:

- Political, social and economic instability;
- War, civil disturbance or acts of terrorism;
- Taking of property by nationalization or expropriation without fair compensation;
- Changes in governmental policies and regulations;
- Devaluations and fluctuations in currency exchange rates;

- Imposition of limitations on conversions of foreign currencies into dollars or remittance of dividends and other payments by foreign subsidiaries;
- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- Hyperinflation in certain foreign countries;
- Impositions or increase of investment and other restrictions or requirements by foreign governments;
- Loss or non-renewal of treaties or other agreements with foreign tax authorities;
- Changes in tax laws, or the interpretation thereof, affecting foreign tax credits or tax deductions relating to our non-U.S. earnings or operations; and
- Complying with the U.S. Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from engaging in bribery or other prohibited payments to foreign officials for the purposes of obtaining or retaining business or gaining an unfair business advantage and requires companies to maintain accurate books and records and internal controls.

The risks associated with operating in foreign countries may have a material adverse effect on operations.

Competition—The Company faces intense competition from other glass container producers, as well as from makers of alternative forms of packaging. Competitive pressures could adversely affect the Company's financial health.

The Company is subject to significant competition from other glass container producers, as well as from makers of alternative forms of packaging, such as aluminum cans and plastic containers. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches and aseptic cartons, in serving the packaging needs of certain end-use markets, including juice customers. The Company competes with each rigid packaging competitor on the basis of price, quality, service and the marketing and functional attributes of the container. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing suppliers and/or using an alternative form of packaging. The adverse effects of consumer purchasing decisions may be more significant in periods of economic downturn and may lead to longer term reductions in consumer spending on glass packaged products.

Pressures from competitors and producers of alternative forms of packaging have resulted in excess capacity in certain countries in the past and have led to capacity adjustments and significant pricing pressures in the rigid packaging market.

Lower Demand Levels—Changes in consumer preferences may have a material adverse effect on the Company's financial results.

Changes in consumer preferences for the food and beverages they consume can reduce demand for the Company's products. Because many of the Company's products are used to package consumer goods, the Company's sales and profitability could be negatively impacted by changes in consumer preferences for those products. Examples of changes in consumer preferences include, but are not limited to, lower sales of major domestic beer brands and shifts from beer to wine or spirits that results in the use of fewer glass containers. In periods of lower demand, the Company's sales and production levels may decrease causing a material adverse effect on the Company's profitability.

High Energy Costs—Higher energy costs worldwide and interrupted power supplies may have a material adverse effect on operations.

Electrical power, natural gas, and fuel oil are vital to the Company's operations as it relies on a continuous energy supply to conduct its business. Depending on the location and mix of energy sources, energy accounts for 10% to 25% of total production costs. Substantial increases and volatility in energy costs could cause the Company to experience a significant increase in operating costs, which may have a material adverse effect on operations.

Global Economic Environment—The global credit, financial and economic environment could have a material adverse effect on operations and financial condition.

The global credit, financial and economic environment could have a material adverse effect on operations, including the following:

- Downturns in the business or financial condition of any of the Company's customers or suppliers could result in a loss of revenues or a disruption in the supply of raw materials;
- Tightening of credit in financial markets could reduce the Company's ability, as well as the ability of the Company's customers and suppliers, to obtain future financing;
- Volatile market performance could affect the fair value of the Company's pension assets and liabilities, potentially requiring the Company to make significant additional contributions to its pension plans to maintain prescribed funding levels;
- The deterioration of any of the lending parties under the Company's revolving credit facility or the creditworthiness of the counterparties to the Company's derivative transactions could result in such parties' failure to satisfy their obligations under their arrangements with the Company; and
- A significant weakening of the Company's financial position or results of operations could result in noncompliance with the covenants under the Company's indebtedness.

Business Integration Risks—The Company may not be able to effectively integrate additional businesses it acquires in the future.

The Company may consider strategic transactions, including acquisitions that will complement, strengthen and enhance growth in its worldwide glass operations. The Company evaluates opportunities on a preliminary basis from time to time, but these transactions may not advance beyond the preliminary stages or be completed. Such acquisitions are subject to various risks and uncertainties, including:

- The inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which are located in diverse geographic regions) and achieve expected synergies;
- The potential disruption of existing business and diversion of management's attention from day-to-day operations;
- The inability to maintain uniform standards, controls, procedures and policies;
- The need or obligation to divest portions of the acquired companies;
- The potential impairment of relationships with customers;
- The potential failure to identify material problems and liabilities during due diligence review of acquisition targets;

- The potential failure to obtain sufficient indemnification rights to fully offset possible liabilities associated with acquired businesses; and
- The challenges associated with operating in new geographic regions.

In addition, the Company cannot make assurances that the integration and consolidation of newly acquired businesses will achieve any anticipated cost savings and operating synergies.

Customer Consolidation—The continuing consolidation of the Company's customer base may intensify pricing pressures and have a material adverse effect on operations.

Many of the Company's largest customers have acquired companies with similar or complementary product lines. This consolidation has increased the concentration of the Company's business with its largest customers. In many cases, such consolidation has been accompanied by pressure from customers for lower prices, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Increased pricing pressures from the Company's customers may have a material adverse effect on operations.

Operational Disruptions—Profitability could be affected by unanticipated operational disruptions.

The Company's glass container manufacturing process is asset intensive and includes the use of large furnaces and machines. The Company periodically experiences unanticipated disruptions to its assets and these events can have an adverse effect on its business operations and profitability. The impacts of these operational disruptions include, but are not limited to, higher maintenance, production changeover and shipping costs, higher capital spending, as well as lower absorption of fixed costs during periods of extended downtime. The Company maintains insurance policies in amounts and with coverage and deductibles that are reasonable and in line with industry standards; however, this insurance coverage may not be adequate to protect the Company from all liabilities and expenses that may arise.

Seasonality—Profitability could be affected by varied seasonal demands.

Due principally to the seasonal nature of the consumption of beer and other beverages, for which demand is stronger during the summer months, sales of the Company's products have varied and are expected to vary by quarter. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in South America are typically greater in the third and fourth quarters of the year. Unseasonably cool weather during peak demand periods can reduce demand for certain beverages packaged in the Company's containers.

Raw Materials—Profitability could be affected by the availability of raw materials.

The raw materials that the Company uses have historically been available in adequate supply from multiple sources. For certain raw materials, however, there may be temporary shortages due to weather or other factors, including disruptions in supply caused by raw material transportation or production delays. These shortages, as well as material volatility in the cost of any of the principal raw materials that the Company uses, may have a material adverse effect on operations.

Environmental Risks—The Company is subject to various environmental legal requirements and may be subject to new legal requirements in the future. These requirements may have a material adverse effect on operations.

The Company's operations and properties are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing

investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. Such legal requirements frequently change and vary among jurisdictions. The Company's operations and properties must comply with these legal requirements. These requirements may have a material adverse effect on operations.

The Company has incurred, and expects to incur, costs for its operations to comply with environmental legal requirements, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations), and criminal sanctions for violations. These legal requirements may apply to conditions at properties that the Company presently or formerly owned or operated, as well as at other properties for which the Company may be responsible, including those at which wastes attributable to the Company were disposed. A significant order or judgment against the Company, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

A number of governmental authorities have enacted, or are considering enacting, legal requirements that would mandate certain rates of recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials. In addition, some companies with packaging needs have responded to such developments and/or perceived environmental concerns of consumers by using containers made in whole or in part of recycled materials. Such developments may reduce the demand for some of the Company's products and/or increase the Company's costs, which may have a material adverse effect on operations.

Taxes—Potential tax law changes could adversely affect net income and cash flow.

The Company is subject to income tax in the numerous jurisdictions in which it operates. Increases in income tax rates or other tax law changes, as well as ongoing audits by domestic and international authorities, could reduce the Company's net income and cash flow from affected jurisdictions. In particular, potential tax law changes in the U.S. regarding the treatment of the Company's unrepatriated non-U.S. earnings could have a material adverse effect on net income and cash flow. In addition, the Company's products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which it operates. Increases in these indirect taxes could affect the affordability of the Company's products and, therefore, reduce demand.

Labor Relations—Some of the Company's employees are unionized or represented by workers' councils.

The Company is party to a number of collective bargaining agreements with labor unions which at December 31, 2014, covered approximately 77% of the Company's employees in North America. The principal collective bargaining agreement, which at December 31, 2014 covered approximately 89% of the Company's union-affiliated employees in North America, will expire on March 31, 2016. Approximately 86% of employees in South America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in South America, Australia and New Zealand have varying terms and expiration dates. Upon the expiration of any collective bargaining agreement, if the Company is unable to negotiate acceptable contracts with labor unions, it could result in strikes by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of the Company's employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure the Company's workforce. Although the Company believes that it has a good working relationship with its employees, if the Company's employees were to engage in a strike or other work

stoppage, the Company could experience a significant disruption of operations and/or higher ongoing labor costs, which may have a material adverse effect on operations.

Key Management and Personnel Retention—Failure to retain key management and personnel could have a material adverse effect on operations.

The Company believes that its future success depends, in part, on its experienced management team and certain key personnel. The loss of certain key management and personnel could limit the Company's ability to implement its business plans and meet its objectives.

Joint Ventures—Failure by joint venture partners to observe their obligations could have a material adverse effect on operations.

A portion of the Company's operations is conducted through joint ventures, including joint ventures in the Europe, North America and Asia Pacific segments. If the Company's joint venture partners do not observe their obligations or are unable to commit additional capital to the joint ventures, it is possible that the affected joint venture would not be able to operate in accordance with its business plans, which could have a material adverse effect on the Company's financial condition and results of operations.

Cybersecurity and Information Technology—Security threats and the failure or disruption of the integrity of the Company's information technology, or those of third parties with which it does business, could have a material adverse effect on its business and the results of operations.

The Company relies on information technology to operate its plants, to communicate with its employees, customers and suppliers, to store sensitive business information and intellectual property, and to report financial and operating results. As with all large systems, the Company's information technology systems could fail on their own accord or may be vulnerable to a variety of interruptions due to events, including, but not limited to, natural disasters, terrorist attacks, telecommunications failures, computer viruses, hackers or other security issues. While the Company has disaster recovery programs in place, failure or disruption of the Company's information technology systems could result in transaction errors, loss of customers, business disruptions, or loss of or damage to intellectual property, which could have a material adverse effect on operations.

As cyberattacks on various organizations have increased, the Company's information technology systems may be subject to increased security issues. While the Company has measures in place to prevent and detect global security threats, the Company may be unable to prevent certain security breaches. This may result in the loss of customers and business opportunities, regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensatory costs, and additional compliance costs. Failure or disruption of these systems, or the back-up systems, for any reason could disrupt the Company's operations and negatively impact the Company's cash flows or financial condition.

Accounting Estimates—The Company's financial results are based upon estimates and assumptions that may differ from actual results.

In preparing the Company's consolidated financial statements in accordance with U.S. generally accepted accounting principles, several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain information used in the preparation of the Company's financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that accounting for long-lived assets, pension benefit plans, contingencies and

litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements. Actual results for all estimates could differ materially from the estimates and assumptions that the Company uses, which could have a material adverse effect on the Company's financial condition and results of operations.

Accounting Standards—The adoption of new accounting standards or interpretations could adversely impact the Company's financial results.

New accounting standards or pronouncements could adversely affect the Company's operating results or cause unanticipated fluctuations in its results in future periods. The accounting rules and regulations that the Company must comply with are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. While the Company believes that its financial statements have been prepared in accordance with U.S. generally accepted accounting principles, the Company cannot predict the impact of future changes to accounting principles or its accounting policies on its financial statements going forward.

Goodwill—A significant write down of goodwill would have a material adverse effect on the Company's reported results of operations and net worth.

Goodwill at December 31, 2014 totaled $1.9 billion. The Company evaluates goodwill annually (or more frequently if impairment indicators arise) for impairment using the required business valuation methods. These methods include the use of a weighted average cost of capital to calculate the present value of the expected future cash flows of the Company's reporting units. Future changes in the cost of capital, expected cash flows, or other factors may cause the Company's goodwill to be impaired, resulting in a non-cash charge against results of operations to write down goodwill for the amount of the impairment. If a significant write down is required, the charge would have a material adverse effect on the Company's reported results of operations and net worth.

Pension Funding—An increase in the underfunded status of the Company's pension plans could adversely impact the Company's operations, financial condition and liquidity.

The Company contributed $28 million, $96 million and $219 million to its defined benefit pension plans in 2014, 2013 and 2012, respectively. The amount the Company is required to contribute to these plans is determined by the laws and regulations governing each plan, and is generally related to the funded status of the plans. A deterioration in the value of the plans' investments or a decrease in the discount rate used to calculate plan liabilities generally would increase the underfunded status of the plans. An increase in the underfunded status of the plans could result in an increase in the Company's obligation to make contributions to the plans, thereby reducing the cash available for working capital and other corporate uses, and may have an adverse impact on the Company's operations, financial condition and liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The principal manufacturing facilities and other material important physical properties of the Company at December 31, 2014 are listed below. All properties are glass container plants and are owned in fee, except where otherwise noted.

North American Operations

United States

- Atlanta, GA
- Auburn, NY
- Brockway, PA
- Crenshaw, PA
- Danville, VA
- Lapel, IN
- Los Angeles, CA
- Muskogee, OK
- Oakland, CA
- Portland, OR
- Streator, IL
- Toano, VA
- Tracy, CA
- Waco, TX
- Windsor, CO
- Winston-Salem, NC
- Zanesville, OH

Canada

- Brampton, Ontario
- Montreal, Quebec

Asia Pacific Operations

Australia

- Adelaide
- Brisbane
- Melbourne
- Sydney

China

- Tianjin
- Zhaoqing

Indonesia

- Jakarta

New Zealand

- Auckland

European Operations

Czech Republic

- Dubi
- Nove Sedlo

Estonia

- Jarvakandi

France

- Beziers
- Gironcourt
- Labegude
- Puy-Guillaume
- Reims
- Vayres
- Veauche
- Vergeze
- Wingles

Germany

- Bernsdorf
- Holzminden
- Rinteln

Hungary

- Oroshaza

Italy
- Asti
- Aprilia
- Bari
- Marsala
- Mezzocorona
- Origgio
- Ottaviano
- San Gemini
- San Polo
- Villotta

The Netherlands
- Leerdam
- Maastricht
- Schiedam

Poland
- Jaroslaw
- Poznan

Spain
- Barcelona
- Sevilla

United Kingdom
- Alloa
- Harlow

South American Operations

Argentina
- Rosario

Brazil
- Fortaleza
- Recife
- Rio de Janeiro (glass container and tableware)
- Sao Paulo
- Vitoria de Santo Antao (glass container and tableware)

Colombia
- Buga (tableware)
- Envigado
- Soacha
- Zipaquira

Ecuador
- Guayaquil

Peru
- Callao
- Lurin(1)

Other Operations

Engineering Support Centers
- Brockway, Pennsylvania
- Cali, Colombia
- Hawthorn, Australia
- Jaroslaw, Poland
- Lurin, Peru
- Perrysburg, Ohio

Shared Service Centers
- Perrysburg, Ohio
- Medellin, Colombia
- Poznan, Poland(1)

Corporate Facilities

- Hawthorn, Australia(1)
- Perrysburg, Ohio(1)
- Miami, Florida(1)
- Vufflens-la-Ville, Switzerland(1)

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(1) This facility is leased in whole or in part.

The Company believes that its facilities are well maintained and currently adequate for its planned production requirements over the next three to five years.

ITEM 3. LEGAL PROCEEDINGS

For further information on legal proceedings, see Note 13 to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHARE OWNER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The price range for the Company's common stock on the New York Stock Exchange, as reported by the Financial Industry Regulatory Authority, Inc., was as follows:

	2014		2013	
	High	Low	High	Low
First Quarter	$35.53	$30.88	$27.66	$21.82
Second Quarter	34.73	31.17	28.89	24.26
Third Quarter	35.16	26.05	31.27	27.74
Fourth Quarter	27.29	23.53	35.78	28.82

The number of share owners of record on December 31, 2014 was 1,163. Approximately 99% of the outstanding shares were registered in the name of Depository Trust Company, or CEDE, which held such shares on behalf of a number of brokerage firms, banks, and other financial institutions. The shares attributed to these financial institutions, in turn, represented the interests of more than 29,000 unidentified beneficial owners. No dividends have been declared or paid since the Company's initial public offering in December 1991 and the Company does not anticipate paying any dividends in the near future. For restrictions on payment of dividends on the Company's common stock, see Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Resources and Liquidity—Current and Long-Term Debt and Note 12 to the Consolidated Financial Statements.

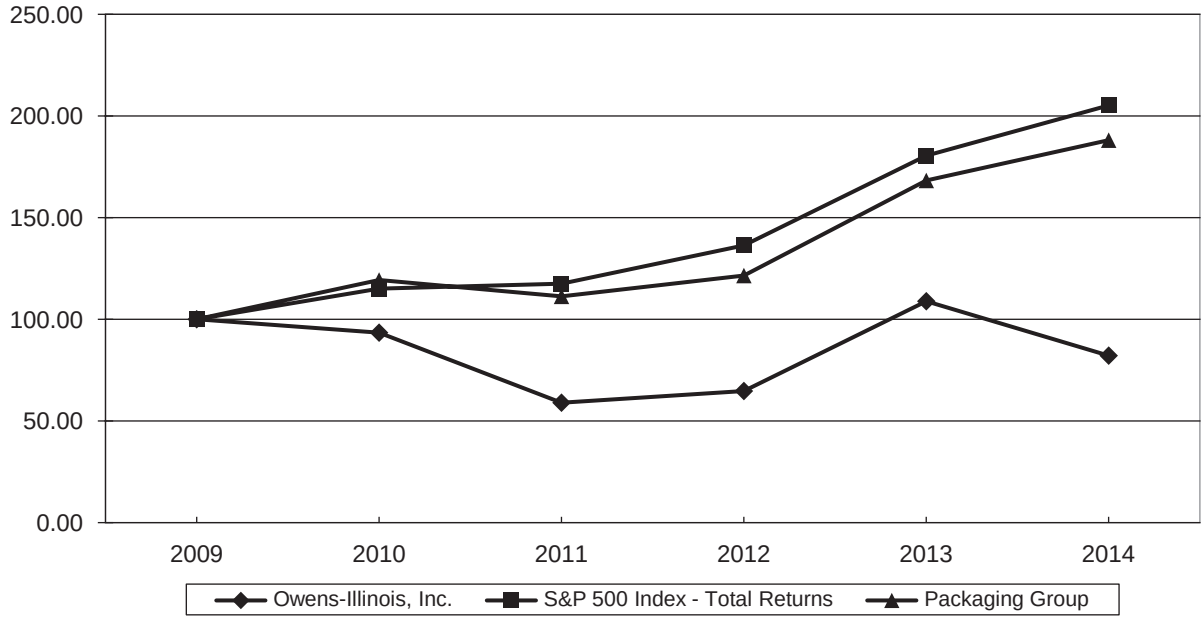
Information with respect to securities authorized for issuance under equity compensation plans is included herein under Item 12.

The Company purchased 779,506 shares of its common stock during the fourth quarter of 2014 (1.1 million shares for the year) pursuant to authorization by its Board of Directors in October 2014 to purchase up to $500 million of the Company's common stock until December 31, 2017. The following table provides information about the Company's purchases of its common stock during the fourth quarter of 2014:

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased (in thousands)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (in thousands)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan (in millions)
October 1 - October 31, 2014				$500
November 1 - November 30, 2014	700	$25.64	700	$482
December 1 - December 31, 2014	80	$25.72	780	$480

PERFORMANCE GRAPH
COMPARISON OF CUMULATIVE TOTAL RETURN
AMONG OWENS-ILLINOIS, INC., S&P 500, AND PACKAGING GROUP



	Years Ending December 31,					
	2009	2010	2011	2012	2013	2014
Owens-Illinois, Inc.	$100.00	$ 93.40	$ 58.96	$ 64.71	$108.85	$ 82.11
S&P 500	100.00	115.06	117.49	136.30	180.44	205.14
Packaging Group	100.00	119.30	111.26	121.49	168.24	188.06

The above graph compares the performance of the Company's Common Stock with that of a broad market index (the S&P 500 Composite Index) and a packaging group consisting of companies with lines of business or product end uses comparable to those of the Company for which market quotations are available.

The packaging group consists of: AptarGroup, Inc., Ball Corp., Bemis Company, Inc., Crown Holdings, Inc., Owens-Illinois, Inc., Sealed Air Corp., Silgan Holdings Inc., and Sonoco Products Co.

The comparison of total return on investment for each period is based on the investment of $100 on December 31, 2009 and the change in market value of the stock, including additional shares assumed purchased through reinvestment of dividends, if any.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below relates to each of the five years in the period ended December 31, 2014. The financial data for each of the five years in the period ended December 31, 2014 was derived from the audited consolidated financial statements of the Company.

	Years ended December 31,				
	2014	2013	2012	2011	2010
	(Dollars in millions)				
Consolidated operating results(a):					
Net sales	$ 6,784	$ 6,967	$ 7,000	$ 7,358	$ 6,633
Cost of goods sold(b)	(5,531)	(5,636)	(5,626)	(5,969)	(5,281)
Gross profit	1,253	1,331	1,374	1,389	1,352
Selling and administrative, research, development and engineering(b)	(586)	(568)	(617)	(627)	(554)
Other expense, net(b)	(219)	(199)	(190)	(855)	(136)
Earnings (loss) before interest expense and items below	448	564	567	(93)	662
Interest expense, net(b)	(230)	(229)	(239)	(303)	(236)
Earnings (loss) from continuing operations before income taxes	218	335	328	(396)	426
Provision for income taxes(b)	(92)	(120)	(108)	(85)	(129)
Earnings (loss) from continuing operations	126	215	220	(481)	297
Gain (loss) from discontinued operations	(23)	(18)	(2)	1	(300)
Net earnings (loss)	103	197	218	(480)	(3)
Net earnings attributable to noncontrolling interests	(28)	(13)	(34)	(20)	(42)
Net earnings (loss) attributable to the Company	$ 75	$ 184	$ 184	$ (500)	$ (45)

	Years ended December 31,				
	2014	2013	2012	2011	2010
Basic earnings (loss) per share of common stock:					
Earnings (loss) from continuing operations	$ 0.60	$ 1.22	$ 1.13	$ (3.06)	$ 1.58
Earnings from discontinued operations					0.14
Gain (loss) on disposal of discontinued operations	(0.14)	(0.11)	(0.01)	0.01	(2.00)
Net earnings (loss)	$ 0.46	$ 1.11	$ 1.12	$ (3.05)	$ (0.28)
Weighted average shares outstanding (in thousands)	164,720	164,425	164,474	163,691	164,271
Diluted earnings (loss) per share of common stock:					
Earnings (loss) from continuing operations	$ 0.59	$ 1.22	$ 1.12	$ (3.06)	$ 1.56
Earnings from discontinued operations					0.14
Gain (loss) on disposal of discontinued operations	(0.14)	(0.11)	(0.01)	0.01	(1.97)
Net earnings (loss)	$ 0.45	$ 1.11	$ 1.11	$ (3.05)	$ (0.27)
Diluted average shares (in thousands)	166,047	165,828	165,768	163,691	167,078

For the year ended December 31, 2011, diluted earnings per share of common stock was equal to basic earnings per share of common stock due to the loss from continuing operations.

	Years ended December 31,				
	2014	2013	2012	2011	2010
	(Dollars in millions)				
Other data:					
The following are included in earnings from continuing operations:					
Depreciation	$ 335	$ 350	$ 378	$ 405	$ 369
Amortization of intangibles	83	47	34	17	22
Amortization of deferred finance fees (included in interest expense)	30	32	33	32	19
Balance sheet data (at end of period):					
Working capital (current assets less current liabilities)	$ 43	$ 296	$ 486	$ 498	$ 698
Total assets	7,858	8,419	8,598	8,975	9,793
Total debt	3,460	3,567	3,773	4,033	4,278
Share owners' equity	1,275	1,603	1,055	1,041	2,065
Free cash flow(c)	$ 329	$ 339	$ 290	$ 220	$ 100

(a) Amounts for 2010 - 2011 have been adjusted to reflect the retrospective application of a change in the method of valuing U.S. inventories to average cost from last-in, first-out.

Amounts related to the Company's Venezuelan operations have been reclassified to discontinued operations for 2010 as a result of the expropriation of those operations in 2010.

(b) Note that the items below relate to items management considers not representative of ongoing operations.

	Years ended December 31,				
	2014	2013	2012	2011	2010
	(dollars in millions)				
Cost of goods sold					
Restructuring, asset impairment and related charges	$ 8	$ —	$ —	$ —	$ —
Pension settlement charges	50				
Acquisition-related fair value inventory adjustments					12
Selling and administrative, research, development and engineering					
Pension settlement charges	15				
Other expense, net					
Accrual for estimated future asbestos-related costs	135	145	155	165	170
Restructuring, asset impairment and other charges	78	119	168	112	13
Non-income tax charge	69				
Equity earnings related charges	5				
Gain related to cash received from the Chinese government as compensation for land in China that the Company was required to return to the government			(61)		
Write-down of goodwill in the Asia Pacific segment				641	
Acquisition-related restructuring, transaction and financing costs					20
Interest expense, net					
Note repurchase premiums and additional interest charges for the write-off of unamortized deferred financing fees related to the early extinguishment of debt	20	11		25	9
Reduction of interest expense to recognize the unamortized proceeds from terminated interest rate swaps					(9)
Provision for income taxes					
Tax benefits recorded for certain tax adjustments	(8)		(14)	(15)	
Net tax benefit related to the reversal of deferred tax valuation allowances and non-cash tax benefit transferred from other income categories					(32)
Net tax (benefit) expense for income tax on items above	(34)	(14)	4	(22)	(7)
Net earnings attributable to noncontrolling interest					
Net impact of noncontrolling interests on items above		(13)		(1)	
	$338	$248	$252	$905	$176

(c) The Company defines free cash flow as cash provided by continuing operating activities less additions to property, plant and equipment from continuing operations. Free cash flow does not conform to U.S. GAAP and should not be construed as an alternative to the cash flow measures reported in accordance with U.S. GAAP. The Company uses free cash flow for internal reporting, forecasting and budgeting and believes this information allows the board of directors, management,

investors and analysts to better understand the Company's financial performance. Free cash flow is calculated as follows (dollars in millions):

Years ended December 31,	2014	2013	2012	2011	2010
Cash provided by continuing operating activities	$ 698	$ 700	$ 580	$ 505	$ 600
Additions to property, plant and equipment—continuing	(369)	(361)	(290)	(285)	(500)
Free cash flow	$ 329	$ 339	$ 290	$ 220	$ 100

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The segment data presented below is prepared in accordance with general accounting principles for segment reporting. The line titled "reportable segment totals", however, is a non-GAAP measure when presented outside of the financial statement footnotes. Management has included reportable segment totals below to facilitate the discussion and analysis of financial condition and results of operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources.

Financial information regarding the Company's reportable segments is as follows (dollars in millions):

	2014	2013	2012
Net sales:			
Europe	$2,794	$2,787	$2,717
North America	2,003	2,002	1,966
South America	1,159	1,186	1,252
Asia Pacific	793	966	1,028
Reportable segment totals	6,749	6,941	6,963
Other	35	26	37
Net sales	$6,784	$6,967	$7,000

	2014	2013	2012
Segment operating profit:			
Europe	$ 353	$ 305	$ 307
North America	240	307	288
South America	227	204	227
Asia Pacific	88	131	113
Reportable segment totals	908	947	935
Items excluded from segment operating profit:			
Retained corporate costs and other	(100)	(119)	(106)
Restructuring, asset impairment and other charges	(91)	(119)	(168)
Charge for asbestos-related costs	(135)	(145)	(155)
Pension settlement charges	(65)		
Non-income tax charge	(69)		
Gain on China land compensation			61
Net interest expense	(230)	(229)	(239)
Earnings from continuing operations before income taxes	218	335	328
Provision for income taxes	(92)	(120)	(108)
Earnings from continuing operations	126	215	220
Loss from discontinued operations	(23)	(18)	(2)
Net earnings	103	197	218
Net earnings attributable to noncontrolling interests	(28)	(13)	(34)
Net earnings attributable to the Company	$ 75	$ 184	$ 184
Net earnings from continuing operations attributable to the Company	$ 98	$ 202	$ 186

Note: all amounts excluded from reportable segment totals are discussed in the following applicable sections.

Executive Overview—Comparison of 2014 with 2013

2014 Highlights

- Segment operating profit decreased due to higher operating costs, partially offset by higher selling prices and the benefits from the European asset optimization program
- Entered into a joint venture in Mexico and a long-term supply agreement with Constellation Brands, Inc. to supply glass container for their beer business
- Issued $800 million of senior notes due 2022 and 2025 and repurchased $611 million of exchangeable senior notes
- Strong cash generation improves leverage ratio and continues share repurchases

Net sales decreased by $183 million compared to the prior year due to a 2% decline in glass container shipments and due to the unfavorable effect of changes in foreign currency exchange rates. Higher selling prices had a positive impact on net sales.

Segment operating profit for reportable segments decreased by $39 million compared to the prior year. The decrease was mainly attributable to higher operating costs, driven by cost inflation in most of the regions, higher supply chain and production costs in North America and lower production volumes in Asia Pacific and North America. Higher selling prices and the benefits from the European asset optimization partially offset these costs.

Net interest expense in 2014 increased $1 million compared to 2013. The increase was due to higher note repurchase premiums and the write-off of finance fees related to debt that was repaid during 2014 prior to its maturity than experienced in 2013. Exclusive of these costs, net interest declined $5 million in 2014 compared to 2013 due to debt reduction initiatives and lower interest rates.

Earnings from continuing operations attributable to the Company in 2014 were $98 million, or $0.59 per share (diluted), compared with $202 million, or $1.22 per share (diluted), for 2013. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $338 million, or $2.04 per share, in 2014 and $248 million, or $1.50 per share, in 2013.

Results of Operations—Comparison of 2014 with 2013

Net Sales

The Company's net sales in 2014 were $6,784 million compared with $6,967 million in 2013, a decrease of $183 million. Glass container shipments, in tonnes, were down 2% in 2014 compared to 2013, driven by lower sales in Asia Pacific. Net sales were also lower due to the unfavorable effects of foreign currency exchange rate changes, primarily due to a weaker Brazilian real, Colombian peso and Australian dollar in relation to the U.S. dollar. Net sales in 2014 benefited from higher selling prices.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales—2013		$6,941
Price	$ 73	
Sales volume	(112)	
Effects of changing foreign currency rates	(153)	
Total effect on net sales		(192)
Net sales—2014		$6,749

Europe: Net sales in Europe in 2014 were $2,794 million compared with $2,787 in 2013, an increase of $7 million, or less than 1%. Glass container shipments in 2014 increased 2% compared to the prior year, particularly in the beer and wine categories. The higher sales volume, which increased net sales by $49 million, was mainly due to unseasonably warm weather conditions in the first quarter and the carryover benefits of the Company's wine share recovery efforts from the prior year. Net sales in Europe decreased by $3 million due to the unfavorable effects of foreign currency exchange rate changes, as the Euro weakened in relation to the U.S. dollar. Lower selling prices also reduced sales by $39 million in 2014.

North America: Net sales in North America in 2014 were $2,003 million compared with $2,002 million in 2013, an increase of $1 million. Higher selling prices of $45 million increased net sales in 2014 due, in part, to the Company's contractual pass through provisions, as well as from passing through the freight costs for a large customer. Net sales declined by $30 million in 2014 compared to the prior year due to a 1% decrease in glass container shipments and a less favorable sales mix. The primary driver for the decline in the region's volumes in 2014 was due to lower sales to major domestic beer brands. Unfavorable foreign currency exchange rates decreased net sales by $14 million, as the Canadian dollar weakened in relation to the U.S. dollar.

South America: Net sales in South America in 2014 were $1,159 million compared with $1,186 million in 2013, a decrease of $27 million, or 2%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $96 million in 2014 compared to 2013, principally due to a decline in the Brazilian real and the Colombian peso in relation to the U.S. dollar. Net sales increased by $14 million in 2014 driven by a 4% increase in glass container shipments, partially offset by a change

in sales mix. Volume growth was particularly strong in the beer category in 2014 and was evident in most of the countries where the Company operates in the region. Improved pricing in the current year benefited net sales by $55 million.

Asia Pacific: Net sales in Asia Pacific in 2014 were $793 million compared with $966 million for 2013, a decrease of $173 million, or 18%. The decrease in net sales was primarily due to lower sales volume, which resulted in $145 million of lower sales in 2014. Glass container shipments were down 20% compared to the prior year, largely due to the planned plant closures in China, as well as lower shipments in Australia due to weaker demand in the domestic beer and export wine markets. To balance supply with demand, the Company permanently closed a furnace in Australia in the third quarter of 2014. The unfavorable effects of foreign currency exchange rate changes decreased net sales $40 million in 2014 compared to 2013, primarily due to the weakening of the Australian dollar in relation to the U.S. dollar. Higher prices increased net sales by $12 million in the current year.

Segment Operating Profit

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2014 was $908 million compared to $947 million in 2013, a decrease of $39 million, or 4%. The decline in segment operating profit was primarily due to higher operating costs, partially offset by the benefits from the European asset optimization program and higher selling prices. Operating costs increased in the current year due to cost inflation, higher supply chain and production costs in North America and lower production volumes in Asia Pacific.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit—2013		$947
Price	$ 73	
Sales volume	(7)	
Operating costs	(99)	
Effects of changing foreign currency rates	(6)	
Total net effect on segment operating profit		(39)
Segment operating profit—2014		$908

Europe: Segment operating profit in Europe in 2014 was $353 million compared with $305 million in 2013, an increase of $48 million, or 16%. Lower operating expenses, driven by cost deflation and benefits from the region's asset optimization program, had a $70 million positive impact on segment operating profit in 2014. The increase in sales volume discussed above increased segment operating profit by $14 million. Partially offsetting these benefits were lower selling prices, which were down $39 million in the current year due, in part, to competitive pressures in the region. Foreign currency exchange rates increased segment profit by $3 million in 2014.

In 2014, the Company continued implementing the European asset optimization program to increase the efficiency and capability of its European operations. Through this program, the Company expects to improve the long term profitability of this region through investments and by addressing higher cost facilities to better align its European manufacturing footprint with market and customer needs.

North America: Segment operating profit in North America in 2014 was $240 million compared with $307 million in 2013, a decrease of $67 million, or 22%. The decrease in segment operating profit was primarily due to higher operating costs of $102 million in the current year, which were driven by higher energy, raw material and supply chain costs, as well as lower production and productivity levels. The decrease in sales volume mentioned above reduced segment profit by $9 million. Higher selling prices partially offset these impacts and increased segment operating profit by $45 million in the current year. The unfavorable effects of foreign exchange rates decreased segment profit by $1 million.

South America: Segment operating profit in South America in 2014 was $227 million compared with $204 million in 2013, an increase of $23 million, or 11%. Higher selling prices increased segment operating profit in 2014 by $55 million. The increase in sales volume discussed above increased segment operating profit by $13 million. Several non-strategic asset sales also benefited segment operating profit by $6 million in the current year. Operating costs were $45 million higher in 2014, primarily driven by cost inflation, and partially offset by higher productivity in the region. The unfavorable effects of foreign currency exchange rate changes decreased segment operating profit by $6 million in the current year.

Asia Pacific: Segment operating profit in Asia Pacific in 2014 was $88 million compared with $131 million in 2013, a decrease of $43 million, or 33%. Operating costs increased by $28 million in the current year and were driven by lower production volumes and cost inflation. The decline in sales volume discussed above decreased segment operating profit by $25 million. The unfavorable effects of foreign currency exchange rates decreased segment profit by $2 million. Higher selling prices increased segment profit by $12 million in the current year.

Interest Expense, net

Net interest expense in 2014 was $230 million compared with $229 million in 2013. Interest expense for 2014 included $20 million for note repurchase premiums and the write-off of finance fees related to the tender offer to purchase all of its outstanding 3.00% Exchangeable Senior Notes due 2015 (the "2015 Exchangeable Notes"). Net interest expense for 2013 included $14 million for note repurchase premiums and the write-off of finance fees related to the discharge of the €300 million Senior Notes due 2017 (the "2017 Senior Notes") and related to the repurchase of a portion of the 2015 Exchangeable Notes. Exclusive of these items, net interest expense decreased $5 million in the current year primarily due to debt reduction initiatives and lower interest rates

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2014 was 42.2%, compared with 35.8% for 2013. The effective tax rate for 2014 was impacted by the non-income tax charge, which was not deductible for income tax purposes. Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2014 was 22.4%, compared with 21.9% for 2013.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2014 was $28 million compared to $13 million for 2013. The increase in 2014 was primarily due to the nonoccurrence of the impacts from restructuring and asset impairment charges in 2013 at the Company's less than wholly-owned facilities in South America and Asia Pacific, as well as higher earnings in the Company's less than wholly-owned subsidiaries in South America in 2014.

Earnings from Continuing Operations Attributable to the Company

For 2014, the Company recorded earnings from continuing operations attributable to the Company of $98 million compared with $202 million for 2013. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2014 and 2013 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2014**	**2013**
Restructuring, asset impairment and other charges	$ (67)	$ (92)
Note repurchase premiums and write-off of finance fees	(20)	(11)
Pension settlement charges	(55)	
Charge for asbestos-related costs	(135)	(145)
Non-income tax charge	(69)	
Tax benefit for certain tax adjustments	8	
Total	$(338)	$(248)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2014 were reduced due to foreign currency effects compared to 2013.

This trend has continued into 2015 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Executive Overview—Comparison of 2013 with 2012

2013 Highlights

- Net sales lower due to unfavorable effects of foreign currency exchange rate changes and sales volume, partially offset by higher selling prices.
- Segment operating profit higher due to improved selling prices and global cost control initiatives, partially offset by cost inflation and the unfavorable effects of foreign currency exchange rate changes.
- Strong cash generation used to prepay debt and continue share repurchase program.

Net sales were $33 million lower than the prior year due primarily to the unfavorable effects of changes in foreign currency exchange rates and sales volume. The unfavorable effects of foreign currency exchange rate changes were driven by a weaker Brazilian real and Australian dollar, partially offset by a stronger Euro. Higher selling prices had a positive impact on net sales.

Segment operating profit for reportable segments was $12 million higher than the prior year. The increase was attributable to higher selling prices and lower operating expenses due to global cost control initiatives. Cost inflation and the effects of foreign currency exchange rate changes unfavorably impacted segment operating profit in 2013.

Interest expense in 2013 decreased $9 million over 2012. The decrease was due to debt reduction initiatives and lower interest rates, partially offset by note repurchase premiums and the write-off of finance fees related to debt that was repaid during 2013 prior to its maturity.

The Company recorded earnings from continuing operations attributable to the Company in 2013 of $202 million, or $1.22 per share (diluted), compared with $186 million, or $1.12 per share, for 2012. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $248 million, or $1.50 per share, in 2013 and $252 million, or $1.52 per share, in 2012.

Results of Operations—Comparison of 2013 with 2012

Net Sales

The Company's net sales in 2013 were $6,967 million compared with $7,000 million in 2012, a decrease of $33 million. Net sales were lower due to the unfavorable effects of foreign currency exchange rate changes, primarily due to a weaker Brazilian real and Australian dollar in relation to the U.S. dollar, partially offset by a stronger Euro. Glass container shipments, in tonnes, were down slightly in 2013 compared to 2012, with all regions reporting lower or flat sales volumes. Net sales benefited in 2013 from higher selling prices.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales—2012		$6,963
Price	$118	
Sales volume	(48)	
Effects of changing foreign currency rates	(92)	
Total effect on net sales		(22)
Net sales—2013		$6,941

Europe: Net sales in Europe in 2013 were $2,787 million compared with $2,717 million in 2012, an increase of $70 million, or 3%. Net sales increased $68 million due to the favorable effects of foreign currency exchange rate changes, as the Euro strengthened in relation to the U.S. dollar. Higher selling prices benefited net sales in the current year by $18 million. Glass container shipments in 2013 were down less than 1% compared to the prior year, particularly in the beer and non-alcoholic beverage categories. The lower sales volume, which reduced net sales by $16 million, was mainly due to the macroeconomic environment in Europe, partially offset by an increase in wine bottle sales due to the Company's efforts to recover wine share lost in 2012.

North America: Net sales in North America in 2013 were $2,002 million compared with $1,966 million in 2012, an increase of $36 million, or 2%. The increase in net sales was due to higher selling prices of $44 million. The benefit of higher selling prices was partially offset by the unfavorable effects of foreign currency exchange rate changes, which decreased net sales by $8 million due to a weakening of the Canadian dollar in relation to the U.S. dollar. Glass container shipments were flat in the current year compared to the prior year, as lower megabeer bottle sales were offset by higher shipments of craft beer and non-alcoholic beverage containers.

South America: Net sales in South America in 2013 were $1,186 million compared with $1,252 million in 2012, a decrease of $66 million, or 5%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $99 million in 2013 compared to 2012, principally due to a 10% decline in the Brazilian real in relation to the U.S. dollar. Lower sales volume in the current year reduced net sales by $18 million due to a decline in glass container shipments of less than 1%, driven by lower beer demand across the region, general economic uncertainty and the impact of general

strikes in Colombia in the mining, agriculture and transportation industries. Higher selling prices benefited net sales $51 million in the current year.

Asia Pacific: Net sales in Asia Pacific in 2013 were $966 million compared with $1,028 million in 2012, a decrease of $62 million, or 6%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $53 million in 2013 compared to 2012, primarily due to the weakening of the Australian dollar in relation to the U.S. dollar. Glass container shipments were down almost 1% compared to the prior year, resulting in a $14 million decline in net sales, driven by lower shipments of beer bottles partially offset by gains in non-alcoholic beverage and food containers. Improved pricing increased net sales $5 million in the current year.

Segment Operating Profit

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2013 was $947 million compared to $935 million in 2012, an increase of $12 million, or 1%. The increase in segment operating profit was the result of higher selling prices and lower operating expenses due to global cost control initiatives. Cost inflation negatively impacted segment operating profit in the current year. The effects of changes in foreign currency exchange rates unfavorably impacted segment operating profit in 2013, primarily due to a weaker Brazilian real and Australian dollar in relation to the U.S. dollar, partially offset by a stronger Euro. Manufacturing and delivery costs were flat with the prior year as lower global production volumes were offset by benefits realized from permanent footprint initiatives.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit—2012		$935
Price and product mix	$ 118	
Sales volume	(3)	
Cost inflation	(134)	
Manufacturing and delivery Operating expenses and other	44	
Effects of changing foreign currency rates	(13)	
Total net effect on segment operating profit		12
Segment operating profit—2013		$947

Europe: Segment operating profit in Europe in 2013 was $305 million compared with $307 million in 2012, a decrease of $2 million, or 1%. The higher selling prices discussed above increased segment operating profit by $18 million, while the decline in sales volume decreased segment operating profit by $3 million. Cost inflation in the current year reduced segment operating profit by $39 million. Cost control initiatives and the asset optimization program, partially offset by higher spending on equipment repairs and logistical costs, had a net $16 million positive impact on segment operating profit during 2013, while the favorable effects of foreign currency exchange rate changes increased segment operating profit by $6 million.

The Company continued implementing the European asset optimization program to increase the efficiency and capability of its European operations. Through this program over the next several years,

the Company expects to improve the long term profitability of this region through investments and by addressing higher cost facilities to better align its European manufacturing footprint with market and customer needs.

North America: Segment operating profit in North America in 2013 was $307 million compared with $288 million in 2012, an increase of $19 million, or 7%. Higher selling prices in the current year increased segment operating profit by $44 million and lower operating expenses, driven by cost control initiatives, had a $17 million positive impact on segment operating profit. Cost inflation had a $40 million unfavorable impact on segment operating profit. Higher manufacturing and delivery costs decreased segment operating profit by $2 million in the current year.

South America: Segment operating profit in South America in 2013 was $204 million compared with $227 million in 2012, a decrease of $23 million, or 10%. The lower sales volume in the current year decreased segment operating profit by $2 million, while higher selling prices improved segment operating profit by $51 million, despite the price controls imposed by the Argentina government in the first half of the year. Cost inflation in the current year decreased segment operating profit by $37 million and higher manufacturing and delivery costs resulted in a $15 million decline in 2013 compared to the prior year. The higher manufacturing and delivery costs were primarily due to a higher number of furnace rebuilds and repairs in the current year and the effects of the general strikes in Colombia, partially offset by the benefits of the new furnace in Brazil that started production at the end of 2012. The unfavorable effects of foreign currency exchange rate changes decreased segment operating profit by $14 million in the current year while other costs increased by $6 million.

Asia Pacific: Segment operating profit in Asia Pacific in 2013 was $131 million compared with $113 million in 2012, an increase of $18 million, or 16%. The increase in segment operating profit was primarily due to a $18 million decline in manufacturing and delivery costs driven by the benefits realized from the permanent footprint adjustments made over the past year. Higher selling prices and sales volume increased segment operating profit by $5 million and $1 million, respectively, and lower operating expenses, driven by cost control initiatives, had a $16 million positive impact in the current year. Cost inflation reduced segment operating profit by $18 million, while the unfavorable effects of foreign currency exchange rate changes decreased segment operating profit by $4 million in 2013.

Interest Expense

Interest expense in 2013 was $239 million compared with $248 million in 2012. Interest expense for 2013 included $11 million for note repurchase premiums and the write-off of finance fees related to the discharge of the €300 million senior notes due 2017 and $3 million for loss on debt extinguishment and the write-off of finance fees related to the repurchase of a portion of the 2015 Exchangeable Notes. Exclusive of these items, interest expense decreased $23 million in the current year. The decrease was principally due to debt reduction initiatives and lower interest rates.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2013 was 35.8%, compared with 32.9% for 2012. Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2013 was 21.9%, compared with 22.1% for 2012.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2013 was $13 million compared to $34 million for 2012. The decrease was primarily due to $14 million included in 2012 related to a gain

recorded by the Company for cash received from the Chinese government as compensation for land in China that the Company was required to return to the government.

Earnings from Continuing Operations Attributable to the Company

For 2013, the Company recorded earnings from continuing operations attributable to the Company of $202 million compared with $186 million for 2012. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2013 and 2012 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2013**	**2012**
Restructuring, asset impairment and related charges	$ (92)	$(144)
Gain on China land compensation		33
Note repurchase premiums and write-off of finance fees	(11)	
Net benefit related to changes in unrecognized tax positions		14
Charge for asbestos-related costs	(145)	(155)
Total	$(248)	$(252)

Items Excluded from Reportable Segment Totals

Retained Corporate Costs and Other

Retained corporate costs and other for 2014 were $100 million compared with $119 million for 2013. Retained corporate costs and other declined in 2014 compared to 2013 due to lower pension expense.

Retained corporate costs and other for 2013 were $119 million compared with $106 million for 2012. Retained corporate costs and other for 2013 reflect lower earnings from global machine and equipment sales and other technical and engineering services, in addition to lower earnings from the Company's equity investment in a soda ash mining operation.

Restructuring, Asset Impairment and Other Charges

During 2014, the Company recorded charges totaling $91 million for restructuring, asset impairment and other charges. These charges reflect $76 million of completed and planned furnace closures in Europe and Asia Pacific and other charges of $15 million.

During 2013, the Company recorded charges totaling $119 million for restructuring, asset impairment and related charges. These charges reflect completed and planned plant and furnace closures in Europe, South America and Asia Pacific, as well as global headcount reduction initiatives. These charges also include an asset impairment charge related to the Company's operations in Argentina, primarily due to macroeconomic issues in that country.

During 2012, the Company recorded charges totaling $168 million for restructuring, asset impairment and related charges. These charges reflect completed and planned plant and furnace closures in Europe and Asia Pacific, as well as global headcount reduction initiatives.

See Note 9 to the Consolidated Financial Statements for additional information.

Charge for Asbestos-Related Costs

The fourth quarter of 2014 charge for asbestos-related costs was $135 million, compared to the fourth quarter of 2013 charge of $145 million. These charges resulted from the Company's comprehensive annual review of asbestos-related liabilities and costs. In each year, the Company concluded that an increase in the accrued liability was required to provide for estimated indemnity payments and legal fees arising from asbestos personal injury lawsuits and claims pending and expected to be filed during the several years following the completion of the comprehensive review. See "Critical Accounting Estimates" for further information.

Asbestos-related cash payments for 2014 were $148 million, a decrease of $10 million from 2013. Deferred amounts payable were approximately $13 million and $12 million at December 31, 2014 and 2013, respectively.

During 2014, the Company received approximately 1,470 new filings and disposed of approximately 1,870 claims. As of December 31, 2014, the number of asbestos-related claims pending against the Company was approximately 2,220. The Company anticipates that cash flows from operations and other sources will be sufficient to meet all asbestos-related obligations on a short-term and long-term basis. See Note 13 to the Consolidated Financial Statements for further information.

Pension Settlement Charges

During 2014, the Company recorded charges totaling $65 million for pension settlements in the United States and the Netherlands.

See Note 10 to the Consolidated Financial Statements for additional information.

Non-income tax charge

In the fourth quarter of 2014, the Company recorded a $69 million charge based on a ruling on a non-income tax assessment. See Note 13 to the Consolidated Financial Statements for additional information.

Gain on China Land Compensation

During 2012, the Company received $85 million from the Chinese government as compensation for land in China that the Company was required to return to the government. The Company recorded a gain of $61 million related to the disposal of this land.

Discontinued Operations

On October 26, 2010, the Venezuelan government, through Presidential Decree No. 7.751, expropriated the assets of Owens-Illinois de Venezuela and Fabrica de Vidrios Los Andes, C.A., two of the Company's subsidiaries in that country, which in effect constituted a taking of the going concerns of those companies.

Since the issuance of the decree, the Company cooperated with the Venezuelan government, as it is compelled to do under Venezuelan law, to provide for an orderly transition while ensuring the safety and well-being of the employees and the integrity of the production facilities. The Company engaged in negotiations with the Venezuelan government in relation to certain aspects of the expropriation, including the compensation payable by the government as a result of its expropriation. On September 26, 2011, the Company, having been unable to reach an agreement with the Venezuelan government regarding fair compensation, commenced an arbitration against Venezuela through the World Bank's International Centre for Settlement of Investment Disputes. The Company is unable at this stage to predict the amount, or timing of receipt, of compensation it will ultimately receive.

The loss from discontinued operations of $23 million for the year ended December 31, 2014 includes a settlement of a dispute with a purchaser of a previously disposed business, as well as ongoing costs related to the Venezuela expropriation.

Capital Resources and Liquidity

As of December 31, 2014, the Company had cash and total debt of $512 million and $3.5 billion, respectively, compared to $383 million and $3.6 billion, respectively, as of December 31, 2013. A significant portion of the cash was held in mature, liquid markets where the Company has operations, such as the U.S., Europe and Australia, and is readily available to fund global liquidity requirements. The amount of cash held in non-U.S. locations as of December 31, 2014 was $483 million.

Current and Long-Term Debt

On May 19, 2011, the Company entered into the Secured Credit Agreement (the "Agreement"). At December 31, 2014, the Agreement included a $900 million revolving credit facility, a $405 million term loan, a 81 million Canadian dollar term loan, and a €85 million term loan, each of which has a final maturity date of May 19, 2016. At December 31, 2014, the Company had unused credit of $804 million available under the Agreement.

The Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted junior payments, make certain asset sales within guidelines and limits, make capital expenditures beyond a certain threshold, engage in material transactions with shareholders and affiliates, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain outstanding debt obligations.

The Agreement also contains one financial maintenance covenant, a Leverage Ratio, that requires the Company to not exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by Credit Agreement EBITDA, as defined in the Agreement. The Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Leverage Ratio to exceed the specified maximum of 4.0x.

Failure to comply with these covenants and restrictions could result in an event of default under the Agreement. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Agreement and the lenders cause all of the outstanding debt obligations under the Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default or event of default under the Agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

The Leverage Ratio also determines pricing under the Agreement. The interest rate on borrowings under the Agreement is, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Agreement. These rates include a margin linked to the Leverage Ratio. The margins range from 1.25% to 2.00% for Eurocurrency Rate loans and from 0.25% to 1.00% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.25% to 0.50% per annum linked to the Leverage Ratio. The weighted average interest rate on borrowings outstanding under the Agreement at December 31, 2014 was 2.09%. As of December 31, 2014, the Company was in compliance with all covenants and restrictions in the Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Agreement will not be adversely affected by the covenants and restrictions.

Borrowings under the Agreement are secured by substantially all of the assets, excluding real estate, of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity in most of the Company's domestic subsidiaries and stock of certain foreign subsidiaries. All borrowings under the agreement are guaranteed by substantially all domestic subsidiaries of the Company for the term of the Agreement.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022 (the "Senior Notes due 2022"). The Company also issued senior notes with a face value of $300 million that bear interest at 5.375% and are due January 15, 2025 (the "Senior Notes due 2025," and together with the Senior Notes due 2022, the "New Senior Notes"). The New Senior Notes were issued via a private placement and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds from the New Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase $611 million aggregate principal amount of the 2015 Exchangeable Senior Notes. Approximately $18 million aggregate principal amount of the 2015 Exchangeable Senior Notes remain outstanding as of December 31, 2014. As part of the tender offer, the Company recorded $20 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in the fourth quarter of 2014.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €215 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines. Information related to the Company's accounts receivable securitization program as of December 31, 2014 and 2013 is as follows:

	2014	2013
Balance (included in short-term loans)	$ 122	$ 276
Weighted average interest rate	1.41%	1.41%

Cash Flows

Free cash flow was $329 million for 2014 compared to $339 million for 2013. The Company defines free cash flow as cash provided by continuing operating activities less additions to property, plant and equipment. Free cash flow does not conform to U.S. GAAP and should not be construed as an alternative to the cash flow measures reported in accordance with U.S. GAAP. The Company uses free cash flow for internal reporting, forecasting and budgeting and believes this information allows the board of directors, management, investors and analysts to better understand the Company's financial performance. Free cash flow for the years ended December 31, 2014 and 2013 is calculated as follows (dollars in millions):

	2014	2013
Cash provided by continuing operating activities	$ 698	$ 700
Additions to property, plant and equipment	(369)	(361)
Free cash flow	$ 329	$ 339

Operating activities: Cash provided by continuing operating activities was $698 million for 2014 compared to $700 million for 2013. The largest year-over-year benefit to cash flows from continuing operating activities in 2014 was due to lower pension contributions than in the prior year. During 2014,

the Company contributed $28 million to its defined benefit pension plans, compared with $96 million in 2013. The decrease in pension plan contributions in the current year was due to the Company making no discretionary contributions in 2014, compared to $65 million of discretionary contributions in 2013. In 2015, the Company expects that the total contributions for all plans will be approximately $20 million. Lower year-over-year asbestos payments and cash paid for restructuring activities of $10 million and $20 million, respectively, also benefited cash provided by continuing operating activities in 2014 compared to 2013.

These items were partially offset by lower earnings and a $52 million increase in cash paid for non-current assets and liabilities in 2014 compared to 2013. This increase was primarily due to cash paid for returnable packaging and deferred customer contracts.

Lower working capital levels benefited cash provided by continuing operating activities by $117 million in 2014 compared to 2013, primarily due to an increase in accounts payable and a decrease in accounts receivable. Accounts receivable decreased in 2014 due to lower sales in the fourth quarter and better cash collections, partly due to an increase in accounts receivable factoring. The Company uses various factoring programs to sell certain receivables to financial institutions.

Investing activities: Cash utilized in investing activities was $455 million for 2014 compared to $402 million for 2013. Capital spending for property, plant and equipment during 2014 was $369 million compared with $361 million in the prior year.

Investing activities in 2014 also included $114 million of cash paid for acquisitions, primarily related to the Company's investment in a joint venture with Constellation Brands, Inc. (NYSE: STZ) ("Constellation") to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant from one furnace to four over the next four years. The Company expects to contribute approximately $160 million for the joint venture's expansion plans.

Cash from investing activities in 2014 also included the net repayment of $9 million of loans from noncontrolling partners in South America and Asia Pacific compared to $16 million of loans made to noncontrolling partners in 2013. In 2013, the Company deconsolidated a subsidiary in Europe, resulting in a $32 million use of cash related to the subsidiary's cash on hand at the time of deconsolidation.

Financing activities: Cash utilized in financing activities was $70 million for 2014 compared to $321 million for 2013. Financing activities in 2014 included additions to long-term debt of $1,247 million, primarily related to the issuance of the $500 million of Senior Notes due 2022 and the $300 million of Senior Notes due 2025. Financing activities in 2014 also included the repayments of long-term debt of $1,101 million, primarily related to the repurchase of $626 million aggregate principal amount of the 2015 Exchangeable Notes, and repayments of short-term loans of $139 million. The Company also paid $11 million in 2014 for finance fees, primarily for note repurchase premiums associated with the repurchase of the 2015 Exchangeable Notes. Financing activities in 2013 included repayments of long-term debt of $1,040 million, partially offset by additions to long-term debt of $768 million, and additions to short-term loans of $8 million.

The Company paid $37 million and $22 million in distributions to noncontrolling interests in 2014 and 2013, respectively. The Company also repurchased shares of its common stock for $32 million in 2014 and $33 million in 2013. The Company received $5 million in 2014 from the exercise of stock options compared to $25 million in 2013.

In the fourth quarter of 2014, the Board of Directors authorized a $500 million share repurchase program through December 31, 2017. The Company expects to repurchase at least $125 million in shares of the Company's common stock in 2015, with a majority of this activity occurring in the first half of 2015 via an accelerated share repurchase plan.

The Company anticipates that cash flows from its operations and from utilization of credit available under the Agreement will be sufficient to fund its operating and seasonal working capital needs, debt service and other obligations on a short-term (twelve months) and long-term basis. Based on the Company's expectations regarding future payments for lawsuits and claims and also based on the Company's expected operating cash flow, the Company believes that the payment of any deferred amounts of previously settled or otherwise determined lawsuits and claims, and the resolution of presently pending and anticipated future lawsuits and claims associated with asbestos, will not have a material adverse effect upon the Company's liquidity on a short-term or long-term basis.

Contractual Obligations and Off-Balance Sheet Arrangements

The following information summarizes the Company's significant contractual cash obligations at December 31, 2014 (dollars in millions).

	Payments due by period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Contractual cash obligations:					
Long-term debt	$3,284	$ 338	$ 876	$250	$1,820
Capital lease obligations	63	24	12	9	18
Operating leases	245	54	88	61	42
Interest(1)	809	182	297	227	103
Purchase obligations(2)	1,510	718	551	158	83
Pension benefit plan contributions(3)	20	20			
Postretirement benefit plan benefit payments(1)	133	14	28	27	64
Equity affiliate investment obligation(4)	160	60	80	20	—
Total contractual cash obligations	$6,224	$1,410	$1,932	$752	$2,130

	Amount of commitment expiration per period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Other commercial commitments:					
Standby letters of credit	$96	$96			
Total commercial commitments	$96	$96			

(1) Amounts based on rates and assumptions at December 31, 2014.

(2) The Company's purchase obligations consist principally of contracted amounts for energy and molds. In cases where variable prices are involved, current market prices have been used. The amount above does not include ordinary course of business purchase orders because the majority of such purchase orders may be canceled. The Company does not believe such purchase orders will adversely affect its liquidity position.

(3) In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $20 million in 2015. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly.

(4) During the fourth quarter of 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand

the plant from one furnace to four over the next four years. The Company expects to contribute approximately $160 million for the joint venture's expansion plans.

The Company is unable to make a reasonably reliable estimate as to when cash settlement with taxing authorities may occur for its unrecognized tax benefits. Therefore, the liability for unrecognized tax benefits is not included in the table above. See Note 11 to the Consolidated Financial Statements for additional information.

Critical Accounting Estimates

The Company's analysis and discussion of its financial condition and results of operations are based upon its consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The Company evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical and other factors believed to be reasonable under the circumstances at the time the financial statements are issued. The results of these estimates may form the basis of the carrying value of certain assets and liabilities and may not be readily apparent from other sources. Actual results, under conditions and circumstances different from those assumed, may differ from estimates.

The impact of, and any associated risks related to, estimates and assumptions are discussed within Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in the Notes to the Consolidated Financial Statements, if applicable, where estimates and assumptions affect the Company's reported and expected financial results.

The Company believes that accounting for property, plant and equipment, impairment of long-lived assets, pension benefit plans, contingencies and litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements.

Property, Plant and Equipment

The net carrying amount of property, plant and equipment ("PP&E") at December 31, 2014 totaled $2.4 billion, representing 31% of total assets. Depreciation expense during 2014 totaled $335 million, representing approximately 6% of total costs of goods sold. Given the significance of PP&E and associated depreciation to the Company's consolidated financial statements, the determinations of an asset's cost basis and its economic useful life are considered to be critical accounting estimates.

Cost Basis—PP&E is recorded at cost, which is generally objectively quantifiable when assets are purchased individually. However, when assets are purchased in groups, or as part of a business, costs assigned to PP&E are based on an estimate of fair value of each asset at the date of acquisition. These estimates are based on assumptions about asset condition, remaining useful life and market conditions, among others. The Company frequently employs expert appraisers to aid in allocating cost among assets purchased as a group.

Included in the cost basis of PP&E are those costs which substantially increase the useful lives or capacity of existing PP&E. Significant judgment is needed to determine which costs should be capitalized under these criteria and which costs should be expensed as a repair or maintenance expenditure. For example, the Company frequently incurs various costs related to its existing glass melting furnaces and forming machines and must make a determination of which costs, if any, to

capitalize. The Company relies on the experience and expertise of its operations and engineering staff to make reasonable and consistent judgments regarding increases in useful lives or capacity of PP&E.

Estimated Useful Life—PP&E is generally depreciated using the straight-line method, which deducts equal amounts of the cost of each asset from earnings each period over its estimated economic useful life. Economic useful life is the duration of time an asset is expected to be productively employed by the Company, which may be less than its physical life. Management's assumptions regarding the following factors, among others, affect the determination of estimated economic useful life: wear and tear, product and process obsolescence, technical standards, and changes in market demand.

The estimated economic useful life of an asset is monitored to determine its appropriateness, especially in light of changed business circumstances. For example, technological advances, excessive wear and tear, or changes in customers' requirements may result in a shorter estimated useful life than originally anticipated. In these cases, the Company depreciates the remaining net book value over the new estimated remaining life, thereby increasing depreciation expense per year on a prospective basis. Likewise, if the estimated useful life is increased, the adjustment to the useful life decreases depreciation expense per year on a prospective basis. Changes in economic useful life assumptions did not have a material impact on the Company's reported results in 2014, 2013 or 2012.

Impairment of Long-Lived Assets

Property, Plant and Equipment—The Company tests for impairment of PP&E whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. PP&E held for use in the Company's business is grouped for impairment testing at the lowest level for which cash flows can reasonably be identified, typically a segment or a component of a segment. The Company evaluates the recoverability of property, plant and equipment based on undiscounted projected cash flows, excluding interest and taxes. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. PP&E held for sale is reported at the lower of carrying amount or fair value less cost to sell.

Impairment testing requires estimation of the fair value of PP&E based on the discounted value of projected future cash flows generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include, among other things: industry and market conditions, sales volume and prices, production costs and inflation. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The Company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

Goodwill—Goodwill at December 31, 2014 totaled $1.9 billion, representing 24% of total assets. Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment, also known as a component. Two or more components of an operating segment shall be aggregated into a single reporting unit if the components have similar economic characteristics, based on an assessment of various factors. The Company has determined that the Europe and North America segments are reporting units. The Company aggregated the components of the South America and Asia Pacific segments into single reporting units equal to the reportable segments. The aggregation of the components of these segments was based on their economic similarity as determined by the Company using a number of quantitative and qualitative factors, including gross margins, the manner in which the Company operates the business, the consistent nature of products, services, production processes, customers and methods of distribution, as well as the level of shared resources and assets between the components.

During the fourth quarter of 2014, the Company completed its annual impairment testing and determined that no impairment of goodwill existed. The testing performed as of October 1, 2014, indicated a significant excess of BEV over book value for each unit that has goodwill. If the Company's projected future cash flows were substantially lower, or if the assumed weighted average cost of capital was substantially higher, the testing performed as of October 1, 2014, may have indicated an impairment of one or more of these reporting units and, as a result, the related goodwill may also have been impaired. However, less significant changes in projected future cash flows or the assumed weighted average cost of capital would not have indicated an impairment. For example, if projected future cash flows had been decreased by 5%, or if the weighted average cost of capital had been increased by 5%, or both, the resulting lower BEV's would still have exceeded the book value of each of these reporting units.

The Company will monitor conditions throughout 2015 that might significantly affect the projections and variables used in the impairment test to determine if a review prior to October 1 may be appropriate. If the results of impairment testing confirm that a write down of goodwill is necessary, then the Company will record a charge in the fourth quarter of 2015, or earlier if appropriate. In the event the Company would be required to record a significant write down of goodwill, the charge would have a material adverse effect on reported results of operations and net worth.

Other Long-Lived Assets—Other long-lived assets include, among others, equity investments and repair parts inventories. The Company's equity investments are non-publicly traded ventures with other companies in businesses related to those of the Company. Equity investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable. In the event that a decline in fair value of an investment occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. Summarized financial information of equity affiliates is included in Note 5 to the Consolidated Financial Statements.

The Company carries a significant amount of repair parts inventories in order to provide a dependable supply of quality parts for servicing the Company's PP&E, particularly its glass melting furnaces and forming machines. The Company evaluates the recoverability of repair parts inventories based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the repair parts are written down to fair value. The Company continually monitors the carrying value of repair parts for recoverability, especially in light of changing business circumstances. For example, technological advances related to, and changes in, the estimated future demand for products produced on the equipment to which the repair parts relate may make the repair parts obsolete. In these circumstances, the Company writes down the repair parts to fair value.

Pension Benefit Plans

Significant Estimates—The determination of pension obligations and the related pension expense or credits to operations involves significant estimates. The most significant estimates are the discount rate used to calculate the actuarial present value of benefit obligations and the expected long-term rate of return on plan assets. The Company uses discount rates based on yields of high quality fixed rate debt securities at the end of the year. At December 31, 2014, the weighted average discount rate was 4.05% and 3.58% for U.S. and non-U.S. plans, respectively. The Company uses an expected long-term rate of return on assets that is based on both past performance of the various plans' assets and estimated future performance of the assets. Due to the nature of the plans' assets and the volatility of debt and equity markets, actual returns may vary significantly from year to year. The Company refers to average historical returns over longer periods (up to 10 years) in determining its expected rates of return because short-term fluctuations in market values do not reflect the rates of return the Company expects to achieve based upon its long-term investing strategy. For purposes of determining pension charges and credits in 2015, the Company's estimated weighted average expected long-term rate of return on plan assets is 8.00% for U.S. plans and 7.23% for non-U.S. plans compared to 8.00% for U.S. plans and 6.01% for non-U.S. plans in 2014. The Company recorded pension expense from continuing operations of $19 million, $60 million, and $54 million for the U.S. plans in 2014, 2013, and 2012, respectively, and $24 million, $41 million, and $38 million for the non-U.S. plans in 2014, 2013, and 2012, respectively from its principal defined benefit pension plans. Depending on currency translation rates, the Company expects to record approximately $30 million of total pension expense for the full year of 2015.

Future effects on reported results of operations depend on economic conditions and investment performance. For example, a one-half percentage point change in the actuarial assumption regarding either the expected return on assets or discount rates used to calculate plan liabilities would result in a change of approximately $16 million in the pretax pension expense for the full year 2015.

Recognition of Funded Status—The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

Contingencies and Litigation

The Company believes that its ultimate asbestos-related liability (i.e., its indemnity payments or other claim disposition costs plus related legal fees) cannot reasonably be estimated. The Company's ability to reasonably estimate its liability has been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in resolution of cases in which the Company is also a defendant. The Company continues to monitor trends that may affect its ultimate liability and continues to analyze the developments and variables affecting or likely to affect the resolution of pending and future asbestos claims against the Company.

The Company conducts a comprehensive review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. If the results of an annual comprehensive review

indicate that the existing amount of the accrued liability is insufficient to cover its estimated future asbestos-related costs, then the Company will record an appropriate charge to increase the accrued liability. The Company believes that a reasonable estimation of the probable amount of the liability for claims not yet asserted against the Company is not possible beyond a period of several years. Therefore, while the results of future annual comprehensive reviews cannot be determined, the Company expects that the addition of one year to the estimation period will usually result in an annual charge.

In the fourth quarter of 2014, the Company recorded a charge of $135 million to increase its accrued liability for asbestos-related costs. This compares to the 2013 charge of $145 million. The Company's accruals are based on a number of factors as described further in Note 13 to the Consolidated Financial Statements.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

Income Taxes

The Company accounts for income taxes as required by general accounting principles under which management judgment is required in determining income tax expense and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. Tax assessments may arise several years after tax returns have been filed. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using enacted tax rates and for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are determined separately for each tax jurisdiction in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards;
- taxable income in prior carryback years; and
- tax planning strategies

The assessment regarding whether a valuation allowance is required or should be adjusted also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of recent losses;

- duration of statutory carryforward periods;
- historical experience with tax attributes expiring unused; and
- near- and medium-term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last three years and current year anticipated results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

In the U.S., the Company has experienced cumulative losses in previous years and has recorded a valuation allowance against its deferred tax assets. As of December 31, 2014, however, the Company's U.S. operations are in a three-year cumulative income position, but this is not solely determinative of the need for a valuation allowance. The Company considered this factor and all other available positive and negative evidence and concluded that it is still more likely than not that the net deferred tax assets in the U.S. will not be realized, and accordingly continued to record a valuation allowance. The evidence considered included the magnitude of the current three-year cumulative income compared to historical losses, expected impact of tax planning strategies, interest rates, and the overall business environment. The Company continues to evaluate its cumulative income position and income trend as well as its future projections of sustained profitability and whether this profitability trend constitutes sufficient positive evidence to support a reversal of the valuation allowance (in full or in part). The amount of the valuation allowance recorded in the U.S. as of December 31, 2014 is $927 million.

The utilization of tax attributes to offset taxable income reduces the overall level of deferred tax assets subject to a valuation allowance. Additionally, the Company's recorded effective tax rate is lower than the applicable statutory tax rate, due primarily to income earned in jurisdictions for which a valuation allowance is recorded. The effective tax rate will approach the statutory tax rate in periods after valuation allowances are released. In the period in which valuation allowances are released, the Company will record a material tax benefit, which could result in a negative effective tax rate.

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Market risks relating to the Company's operations result primarily from fluctuations in foreign currency exchange rates, changes in interest rates, and changes in commodity prices, principally energy and soda ash. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates. The Company also uses certain derivative instruments to mitigate a portion of the risk associated with fluctuating energy prices in its North American region. These instruments carry varying degrees of counterparty credit risk. To mitigate this risk, the Company has defined a financial counterparty policy that established criteria to select qualified counterparties based on credit ratings and CDC spreads. The policy also limits on the exposure with

individual counterparties. The Company monitors these exposures quarterly. The Company does not enter into derivative financial instruments for trading purposes.

Foreign Currency Exchange Rate Risk

Earnings of operations outside the United States

A substantial portion of the Company's operations are conducted by subsidiaries outside the U.S. The primary international markets served by the Company's subsidiaries are in Canada, Australia, China, South America (principally Colombia and Brazil), and Europe (principally Italy, France, the Netherlands, Germany, the United Kingdom, Spain and Poland). In general, revenues earned and costs incurred by the Company's major international operations are denominated in their respective local currencies. Consequently, the Company's reported financial results could be affected by factors such as changes in foreign currency exchange rates or highly inflationary economic conditions in the international markets in which the Company's subsidiaries operate. When the U.S. dollar strengthens against foreign currencies, the reported U.S. dollar value of local currency earnings generally decreases; when the U.S. dollar weakens against foreign currencies, the reported U.S. dollar value of local currency earnings generally increases. For the years ended December 31, 2014, 2013, and 2012, the Company did not have any significant foreign subsidiaries whose functional currency was the U.S. dollar.

Borrowings not denominated in the functional currency

Because the Company's subsidiaries operate within their local economic environment, the Company believes it is appropriate to finance those operations with borrowings denominated in the local currency to the extent practicable where debt financing is desirable or necessary. This strategy mitigates the risk of reported losses or gains in the event the foreign currency strengthens or weakens against the U.S. dollar. Considerations which influence the amount of such borrowings include long- and short-term business plans, tax implications, and the availability of borrowings with acceptable interest rates and terms.

Available excess funds of a subsidiary may be redeployed through intercompany loans to other subsidiaries for debt repayment, capital investment, or other cash requirements. The intercompany loans give rise to foreign currency exchange rate risk, which the Company mitigates through the use of forward exchange contracts that effectively swap the intercompany loan and related interest to the appropriate local currency.

The Company believes the near term exposure to foreign currency exchange rate risk of its foreign currency risk sensitive instruments was not material at December 31, 2014 and 2013.

Interest Rate Risk

The Company's interest expense is most sensitive to changes in the general level of interest rates applicable to the term loans under its Secured Credit Agreement (see Note 12 to the Consolidated Financial Statements for further information). The Company's interest rate risk management objective is to limit the impact of interest rate changes on net income and cash flow, while minimizing interest payments and expense. To achieve this objective, the Company regularly evaluates its mix of fixed and floating-rate debt, and, from time to time, may enter into interest rate swap agreements.

The following table provides information about the Company's interest rate sensitivity related to its significant debt obligations at December 31, 2014. The table presents principal cash flows and related weighted-average interest rates by expected maturity date.

(dollars in millions)	2015	2016	2017	2018	2019	There-after	Total	Fair Value at 12/31/2014
Long-term debt at variable rate:								
Principal by expected maturity	$ 319	$ 274	$ 2	$ 2	$ 2	$ 4	$ 603	$ 603
Avg. principal outstanding	$ 443	$ 146	$ 8	$ 6	$ 5	$ 2		
Avg. interest rate	2.09%	2.09%	2.09%	2.09%	2.09%	2.09%		
Long-term debt at fixed rate:								
Principal by expected maturity	$ 42	$ 609	$ 2	$ 252	$ 2	$1,837	$2,744	$2,961
Avg. principal outstanding	$2,711	$2,379	$2,089	$1,954	$1,839	$1,687		
Avg. interest rate	6.21%	6.06%	5.88%	5.74%	5.62%	5.62%		

The Company believes the near term exposure to interest rate risk of its debt obligations has not changed materially since December 31, 2014.

In addition, the determination of pension obligations and the related pension expense or credits to operations involves significant estimates. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly. The discount rate is a significant estimate that is used to calculate the actuarial present value of benefit obligations and is based on yields of high quality fixed rate debt securities at the end of the year. For example, a one-half percentage point change in the actuarial assumption regarding discount rates used to calculate plan liabilities would result in a change of approximately $16 million in the pretax pension expense for the full year 2015.

Commodity Price Risk

The Company has exposure to commodity price risk, principally related to energy. In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2014, the Company had entered into commodity forward contracts covering approximately 450,000 MM BTUs, primarily related to customer requests to lock the price of natural gas. In Europe, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of 12 months or less.

The Company believes the near term exposure to commodity price risk of its commodity forward contracts was not material at December 31, 2014.

Forward Looking Statements

This document contains "forward looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. Forward looking statements reflect the Company's current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words "believe," "expect," "anticipate," "will," "could,"

"would," "should," "may," "plan," "estimate," "intend," "predict," "potential," "continue," and the negatives of these words and other similar expressions generally identify forward looking statements. It is possible the Company's future financial performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) foreign currency fluctuations relative to the U.S. dollar, specifically the Euro, Brazilian real and Australian dollar, (2) changes in capital availability or cost, including interest rate fluctuations and the ability of the Company to refinance debt at favorable terms, (3) the general political, economic and competitive conditions in markets and countries where the Company has operations, including uncertainties related to economic and social conditions, disruptions in capital markets, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, and changes in tax rates and laws, (4) consumer preferences for alternative forms of packaging, (5) cost and availability of raw materials, labor, energy and transportation, (6) the Company's ability to manage its cost structure, including its success in implementing restructuring plans and achieving cost savings, (7) consolidation among competitors and customers, (8) the ability of the Company to acquire businesses and expand plants, integrate operations of acquired businesses and achieve expected synergies, (9) unanticipated expenditures with respect to environmental, safety and health laws, (10) the Company's ability to further develop its sales, marketing and product development capabilities, and (11) the timing and occurrence of events which are beyond the control of the Company, including any expropriation of the Company's operations, floods and other natural disasters, events related to asbestos-related claims, and the other risk factors discussed in this Annual Report on Form 10-K for the year ended December 31, 2014 and any subsequently filed Quarterly Report on Form 10-Q. It is not possible to foresee or identify all such factors. Any forward looking statements in this document are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company's results of operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward looking statements contained in this document.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2014. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Illinois, Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 10, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2015

Owens-Illinois, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions, except per share amounts

Years ended December 31,	2014	2013	2012
Net sales	$ 6,784	$ 6,967	$ 7,000
Cost of goods sold	(5,531)	(5,636)	(5,626)
Gross profit	1,253	1,331	1,374
Selling and administrative expense	(523)	(506)	(555)
Research, development and engineering expense	(63)	(62)	(62)
Interest expense, net	(230)	(229)	(239)
Equity earnings	64	67	64
Other expense, net	(283)	(266)	(254)
Earnings from continuing operations before income taxes	218	335	328
Provision for income taxes	(92)	(120)	(108)
Earnings from continuing operations	126	215	220
Loss from discontinued operations	(23)	(18)	(2)
Net earnings	103	197	218
Net (earnings) attributable to noncontrolling interests	(28)	(13)	(34)
Net earnings attributable to the Company	$ 75	$ 184	$ 184
Amounts attributable to the Company:			
Earnings from continuing operations	$ 98	$ 202	$ 186
Loss from discontinued operations	(23)	(18)	(2)
Net earnings	$ 75	$ 184	$ 184
Basic earnings per share:			
Earnings from continuing operations	$ 0.60	$ 1.22	$ 1.13
Loss from discontinued operations	(0.14)	(0.11)	(0.01)
Net earnings	$ 0.46	$ 1.11	$ 1.12
Diluted earnings per share:			
Earnings from continuing operations	$ 0.59	$ 1.22	$ 1.12
Loss from discontinued operations	(0.14)	(0.11)	(0.01)
Net earnings	$ 0.45	$ 1.11	$ 1.11

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2014	2013	2012
Net earnings	$ 103	$ 197	$ 218
Other comprehensive income (loss):			
Foreign currency translation adjustments	(305)	(232)	(26)
Pension and other postretirement benefit adjustments, net of tax	(90)	609	(156)
Change in fair value of derivative instruments	1	2	5
Other comprehensive income (loss)	(394)	379	(177)
Total comprehensive income (loss)	(291)	576	41
Comprehensive income attributable to noncontrolling interests	(7)	(7)	(42)
Comprehensive income (loss) attributable to the Company	$(298)	$ 569	$ (1)

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2014	2013
Assets		
Current assets:		
Cash, including time deposits of $104 ($61 in 2013)	$ 512	$ 383
Receivables	744	943
Inventories	1,035	1,117
Prepaid expenses	80	107
Total current assets	2,371	2,550
Other assets:		
Equity investments	427	315
Pension assets	22	68
Other assets	700	795
Goodwill	1,893	2,059
Total other assets	3,042	3,237
Property, plant and equipment:		
Land, at cost	226	254
Buildings and equipment, at cost:		
Buildings and building equipment	1,097	1,197
Factory machinery and equipment	4,302	4,651
Transportation, office and miscellaneous equipment	105	123
Construction in progress	161	213
	5,891	6,438
Less accumulated depreciation	3,446	3,806
Net property, plant and equipment	2,445	2,632
Total assets	$7,858	$8,419

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions, except per share amounts

December 31,	2014	2013
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable	$ 1,137	$ 1,144
Salaries and wages	145	169
U.S. and foreign income taxes	43	38
Current portion of asbestos-related liabilities	143	150
Other accrued liabilities	372	431
Short-term loans	127	306
Long-term debt due within one year	361	16
Total current liabilities	2,328	2,254
Long-term debt	2,972	3,245
Deferred taxes	121	196
Pension benefits	465	350
Nonpension postretirement benefits	178	187
Other liabilities	227	286
Asbestos-related liabilities	292	298
Commitments and contingencies		
Share owners' equity:		
Share owners' equity of the Company:		
Common stock, par value $.01 per share, 250,000,000 shares authorized, 183,915,370 and 183,500,295 shares issued (including treasury shares), respectively	2	2
Capital in excess of par value	3,066	3,040
Treasury stock, at cost, 19,718,055 and 18,785,613 shares, respectively	(480)	(454)
Retained earnings (loss)	64	(11)
Accumulated other comprehensive loss	(1,494)	(1,121)
Total share owners' equity of the Company	1,158	1,456
Noncontrolling interests	117	147
Total share owners' equity	1,275	1,603
Total liabilities and share owners' equity	$ 7,858	$ 8,419

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owners' Equity of the Company						
	Common Stock	Capital in Excess of Par Value	Treasury Stock	Retained Earnings (Loss)	Accumulated Other Comprehensive Loss	Non-controlling Interests	Total Share Owners' Equity
Balance on January 1, 2012	2	2,991	(405)	(379)	(1,321)	153	1,041
Issuance of common stock (0.8 million shares)		3					3
Reissuance of common stock (0.3 million shares)			7				7
Treasury shares purchased (1.4 million shares)			(27)				(27)
Stock compensation		11					11
Net earnings				184		34	218
Other comprehensive income (loss)					(185)	8	(177)
Distributions to noncontrolling interests						(24)	(24)
Contribution from noncontrolling interests						3	3
Balance on December 31, 2012	2	3,005	(425)	(195)	(1,506)	174	1,055
Issuance of common stock (1.4 million shares)		25					25
Reissuance of common stock (0.2 million shares)			4				4
Treasury shares purchased (1.1 million shares)			(33)				(33)
Repurchase of exchangeable notes		(1)					(1)
Stock compensation		11					11
Net earnings				184		13	197
Other comprehensive income (loss)					385	(6)	379
Distributions to noncontrolling interests						(22)	(22)
Contribution from noncontrolling interests						5	5
Deconsolidation of subsidiary						(17)	(17)
Balance on December 31, 2013	$2	$3,040	$(454)	$ (11)	$(1,121)	$147	$1,603
Issuance of common stock (0.3 million shares)		5					5
Reissuance of common stock (0.2 million shares)			6				6
Treasury shares purchased (1.1 million shares)			(32)				(32)
Stock compensation		21					21
Net earnings				75		28	103
Other comprehensive income (loss)					(373)	(21)	(394)
Distributions to noncontrolling interests						(37)	(37)
Balance on December 31, 2014	$2	$3,066	$(480)	$ 64	$(1,494)	$117	$1,275

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2014	2013	2012
Operating activities:			
Net earnings	$ 103	$ 197	$ 218
Loss from discontinued operations	23	18	2
Non-cash charges (credits):			
Depreciation	335	350	378
Amortization of intangibles and other deferred items	83	47	34
Amortization of finance fees and debt discount	30	32	33
Deferred tax benefit	(18)	(3)	(5)
Pension expense	43	101	92
Restructuring, asset impairment and related charges	76	119	168
Pension settlement charges	65		
Non-income tax charge	69		
Gain on China land compensation			(61)
Future asbestos-related costs	135	145	155
Other	73	52	8
Pension contributions	(28)	(96)	(219)
Asbestos-related payments	(148)	(158)	(165)
Cash paid for restructuring activities	(58)	(78)	(66)
Change in non-current assets and liabilities	(202)	(150)	(73)
Change in components of working capital	117	124	81
Cash provided by continuing operating activities	698	700	580
Cash utilized in discontinued operating activities	(23)	(18)	(5)
Total cash provided by operating activities	675	682	575
Investing activities:			
Additions to property, plant and equipment	(369)	(361)	(290)
Acquisitions, net of cash acquired	(114)	(4)	(5)
Net cash proceeds related to sale of assets and other	19	11	95
Net activity for non-controlling partner loans	9	(16)	(21)
Deconsolidation of subsidiary		(32)	
Cash utilized in investing activities	(455)	(402)	(221)
Financing activities:			
Additions to long-term debt	1,247	768	119
Repayments of long-term debt	(1,101)	(1,040)	(402)
Increase (decrease) in short-term loans	(139)	8	(38)
Net foreign exchange derivative activity	(2)	(19)	27
Payment of finance fees	(11)	(7)	(1)
Distributions to noncontrolling interests	(37)	(22)	(24)
Treasury shares purchased	(32)	(33)	(27)
Contribution from noncontrolling interests		5	3
Issuance of common stock and other	5	19	4
Cash utilized in financing activities	(70)	(321)	(339)
Effect of exchange rate fluctuations on cash	(21)	(7)	16
Increase (decrease) in cash	129	(48)	31
Cash at beginning of year	383	431	400
Cash at end of year	$ 512	$ 383	$ 431

See accompanying Notes to the Consolidated Financial Statements.

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Illinois, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 21 countries. The principal markets and operations for the Company's products are in Europe, North America, South America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Stock-Based Compensation The Company has various stock-based compensation plans consisting of stock option grants and restricted share awards. Costs resulting from all share-based compensation plans are required to be recognized in the financial statements. A public entity is required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the required service period (usually the vesting period). No compensation cost is recognized for equity instruments for which employees do not render the required service.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for

1. Significant Accounting Policies (Continued)

doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from short-term forward exchange contracts not designated as hedges are classified as a financing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles

1. Significant Accounting Policies (Continued)

defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards In May 2014, the Financial Accounting Standards Board issued a new standards update "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new standard will become effective for the Company on January 1, 2017. Early application is not permitted. The Company is evaluating the effect this standard will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor determined the effect of the standard on its ongoing financial reporting.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, South America and Asia Pacific. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management

2. Segment Information (Continued)

considers not representative of ongoing operations as well as certain retained corporate costs. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2014	2013	2012
Net sales:			
Europe	$2,794	$2,787	$2,717
North America	2,003	2,002	1,966
South America	1,159	1,186	1,252
Asia Pacific	793	966	1,028
Reportable segment totals	6,749	6,941	6,963
Other	35	26	37
Net sales	$6,784	$6,967	$7,000

	2014	2013	2012
Segment operating profit:			
Europe	$ 353	$ 305	$ 307
North America	240	307	288
South America	227	204	227
Asia Pacific	88	131	113
Reportable segment totals	908	947	935
Items excluded from segment operating profit:			
Retained corporate costs and other	(100)	(119)	(106)
Restructuring, asset impairment and other charges	(91)	(119)	(168)
Charge for asbestos-related costs	(135)	(145)	(155)
Pension settlement charges	(65)		
Non-income tax charge	(69)		
Gain on China land compensation			61
Interest expense, net	(230)	(229)	(239)
Earnings from continuing operations before income taxes	$ 218	$ 335	$ 328

2. Segment Information (Continued)

	Europe	North America	South America	Asia Pacific	Reportable Segment Totals	Retained Corp Costs and Other	Consolidated Totals
Total assets:							
2014	$3,223	$1,971	$1,300	$1,018	$7,512	$346	$7,858
2013	3,509	1,995	1,467	1,150	8,121	298	8,419
2012	3,362	1,994	1,655	1,349	8,360	238	8,598
Equity investments:							
2014	$ 81	$ 24	$ —	$ 153	$ 258	$169	$ 427
2013	84	25		155	264	51	315
2012	63	25		165	253	41	294
Equity earnings:							
2014	$ 19	$ 17	$ —	$ 4	$ 40	$ 24	$ 64
2013	17	16		10	43	24	67
2012	15	16		5	36	28	64
Capital expenditures:							
2014	$ 188	$ 89	$ 55	$ 34	$ 366	$ 3	$ 369
2013	130	100	80	36	346	15	361
2012	87	68	75	49	279	11	290
Depreciation and amortization expense:							
2014	$ 140	$ 131	$ 79	$ 53	$ 403	$ 15	$ 418
2013	139	110	72	62	383	14	397
2012	150	107	70	70	397	15	412

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2014	$713	$1,732	$2,445
2013	686	1,946	2,632
2012	663	2,106	2,769

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2014	$1,852	$4,932	$6,784
2013	1,809	5,158	6,967
2012	1,780	5,220	7,000

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2014—11%, 2013—11%, 2012—11%).

3. Receivables

Receivables consist of the following at December 31, 2014 and 2013:

	2014	2013
Trade accounts receivable	$583	$757
Less: allowances for doubtful accounts and discounts	34	39
Net trade receivables	549	718
Other receivables	195	225
	$744	$943

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2014 and 2013, the amount of receivables sold by the Company was $276 million and $192 million, respectively. Any continuing involvement with the sold receivables is immaterial.

4. Inventories

Major classes of inventory are as follows:

	2014	2013
Finished goods	$ 884	$ 958
Raw materials	110	113
Operating supplies	41	46
	$1,035	$1,117

5. Equity Investments

At December 31, 2014 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50%	Glass container manufacturer
CO Vidrieria SARL	50%	Glass container manufacturer
Rocky Mountain Bottle Company	50%	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25%	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50%	Glass container manufacturer
Vetri Speciali SpA	50%	Speciality glass manufacturer

During the fourth quarter of 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. The Company has determined the accounting for the investment and returns as an equity joint venture.

During the fourth quarter of 2013, changes were made to the VeMe joint venture agreement that resulted in the Company relinquishing control of the joint venture and, therefore, deconsolidating the entity. No gain or loss was recognized related to the deconsolidation as the fair value of the entity was

5. Equity Investments (Continued)

equal to the carrying amount of the entity's assets and liabilities. The fair value, which the Company classified as Level 3 in the fair value hierarchy, was computed using a discounted cash flow analysis based on projected future cash flows of the joint venture.

Summarized information pertaining to the Company's equity associates follows:

	2014	2013	2012
Equity in earnings:			
Non-U.S.	$23	$27	$20
U.S.	41	40	44
Total	$64	$67	$64
Dividends received	$54	$67	$50

Summarized combined financial information for equity associates is as follows (unaudited):

	2014	2013
At end of year:		
Current assets	$ 479	$419
Non-current assets	718	528
Total assets	1,197	947
Current liabilities	217	224
Other liabilities and deferred items	191	193
Total liabilities and deferred items	408	417
Net assets	$ 789	$530

	2014	2013	2012
For the year:			
Net sales	$752	$699	$658
Gross profit	$198	$185	$191
Net earnings	$150	$149	$143

The Company purchased approximately $188 million and $133 million from equity affiliates in 2014 and 2013, respectively, and owed approximately $79 million and $42 million to equity affiliates as of December 31, 2014 and 2013, respectively.

There is a difference of approximately $9 million as of December 31, 2014 between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

6. Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2014, 2013 and 2012 are as follows:

	Europe	North America	South America	Other	Total
Balance as of January 1, 2012	983	740	354	5	2,082
Translation effects	23	3	(29)		(3)
Balance as of December 31, 2012	1,006	743	325	5	2,079
Translation effects	38	(9)	(49)		(20)
Balance as of December 31, 2013	1,044	734	276	5	2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	$ 926	$723	$239	$5	$1,893

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2014, 2013 and 2012.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2014, the Company completed its annual impairment testing and determined that no impairment existed.

7. Other Assets

Other assets consist of the following at December 31, 2014 and 2013:

	2014	2013
Deferred tax assets	$203	$237
Deferred returnable packaging costs	126	124
Repair part inventories	107	116
Capitalized software	101	114
Non-income tax receivable	58	70
Deferred finance fees	21	33
Intangibles	18	23
Other	66	78
	$700	$795

7. Other Assets (Continued)

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $17 million, $14 million and $15 million for 2014, 2013 and 2012, respectively. Estimated amortization related to capitalized software through 2019 is as follows: 2015, $17 million; 2016, $14 million; 2017, $13 million; 2018, $13 million; and 2019, $11 million.

8. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2014 and 2013, the Company had entered into commodity forward contracts covering approximately 450,000 MM BTUs and 5,400,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2014 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized loss of less than $1 million at December 31, 2014 and an unrecognized gain of $1 million at December 31, 2013 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2014 and 2013 was not material.

8. Derivative Instruments (Continued)

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2014, 2013 and 2012 is as follows:

Amount of Gain (Loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of Gain (Loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2014	2013	2012	2014	2013	2012
$3	$1	$(3)	$2	$(1)	$(8)

Foreign Exchange Derivative Contracts not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2014 and 2013, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $524 million and $550 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2014, 2013 and 2012 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2014	2013	2012
Other expense	$(8)	$(28)	$6

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative

8. Derivative Instruments (Continued)

fair value and maturity within one year. The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2014 and 2013:

		Fair Value	
	Balance Sheet Location	2014	2013
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity forward contracts	a	$—	$1
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	a	10	3
Total asset derivatives		$10	$4
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	c	4	7
Total liability derivatives		$ 4	$7

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations and reduce future expenses. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities (Continued)

European Asset Optimization

Since 2011, the Company has implemented the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involves making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $1 million in 2014, $16 million in 2013 and $86 million in 2012 for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company expects to execute further actions under this program in phases over the next several years.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $73 million, $49 million and $47 million for the years ended 2014, 2013 and 2012, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities.

Other Restructuring Actions

The Company took certain other restructuring actions and recorded charges in 2014 of $2 million for employee costs related to global headcount reduction initiatives. In 2013, there were charges of $16 million for employee costs related to the closure of flat glass operations in South America, $13 million for employee costs related to global headcount reduction initiatives, and $3 million for miscellaneous other costs. In 2012, the Company recorded charges of $13 million for employee costs and asset impairments related to a decision to close a machine manufacturing facility in the U.S., $7 million for employee costs and asset impairments related to a decision to close a mold shop in South America and $15 million for miscellaneous other costs.

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities (Continued)

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2013	53	6	64	123
2013 charges	16	49	32	97
Write-down of assets to net realizable value	(3)	(11)	(2)	(16)
Net cash paid, principally severance and related benefits	(37)	(16)	(25)	(78)
Pension charges transferred to other accounts		(6)		(6)
Other, including foreign exchange translation	1	(2)	(5)	(6)
Balance at December 31, 2013	30	20	64	114
2014 charges	1	73	2	76
Write-down of assets to net realizable value		(46)		(46)
Net cash paid, principally severance and related benefits	(12)	(20)	(26)	(58)
Pension charges transferred to other accounts		(7)		(7)
Other, including foreign exchange translation	(7)	(8)	(4)	(19)
Balance at December 31, 2014	$ 12	$ 12	$ 36	$ 60

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2014, the Company's estimates include approximately $28 million for severance and related benefits costs, $26 million for environmental remediation costs, and $6 million for other exit costs.

10. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company has defined benefit pension plans covering a substantial number of employees located in the United States and several other non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date. The following tables relate to the Company's principal defined benefit pension plans.

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The changes in the pension benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Obligations at beginning of year	$2,275	$2,647	$1,866	$1,911
Change in benefit obligations:				
Service cost	22	27	23	33
Interest cost	105	106	69	72
Actuarial (gain) loss, including the effect of change in discount rates	264	(234)	131	(5)
Curtailment, settlement, and plan amendment	(56)		(567)	(52)
Special termination		8		
Participant contributions			5	7
Benefit payments	(182)	(279)	(91)	(101)
Foreign currency translation			(125)	1
Net change in benefit obligations	153	(372)	(555)	(45)
Obligations at end of year	$2,428	$2,275	$1,311	$1,866

The changes in the fair value of the pension plans' assets for the year are as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Fair value at beginning of year	$2,273	$2,175	$1,578	$1,527
Change in fair value:				
Actual gain on plan assets	155	365	188	61
Benefit payments	(182)	(279)	(91)	(101)
Employer contributions		12	28	92
Participant contributions			5	7
Settlements	(56)		(519)	
Foreign currency translation			(94)	(5)
Other			(1)	(3)
Net change in fair value of assets	(83)	98	(484)	51
Fair value at end of year	$2,190	$2,273	$1,094	$1,578

The employer contributions in the U.S. for 2013 include $8 million related to special termination benefits for a discontinued operation.

The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

The funded status of the pension plans at year end is as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Plan assets at fair value	$2,190	$2,273	$1,094	$1,578
Projected benefit obligations	2,428	2,275	1,311	1,866
Plan assets less than projected benefit obligations	(238)	(2)	(217)	(288)
Items not yet recognized in pension expense:				
Actuarial loss	1,125	935	347	488
Prior service cost (credit)	(2)	2		(25)
	1,123	937	347	463
Net amount recognized	$ 885	$ 935	$ 130	$ 175

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Pension assets	$ —	$ 46	$ 22	$ 22
Current pension liability, included with Other accrued liabilities	(3)	(2)	(9)	(6)
Pension benefits	(235)	(46)	(230)	(304)
Accumulated other comprehensive loss	1,123	937	347	463
Net amount recognized	$ 885	$935	$ 130	$ 175

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2014 and 2013 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Current year actuarial (gain) loss	$285	$(416)	$ (23)	$ 28
Amortization of actuarial loss	(68)	(110)	(20)	(28)
Amortization of prior service credit			2	1
Curtailment and plan amendment			22	(52)
Settlement	(30)		(64)	(6)
	187	(526)	(83)	(57)
Translation			(32)	(5)
	$187	$(526)	$(115)	$(62)

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The accumulated benefit obligation for all defined benefit pension plans was $3,627 million and $4,015 million at December 31, 2014 and 2013, respectively.

The components of the net pension expense for the year are as follows:

	U.S.			Non-U.S.		
	2014	2013	2012	2014	2013	2012
Service cost	$ 22	$ 27	$ 27	$ 23	$ 33	$ 26
Interest cost	105	106	114	69	72	77
Expected asset return	(176)	(183)	(183)	(86)	(91)	(87)
Amortization:						
Actuarial loss	68	110	96	18	28	22
Prior service credit					(1)	
Net amortization	68	110	96	18	27	22
Net expense	$ 19	$ 60	$ 54	$ 24	$ 41	$ 38

In 2014, the Company amended its salary pension plans in North America to freeze future pension benefits. This action required an obligation remeasurement for the curtailment of benefits, which resulted in a reduction of the Company's pension expense. Also in 2014, the Company settled a portion of the U.S. Salary Pension Plan pension obligation, which resulted in a settlement charge of $30 million. The U.S. pension expense excludes $8 million of special termination benefits that were recorded in discontinued operations in 2013. The U.S. pension expense excludes $4 million of special termination benefits that were recorded in restructuring expense in 2012. On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands. The settlement resulted in a non-cash charge of approximately $35 million in the fourth quarter of 2014. The non-U.S. pension expense excludes $3 million, $6 million and $11 million of pension settlement costs that were recorded in restructuring expense in 2014, 2013 and 2012, respectively.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2015:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$73	$16
Prior service cost	1	
Net amortization	$74	$16

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds the Fair Value of Plan Assets				Accumulated Benefit Obligation Exceeds the Fair Value of Plan Assets			
	U.S.		Non-U.S.		U.S.		Non-U.S.	
	2014	2013	2014	2013	2014	2013	2014	2013
Projected benefit obligations	$2,428	$674	$1,049	$1,588	$2,428	$674	$1,049	$1,588
Accumulated benefit obligation	2,392	646	1,023	1,537	2,392	646	1,023	1,537
Fair value of plan assets	2,190	626	810	1,278	2,190	626	810	1,278

The weighted average assumptions used to determine benefit obligations are as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Discount rate	4.05%	4.81%	3.58%	4.14%
Rate of compensation increase	2.96%	2.97%	2.89%	3.31%

The weighted average assumptions used to determine net periodic pension costs are as follows:

	U.S.			Non-U.S.		
	2014	2013	2012	2014	2013	2012
Discount rate	4.81%	4.11%	4.59%	4.14%	3.89%	4.75%
Rate of compensation increase	2.97%	2.97%	3.14%	3.31%	3.08%	3.23%
Expected long-term rate of return on assets	8.00%	8.00%	8.00%	7.23%	6.34%	6.24%

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2014, the Company's weighted average expected long-term rate of return on assets was 8% for the U.S. plans and 7.23% for the non-U.S. plans. In developing this assumption, the Company evaluated input from its third party pension plan asset managers, including their review of asset class return expectations and long-term inflation assumptions. The Company also considered its historical 10-year average return (through December 31, 2013), which was in line with the expected long-term rate of return assumption for 2014.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets for the U.S. plans are maintained in a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The Company's U.S. pension plan assets held in the group trust are classified as Level 2 assets in the fair value hierarchy. The total U.S. plan assets amounted to $2,190 million and $2,273 million as of December 31, 2014 and 2013, respectively. In 2014, the U.S. plan assets consisted of approximately 62% equity securities, 29% debt securities, and 9% real estate. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2014 and 2013:

	2014			2013			Target
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	Allocation
Cash and cash equivalents	$ 14	$ —	$—	$ 39	$ 6	$—	
Equity securities	343	200		387	210		45 - 55%
Debt securities	364	119	2	752	116	2	40 - 50%
Real estate		30	3			6	0 - 10%
Other		19		13	47		0 - 10%
Total assets at fair value	$721	$368	$ 5	$1,191	$379	$ 8	

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2014	2013
Beginning balance	$ 8	$ 18
Net increase (decrease)	(3)	(10)
Ending balance	$ 5	$ 8

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2014.

In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of $20 million in 2015.

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2015	$184	$ 61
2016	177	63
2017	169	63
2018	165	65
2019	163	68
2020 - 2024	780	373

The Company also sponsors several defined contribution plans for all salaried and hourly U.S. employees, Canada employees, U.K. employees, Netherlands employees and Australian employees. Participation is voluntary and participants' contributions are based on their compensation. The Company matches contributions of participants, up to various limits, in substantially all plans. Company contributions to these plans amounted to $19 million in 2014, $16 million in 2013, and $16 million in 2012.

Postretirement Benefits Other Than Pensions

The Company provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees, and substantially all employees in Canada. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. The Company uses a December 31 measurement date to measure its postretirement benefit obligations.

The changes in the postretirement benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Obligations at beginning of year	$111	$181	$90	$102
Change in benefit obligations:				
Service cost		1	1	1
Interest cost	5	5	4	4
Actuarial (gain) loss, including the effect of changing discount rates	7	1	(2)	(7)
Benefit payments	(12)	(15)	(3)	(4)
Curtailment		(62)		
Foreign currency translation			(7)	(6)
Other			(2)	
Net change in benefit obligations	—	(70)	(9)	(12)
Obligations at end of year	$111	$111	$81	$ 90

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The funded status of the postretirement benefit plans at year end is as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Postretirement benefit obligations	$(111)	$(111)	$(81)	$(90)
Items not yet recognized in net postretirement benefit cost:				
Actuarial loss	35	30	(3)	(2)
Prior service credit	(46)	(54)		
	(11)	(24)	(3)	(2)
Net amount recognized	$(122)	$(135)	$(84)	$(92)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (11)	$ (10)	$ (3)	$ (4)
Nonpension postretirement benefits	(100)	(101)	(78)	(86)
Accumulated other comprehensive loss	(11)	(24)	(3)	(2)
Net amount recognized	$(122)	$(135)	$(84)	$(92)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2014 and 2013 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Current year actuarial (gain) loss	$ 7	$ 1	$(2)	$(7)
Curtailment		(57)		
Amortization of actuarial loss	(2)	(3)		
Amortization of prior service credit	8	7		
Other adjustments			1	
	$13	$(52)	$(1)	$(7)

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The components of the net postretirement benefit cost for the year are as follows:

	U.S.			Non-U.S.		
	2014	2013	2012	2014	2013	2012
Service cost	$—	$ 1	$ 1	$ 1	$ 1	$ 1
Interest cost	5	5	8	4	4	4
Curtailment gain		(5)				
Amortization:						
Actuarial loss	2	3	5			
Prior service credit	(8)	(7)	(3)			
Net amortization	(6)	(4)	2	—	—	—
Net postretirement benefit (income) cost	$(1)	$(3)	$11	$ 5	$ 5	$ 5

Amounts that are expected to be amortized from accumulated other comprehensive income into net postretirement benefit cost during 2015:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ 2	$—
Prior service credit	(8)	
Net amortization	$(6)	$—

Amortization included in net postretirement benefit cost is based on the average remaining service of employees. The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	U.S.			Non-U.S.		
	2014	2013	2012	2014	2013	2012
Accumulated post retirement benefit obligation	4.00%	4.63%	4.04%	3.75%	4.47%	3.89%
Net postretirement benefit cost	4.63%	4.04%	4.47%	4.47%	3.89%	4.13%

The weighted average assumed health care cost trend rates at December 31 are as follows:

	U.S.		Non-U.S.	
	2014	2013	2014	2013
Health care cost trend rate assumed for next year	7.00%	7.00%	5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00%	5.00%	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2024	2024	2014	2014

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	U.S.		Non-U.S.	
	1-Percentage-Point		1-Percentage-Point	
	Increase	Decrease	Increase	Decrease
Effect on total of service and interest cost	$—	$—	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	5	(4)	14	(11)

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2015	$11	$ 3
2016	11	3
2017	11	3
2018	11	3
2019	10	3
2020 - 2024	46	18

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in 2014, $6 million in 2013 and $6 million in 2012. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

11. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2014	2013	2012
U.S.	$(53)	$ 86	$ 32
Non-U.S.	271	249	296
	$218	$335	$328

Discontinued operations	2014	2013	2012
U.S.	$(19)	$ (8)	$—
Non-U.S.	(4)	(10)	(5)
	$(23)	$(18)	$(5)

11. Income Taxes (Continued)

The provision (benefit) for income taxes consists of the following:

	2014	2013	2012
Current:			
U.S.	$ 7	$ 7	$ (4)
Non-U.S.	103	116	117
	110	123	113
Deferred:			
U.S.			8
Non-U.S.	(18)	(3)	(13)
	(18)	(3)	(5)
Total:			
U.S.	7	7	4
Non-U.S.	85	113	104
Total for continuing operations	92	120	108
Total for discontinued operations			(3)
	$ 92	$120	$105

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2014	2013	2012
Tax provision on pretax earnings from continuing operations at statutory U.S. Federal tax rate	$ 76	$117	$115
Increase (decrease) in provision for income taxes due to:			
Differences in income taxes on foreign earnings, losses and remittances	(18)	(29)	(5)
Changes in valuation allowance	37	37	(7)
Tax audits and settlements	2	1	(1)
Other items	(5)	(6)	6
Provision for income taxes	$ 92	$120	$108

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

11. Income Taxes (Continued)

Significant components of the Company's deferred tax assets and liabilities at December 31, 2014 and 2013 are as follows:

	2014	2013
Deferred tax assets:		
Accrued postretirement benefits	$ 58	$ 60
Asbestos-related liabilities	152	157
Foreign tax credit	376	356
Operating and capital loss carryovers	464	489
Other credit carryovers	37	46
Accrued liabilities	85	89
Pension liability	117	47
Other	65	73
Total deferred tax assets	1,354	1,317
Deferred tax liabilities:		
Property, plant and equipment	127	126
Exchangeable notes		10
Intangibles	34	27
Other	36	59
Total deferred tax liabilities	197	222
Valuation allowance	(1,036)	(990)
Net deferred taxes	$ 121	$ 105

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Prepaid expenses	$ 39	$ 64
Other assets	203	237
Deferred taxes	(121)	(196)
Net deferred taxes	$ 121	$ 105

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

At December 31, 2014, before valuation allowance, the Company had unused foreign tax credits of $376 million expiring in 2017 through 2024, research tax credit of $12 million expiring from 2019 to 2034, and alternative minimum tax credits of $25 million which do not expire and which will be available to offset future U.S. Federal income tax. Approximately $174 million of the deferred tax

11. Income Taxes (Continued)

assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $290 million expiring between 2015 and 2035.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

In the U.S., the Company has experienced cumulative losses in previous years and has recorded a valuation allowance against its deferred tax assets. As of December 31, 2014 however, the Company's U.S. operations are in a three-year cumulative income position, but this is not solely determinative of the need for a valuation allowance. The Company considered this factor and all other available positive and negative evidence and concluded that it is still more likely than not that the net deferred tax assets in the U.S. will not be realized, and accordingly continued to record a valuation allowance. The evidence considered included the magnitude of the current three-year cumulative income compared to historical losses, expected impact of tax planning strategies, interest rates, and the overall business environment. The Company continues to evaluate its cumulative income position and income trend as well as its future projections of sustained profitability and whether this profitability trend constitutes sufficient positive evidence to support a reversal of the valuation allowance (in full or in part). The amount of the valuation allowance recorded in the U.S. as of December 31, 2014 is $927 million.

At December 31, 2014, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.9 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations and has not distributed any of these earnings to the U.S. in 2014, 2013 or 2012. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company has recognized tax benefits as a result of incentives in certain non-U.S. jurisdictions which expire between 2015 and 2016.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component

11. Income Taxes (Continued)

of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2014, 2013 and 2012:

	2014	2013	2012
Balance at January 1	$100	$ 97	$125
Additions and reductions for tax positions of prior years	(13)	(3)	8
Additions based on tax positions related to the current year	10	9	7
Reductions due to the lapse of the applicable statute of limitations	(8)	(2)	(21)
Reductions due to settlements	(1)		(26)
Foreign currency translation	(11)	(1)	4
Balance at December 31	$ 77	$100	$ 97
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 70	$ 92	$ 89
Accrued interest and penalties at December 31	$ 29	$ 35	$ 33
Interest and penalties included in tax expense for the years ended December 31	$ (2)	$ 1	$ (6)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably possible that the estimated liability could decrease up to $12 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Brazil, Canada, Germany, Indonesia, Italy and Peru. The years under examination range from 2005 through 2012. The Company believes that there are no jurisdictions in which the outcome of unresolved issues or claims is likely to be material to the Company's results of operations, financial position or cash flows. The Company further believes that adequate provisions for all income tax uncertainties have been made. During 2014, the Company concluded income tax audits in several jurisdictions, including Australia, Ecuador, Italy, and Poland.

12. Debt

The following table summarizes the long-term debt of the Company at December 31, 2014 and 2013:

	2014	2013
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan B	405	405
Term Loan C (81 million CAD at December 31, 2014)	70	76
Term Loan D (€85 million at December 31, 2014)	103	117
Senior Notes:		
3.00%, Exchangeable, due 2015	18	617
7.375%, net of discount, due 2016	596	593
6.75%, due 2020 (€500 million)	608	690
4.875%, due 2021 (€330 million)	401	455
5.00%, due 2022	494	
5.375%, due 2025	296	
Senior Debentures:		
7.80%, due 2018	250	250
Capital leases	63	37
Other	29	21
Total long-term debt	3,333	3,261
Less amounts due within one year	361	16
Long-term debt	$2,972	$3,245

On May 19, 2011, the Company entered into the Secured Credit Agreement (the "Agreement"). At December 31, 2014, the Agreement included a $900 million revolving credit facility, a $405 million term loan, an 81 million Canadian dollar term loan, and a €85 million term loan, each of which has a final maturity date of May 19, 2016. At December 31, 2014, the Company had unused credit of $804 million available under the Agreement.

The Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted junior payments, make certain asset sales within guidelines and limits, make capital expenditures beyond a certain threshold, engage in material transactions with shareholders and affiliates, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain outstanding debt obligations.

The Agreement also contains one financial maintenance covenant, a Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by Consolidated Adjusted EBITDA, as defined in the Agreement. The Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent

12. Debt (Continued)

that such financing or acquisitions would cause the Leverage Ratio to exceed the specified maximum of 4.0x.

Failure to comply with these covenants and restrictions could result in an event of default under the Agreement. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Agreement and the lenders cause all of the outstanding debt obligations under the Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default or event of default under the Agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

The Leverage Ratio also determines pricing under the Agreement. The interest rate on borrowings under the Agreement is, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Agreement. These rates include a margin linked to the Leverage Ratio. The margins range from 1.25% to 2.00% for Eurocurrency Rate loans and from 0.25% to 1.00% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.25% to 0.50% per annum linked to the Leverage Ratio. The weighted average interest rate on borrowings outstanding under the Agreement at December 31, 2014 was 2.09%. As of December 31, 2014, the Company was in compliance with all covenants and restrictions in the Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Agreement will not be adversely affected by the covenants and restrictions.

Borrowings under the Agreement are secured by substantially all of the assets, excluding real estate, of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity in most of the Company's domestic subsidiaries and stock of certain foreign subsidiaries. All borrowings under the agreement are guaranteed by substantially all domestic subsidiaries of the Company for the term of the Agreement.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022. The Company also issued senior notes with a face value of $300 million that bear interest at 5.375% and are due January 15, 2025. The New Senior Notes were issued via a private placement and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds from the New Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase in a tender offer $611 million aggregate principal amount of the Company's 3.00% exchangeable senior notes due June 1, 2015. Approximately $18 million of the exchangeable senior notes remain outstanding as of December 31, 2014. As part of the tender offer, the Company recorded $20 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in the fourth quarter of 2014.

During March 2013, the Company issued, in a private placement, senior notes with a face value of €330 million due March 31, 2021. The notes bear interest at 4.875% and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $418 million.

12. Debt (Continued)

During March 2013, the Company discharged, in accordance with the indenture, all €300 million of its 6.875% senior notes due 2017. The Company recorded $11 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees.

The Company has a €215 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines. Information related to the Company's accounts receivable securitization program as of December 31, 2014 and 2013 is as follows:

	2014	2013
Balance (included in short-term loans)	$ 122	$ 276
Weighted average interest rate	1.41%	1.41%

Annual maturities for all of the Company's long-term debt through 2019 are as follows: 2015, $361 million; 2016, $883 million; 2017, $4 million; 2018, $254 million; and 2019, $4 million.

Fair values at December 31, 2014, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
7.375%, due 2016	$600	$106.70	$640
6.75%, due 2020 (€500 million)	608	118.85	723
4.875%, due 2021 (€330 million)	401	110.00	441
5.00%, due 2022	500	101.81	509
5.375%, due 2025	300	101.25	304
Senior Debentures:			
7.80%, due 2018	250	112.31	281

13. Contingencies

Asbestos

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos dust. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company exited the pipe and block insulation business in April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory and in some cases, punitive damages in various amounts (herein referred to as "asbestos claims").

13. Contingencies (Continued)

The following table shows the approximate number of plaintiffs and claimants who had asbestos claims pending against the Company at the beginning of each listed year, the number of claims disposed of during that year, the year's filings and the claims pending at the end of each listed year (eliminating duplicate filings):

	2014	2013	2012
Pending at beginning of year	2,620	2,610	4,640
Disposed	1,870	1,700	4,390
Filed	1,470	1,710	2,360
Pending at end of year	2,220	2,620	2,610

Based on an analysis of the lawsuits pending as of December 31, 2014, approximately 81% of plaintiffs either do not specify the monetary damages sought, or in the case of court filings, claim an amount sufficient to invoke the jurisdictional minimum of the trial court. Approximately 13% of plaintiffs specifically plead damages above the jurisdictional minimum up to, and including, $15 million or less, and 5% of plaintiffs specifically plead damages greater than $15 million but less than $100 million. Fewer than 1% of plaintiffs specifically plead damages equal to or greater than $100 million.

As indicated by the foregoing summary, current pleading practice permits considerable variation in the assertion of monetary damages. The Company's experience resolving hundreds of thousands of asbestos claims and lawsuits over an extended period demonstrates that the monetary relief that may be alleged in a complaint bears little relevance to a claim's merits or disposition value. Rather, the amount potentially recoverable is determined by such factors as the severity of the plaintiff's asbestos disease, the product identification evidence against the Company and other defendants, the defenses available to the Company and other defendants, the specific jurisdiction in which the claim is made, and the plaintiff's medical history and exposure to other disease-causing agents.

In addition to the pending claims set forth above, the Company has claims-handling agreements in place with many plaintiffs' counsel throughout the country. These agreements require evaluation and negotiation regarding whether particular claimants qualify under the criteria established by such agreements. The criteria for such claims include verification of a compensable illness and a reasonable probability of exposure to a product manufactured by the Company's former business unit during its manufacturing period ending in 1958.

The Company has also been a defendant in other asbestos-related lawsuits or claims involving maritime workers, medical monitoring claimants, co-defendants and property damage claimants. Based upon its past experience, the Company believes that these categories of lawsuits and claims will not involve any material liability and they are not included in the above description of pending matters or in the following description of disposed matters.

Since receiving its first asbestos claim, the Company as of December 31, 2014, has disposed of the asbestos claims of approximately 395,000 plaintiffs and claimants at an average indemnity payment per claim of approximately $8,900. Certain of these dispositions have included deferred amounts payable. Deferred amounts payable totaled approximately $13 million at December 31, 2014 ($12 million at

13. Contingencies (Continued)

December 31, 2013) and are included in the foregoing average indemnity payment per claim. The Company's asbestos indemnity payments have varied on a per claim basis, and are expected to continue to vary considerably over time. As discussed above, a part of the Company's objective is to achieve, where possible, resolution of asbestos claims pursuant to claims-handling agreements. Failure of claimants to meet certain medical and product exposure criteria in the Company's administrative claims handling agreements has generally reduced the number of claims that would otherwise have been received by the Company in the tort system. In addition, certain courts and legislatures have reduced or eliminated the number of claims that the Company otherwise would have received by the Company in the tort system. These developments generally have had the effect of increasing the Company's per-claim average indemnity payment over time.

The Company believes that its ultimate asbestos-related liability (i.e., its indemnity payments or other claim disposition costs plus related legal fees) cannot reasonably be estimated. Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.4 billion through 2014, before insurance recoveries, for its asbestos-related liability. The Company's ability to reasonably estimate its liability has been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

The Company has continued to monitor trends that may affect its ultimate liability and has continued to analyze the developments and variables affecting or likely to affect the resolution of pending and future asbestos claims against the Company. The material components of the Company's accrued liability are based on amounts determined by the Company in connection with its annual comprehensive review and consist of the following estimates, to the extent it is probable that such liabilities have been incurred and can be reasonably estimated: (i) the liability for asbestos claims already asserted against the Company; (ii) the liability for asbestos claims not yet asserted against the Company, but which the Company believes will be asserted in the next several years; and (iii) the legal defense costs likely to be incurred in connection with the claims the Company believes will be asserted in the next several years.

The significant assumptions underlying the material components of the Company's accrual relate to:

a) the extent to which settlements are limited to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) the extent to which claims are resolved under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the extent of decrease or increase in the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases;

d) the extent to which the Company is able to defend itself successfully at trial or on appeal;

e) the number and timing of additional co-defendant bankruptcies; and

13. Contingencies (Continued)

f) the extent to which co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

As noted above, the Company conducts a comprehensive review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. If the results of an annual comprehensive review indicate that the existing amount of the accrued liability is insufficient to cover its estimated future asbestos-related costs, then the Company will record an appropriate charge to increase the accrued liability. The Company believes that a reasonable estimation of the probable amount of the liability for claims not yet asserted against the Company is not possible beyond a period of several years. Therefore, while the results of future annual comprehensive reviews cannot be determined, the Company expects that the addition of one year to the estimation period will usually result in an annual charge.

The Company's reported results of operations for 2014 were materially affected by the $135 million fourth quarter charge for asbestos-related costs and asbestos-related payments continue to be substantial. Any future additional charge would likewise materially affect the Company's results of operations for the period in which it is recorded. Also, the continued use of significant amounts of cash for asbestos-related costs has affected and may continue to affect the Company's cost of borrowing and its ability to pursue global or domestic acquisitions. However, the Company believes that its operating cash flows and other sources of liquidity will be sufficient to pay its obligations for asbestos-related costs and to fund its working capital and capital expenditure requirements on a short-term and long-term basis.

Other Matters

The Company conducted an internal investigation into conduct in certain of its overseas operations that may have violated the anti-bribery provisions of the United States Foreign Corrupt Practices Act (the "FCPA"), the FCPA's books and records and internal controls provisions, the Company's own internal policies, and various local laws. In October 2012, the Company voluntarily disclosed these matters to the U.S. Department of Justice (the "DOJ") and the Securities and Exchange Commission (the "SEC").

On July 18, 2013, the Company received a letter from the DOJ indicating that it presently did not intend to take any enforcement action and is closing its inquiry into the matter.

As disclosed in previous periods, the Company is presently unable to predict the duration, scope or result of an investigation by the SEC, if any, or whether the SEC will commence any legal action. The SEC has a broad range of civil sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, penalties, and modifications to business practices. The Company could also be subject to investigation and sanctions outside the United States. While the Company is currently unable to quantify the impact of any potential sanctions or remedial measures, it does not expect such actions will have a material adverse effect on the Company's liquidity, results of operations or financial condition.

The Company received a non-income tax assessment from a foreign tax authority for approximately $85 million (including penalties and interest). The Company challenged this assessment,

13. Contingencies (Continued)

but the tax authority's position was upheld in court. The case was heard by a higher court in November 2014, and on February 5, 2015, the Company was informed that the higher court had issued a unfavorable verdict. The Company strongly disagrees with this ruling, however, there are no further appeals available to the Company. The unfavorable ruling has resulted in a charge of $69 million. In order to contest the lower court rulings, legal rules required the Company to deposit the amount of the tax assessment, including penalties and interest. As of December 31, 2014, the Company has made installment payments totaling $76 million and a net refund of approximately $7 million is expected.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

14. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

14. Accumulated Other Comprehensive Income (Loss) (Continued)

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Income (Loss)
Balance on January 1, 2013	$ 455	$(14)	$(1,947)	$(1,506)
Change before reclassifications	(226)	1	503	278
Amounts reclassified from accumulated other comprehensive income		1(a)	139(b)	140
Tax effect			(33)	(33)
Other comprehensive income (loss) attributable to the Company	(226)	2	609	385
Balance on December 31, 2013	$ 229	$(12)	$(1,338)	$(1,121)
Change before reclassifications	(284)	3	(140)	(421)
Amounts reclassified from accumulated other comprehensive income		(2)(a)	92(b)	90
Translation effect			(32)	(32)
Tax effect			(10)	(10)
Other comprehensive income (loss) attributable to the Company	(284)	1	(90)	(373)
Balance on December 31, 2014	$ (55)	$(11)	$(1,428)	$(1,494)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 8 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 10 for additional information).

15. Stock Options and Other Stock Based Compensation

The Company has various nonqualified plans approved by share owners under which it has granted stock options, restricted shares and performance vested restricted share units. At December 31, 2014, there were 9,902,000 shares available for grants under these plans. Total compensation cost for all grants of shares and units under these plans was $21 million, $11 million and $11 million for the years ended December 31, 2014, 2013 and 2012, respectively.

Stock Options

Options granted prior to March 22, 2005, all of which are exercisable, expire following termination of employment or the day after the tenth anniversary date of the option grant.

15. Stock Options and Other Stock Based Compensation (Continued)

For options granted after March 21, 2005, no options may be exercised in whole or in part during the first year after the date granted. In general, subject to change in control, these options become exercisable 25% per year beginning on the first anniversary. In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Stock option information at December 31, 2014 and for the year then ended is as follows:

	Number of Shares (thousands)	Weighted Average Exercise Price (per share)	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at January 1, 2014	2,421	$25.50		
Granted	346	33.38		
Exercised	(231)	21.43		
Forfeited or expired	(115)	29.43		
Options outstanding at December 31, 2014	2,421	26.83	3.1	$12
Options vested or expected to vest at December 31, 2014	2,389	$26.80	3.0	$12
Options exercisable at December 31, 2014	1,595	$24.14	2.0	$11

Certain additional information related to stock options is as follows for the periods indicated:

	2014	2013	2012
Weighted average grant-date fair value of options granted (per share)	$13.17	$12.39	$10.63
Aggregate intrinsic value of options exercised	$ 3	$ 16	$ 3
Aggregate cash received from options exercised	$ 5	$ 24	$ 4

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model using the following weighted average assumptions:

	2014	2013	2012
Expected life of options (years)	5.00	5.00	4.75
Expected stock price volatility	43.0%	55.3%	56.6%
Risk-free interest rate	1.6%	0.9%	0.8%
Expected dividend yield	0.0%	0.0%	0.0%

The expected life of options is determined from historical exercise and termination data. The expected stock price volatility is determined by reference to historical prices over a period equal to the expected life.

15. Stock Options and Other Stock Based Compensation (Continued)

Restricted Shares and Restricted Share Units

Shares granted to employees prior to March 22, 2005, generally vest after three years or upon retirement, whichever is later. Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares granted before March 22, 2005, is amortized ratably over the vesting period. The fair value of restricted shares and restricted share units granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

The activity of restricted shares and restricted share units is as follows:

	Number of Restricted Shares (thousands)	Weighted Average Grant-Date Fair Value (per share)
Nonvested at January 1, 2014	457	$24.14
Granted	213	33.36
Vested	(153)	26.45
Forfeited	(30)	27.39
Nonvested at December 31, 2014	487	27.25
Awards granted during 2013		$26.49
Awards granted during 2012		$22.39

	2014	2013	2012
Total fair value of shares vested	$5	$5	$5

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of the Company's common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of the Company's Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of the Company's common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance

15. Stock Options and Other Stock Based Compensation (Continued)

vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

Performance vested restricted share unit activity is as follows:

	Number of Performance Vested Restricted Shares Units (thousands)	Weighted Average Grant-Date Fair Value (per unit)
Nonvested at January 1, 2014	882	$25.49
Granted	273	33.41
Vested	(56)	29.67
Forfeited/Cancelled	(196)	28.64
Nonvested at December 31, 2014	903	26.94
Awards granted during 2013		$26.10
Awards granted during 2012		$22.50

273,000 shares were issued in 2014 with a fair value at issuance date of $2 million related to performance vested restricted share units.

As of December 31, 2014, there was $15 million of total unrecognized compensation cost related to all unvested stock options, restricted shares, restricted share units and performance vested restricted share units. That cost is expected to be recognized over a weighted average period of approximately two years.

16. Other Expense, net

Other expense, net for the year ended December 31, 2014, 2013, and 2012 included the following:

	2014	2013	2012
Restructuring, asset impairment and related charges	$ 68	$ 97	$168
Charge for asbestos-related costs	135	145	155
Non-income tax charge	69		
Charge for Argentina impairment		22	
Gain on China land compensation			(61)
Foreign currency exchange (gain) loss	(2)	9	8
Other expense (income)	13	(7)	(16)
	$283	$266	$254

In 2014, the Company recorded charges totaling $76 million for restructuring, asset impairment and related charges. These charges include $68 million recorded to other expense and $8 million recorded to cost of goods sold. See Note 9 for additional information.

17. Operating Leases

Rent expense attributable to all warehouse, office buildings and equipment operating leases was $63 million in 2014, $57 million in 2013, and $76 million in 2012. Minimum future rentals under operating leases are as follows: 2015, $54 million; 2016, $46 million; 2017, $41 million; 2018, $36 million; 2019, $26 million; and 2020 and thereafter, $42 million.

18. Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share:

Years ended December 31,	2014	2013	2012
Numerator:			
Net earnings attributable to the Company	$ 75	$ 184	$ 184
Denominator (in thousands):			
Denominator for basic earnings per share - weighted average shares outstanding	164,720	164,425	164,474
Effect of dilutive securities:			
Stock options and other	1,327	1,403	1,294
Denominator for diluted earnings per share - adjusted weighted average shares	166,047	165,828	165,768
Basic earnings per share:			
Earnings from continuing operations	$ 0.60	$ 1.22	$ 1.13
Loss from discontinued operations	(0.14)	(0.11)	(0.01)
Net earnings	$ 0.46	$ 1.11	$ 1.12
Diluted earnings per share:			
Earnings from continuing operations	$ 0.59	$ 1.22	$ 1.12
Gain (loss) from discontinued operations	(0.14)	(0.11)	(0.01)
Net earnings	$ 0.45	$ 1.11	$ 1.11

Options to purchase 1,143,933, 1,315,216 and 2,125,963 weighted average shares of common stock which were outstanding during 2014, 2013 and 2012, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares.

19. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2014	2013	2012
Decrease (increase) in current assets:			
Receivables	$ 59	$ 18	$213
Inventories	(26)	(30)	(74)
Prepaid expenses and other	(1)	3	19
Increase (decrease) in current liabilities:			
Accounts payable	103	128	(53)
Accrued liabilities	12	7	(47)
Salaries and wages	(3)	(2)	29
U.S. and foreign income taxes	(27)		(6)
	$117	$124	$ 81

Interest paid in cash, including note repurchase premiums, aggregated $199 million for 2014, $205 million for 2013, and $234 million for 2012.

Income taxes paid in cash were as follows:

	2014	2013	2012
U.S.	$ —	$ —	$ —
Non-U.S.	101	128	132
Total income taxes paid in cash	$101	$128	$132

20. Discontinued Operations

The loss from discontinued operations of $23 million for the year ended December 31, 2014 included a settlement of a dispute with a purchaser of a previously disposed business, as well as ongoing costs related to the Venezuela expropriation.

The loss from discontinued operations of $18 million for the year ended December 31, 2013 included special termination benefits related to a previously disposed business, as well as ongoing costs related to the Venezuelan expropriation.

The loss from discontinued operations of $2 million for the year ended December 31, 2012 included ongoing costs related to the Venezuelan expropriation.

21. Financial Information for Subsidiary Guarantors and Non-Guarantors

The following presents condensed consolidating financial information for the Company, segregating: (1) Owens-Illinois, Inc., the issuer of senior debentures (the "Parent"); (2) the two subsidiaries which have guaranteed the senior debentures on a subordinated basis (the "Guarantor Subsidiaries"); and (3) all other subsidiaries (the "Non-Guarantor Subsidiaries"). The Guarantor Subsidiaries are 100% owned direct and indirect subsidiaries of the Company and their guarantees are full, unconditional and joint and several. They have no operations and function only as intermediate holding companies.

21. Financial Information for Subsidiary Guarantors and Non-Guarantors (Continued)

Certain reclassifications have been made to conform all of the financial information to the financial presentation on a consolidated basis. The principal eliminations relate to investments in subsidiaries and intercompany balances and transactions.

	December 31, 2014				
Balance Sheet	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Current assets:					
Cash and cash equivalents	$ —	$ —	$ 512	$ —	$ 512
Receivables			744		744
Inventories			1,035		1,035
Prepaid expenses			80		80
Total current assets	—	—	2,371	—	2,371
Investments in and advances to subsidiaries	1,863	1,593		(3,456)	—
Property, plant and equipment, net			2,445		2,445
Goodwill			1,893		1,893
Other assets			1,149		1,149
Total assets	$1,863	$1,593	$7,858	$(3,456)	$7,858
Current liabilities:					
Short-term loans and long-term debt due within one year	$ —	$ —	$ 488	$ —	$ 488
Current portion of asbestos liability	143				143
Accounts payable			1,137		1,137
Other liabilities	20		560	(20)	560
Total current liabilities	163	—	2,185	(20)	2,328
Long-term debt	250		2,972	(250)	2,972
Asbestos-related liabilities	292				292
Other long-term liabilities			991		991
Share owners' equity	1,158	1,593	1,593	(3,186)	1,158
Noncontrollling interest			117		117
Total liabilities and share owners' equity	$1,863	$1,593	$7,858	$(3,456)	$7,858

21. Financial Information for Subsidiary Guarantors and Non-Guarantors (Continued)

	December 31, 2013				
Balance Sheet	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Current assets:					
Cash and cash equivalents	$ —	$ —	$ 383	$ —	$ 383
Receivables			943		943
Inventories			1,117		1,117
Prepaid expenses			107		107
Total current assets	—	—	2,550	—	2,550
Investments in and advances to subsidiaries	2,154	1,904		(4,058)	—
Property, plant and equipment, net			2,632		2,632
Goodwill			2,059		2,059
Other assets			1,178		1,178
Total assets	$2,154	$1,904	$8,419	$(4,058)	$8,419
Current liabilities:					
Short-term loans and long-term debt due within one year	$ —	$ —	$ 322	$ —	$ 322
Current portion of asbestos liability	150				150
Accounts payable			1,144		1,144
Other liabilities			638		638
Total current liabilities	150	—	2,104	—	2,254
Long-term debt	250		3,245	(250)	3,245
Asbestos-related liabilities	298				298
Other long-term liabilities			1,019		1,019
Share owners' equity	1,456	1,904	1,904	(3,808)	1,456
Noncontrolling interests			147		147
Total liabilities and share owners' equity	$2,154	$1,904	$8,419	$(4,058)	$8,419

21. Financial Information for Subsidiary Guarantors and Non-Guarantors (Continued)

	Year ended December 31, 2014				
Results of Operations	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net sales	$ —	$ —	$ 6,784	$ —	$ 6,784
Cost of goods sold			(5,531)		(5,531)
Gross profit	—	—	1,253	—	1,253
Selling and administrative expense			(523)		(523)
Research, development and engineering expense			(63)		(63)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(210)		(230)
Equity earnings from subsidiaries	210	210		(420)	—
Other equity earnings			64		64
Other expense, net	(135)		(148)		(283)
Earnings before income taxes	75	210	353	(420)	218
Provision for income taxes			(92)		(92)
Earnings from continuing operations	75	210	261	(420)	126
Loss from discontinued operations			(23)		(23)
Net earnings	75	210	238	(420)	103
Net earnings attributable to noncontrolling interests			(28)		(28)
Net earnings attributable to the Company	$ 75	$210	$ 210	$(420)	$ 75

	Year ended December 31, 2014				
Comprehensive Income	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net earnings (loss)	$ 75	$ 210	$ 238	$(420)	$ 103
Other comprehensive income (loss)	(394)	(394)	(394)	788	(394)
Total comprehensive income (loss)	(319)	(184)	(156)	368	(291)
Comprehensive income attributable to noncontrolling interests	21		(7)	(21)	(7)
Comprehensive income (loss) attributable to the Company	$(298)	$(184)	$(163)	$ 347	$(298)

21. Financial Information for Subsidiary Guarantors and Non-Guarantors (Continued)

	Year ended December 31, 2013				
Results of Operations	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net sales	$ —	$ —	$ 6,967	$ —	$ 6,967
Cost of goods sold			(5,636)		(5,636)
Gross profit	—	—	1,331	—	1,331
Selling and administrative expense			(506)		(506)
Research, development and engineering expense			(62)		(62)
Net intercompany interest	20		(20)		
Interest expense, net	(20)		(209)		(229)
Equity earnings from subsidiaries	329	329		(658)	
Other equity earnings			67		67
Other expense, net	(145)		(121)		(266)
Earnings before income taxes	184	329	480	(658)	335
Provision for income taxes			(120)		(120)
Earnings from continuing operations	184	329	360	(658)	215
Loss from discontinued operations			(18)		(18)
Net earnings	184	329	342	(658)	197
Net earnings attributable to noncontrolling interests			(13)		(13)
Net earnings attributable to the Company	$ 184	$329	$ 329	$(658)	$ 184

	Year ended December 31, 2013				
Comprehensive Income	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net earnings (loss)	$184	$329	$ 342	$ (658)	$197
Other comprehensive income (loss)	379	379	379	(758)	379
Total comprehensive income (loss)	563	708	721	(1,416)	576
Comprehensive income attributable to noncontrolling interests	6		(7)	(6)	(7)
Comprehensive income (loss) attributable to the Company	$569	$708	$ 714	$(1,422)	$569

21. Financial Information for Subsidiary Guarantors and Non-Guarantors (Continued)

	Year ended December 31, 2012				
Results of Operations	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net sales	$ —	$ —	$ 7,000	$ —	$ 7,000
Cost of goods sold			(5,626)		(5,626)
Gross profit	—	—	1,374	—	1,374
Selling and administrative expense			(555)		(555)
Research, development and engineering expense			(62)		(62)
Net intercompany interest	20		(20)		
Interest expense, net	(20)		(219)		(239)
Equity earnings from subsidiaries	339	339		(678)	
Other equity earnings			64		64
Other expense, net	(155)		(99)		(254)
Earnings before income taxes	184	339	483	(678)	328
Provision for income taxes			(108)		(108)
Earnings from continuing operations	184	339	375	(678)	220
Loss from discontinued operations			(2)		(2)
Net earnings	184	339	373	(678)	218
Net earnings attributable to noncontrolling interests			(34)		(34)
Net earnings attributable to the Company	$ 184	$339	$ 339	$(678)	$ 184

	Year ended December 31, 2012				
Comprehensive Income	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net earnings (loss)	$ 184	$ 339	$ 373	$(678)	$ 218
Other comprehensive income	(177)	(177)	(177)	354	(177)
Total comprehensive income	7	162	196	(324)	41
Comprehensive income attributable to noncontrolling interests	(8)		(42)	8	(42)
Comprehensive income attributable to the Company	$ (1)	$ 162	$ 154	$(316)	$ (1)

21. Financial Information for Subsidiary Guarantors and Non-Guarantors (Continued)

	Year ended December 31, 2014				
Cash Flows	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash provided by (utilized in) operating activities	$(148)	$—	$ 823	$—	$ 675
Cash utilized in investing activities			(455)		(455)
Cash provided by (utilized in) financing activities	148		(218)		(70)
Effect of exchange rate change on cash			(21)		(21)
Net change in cash	—	—	129	—	129
Cash at beginning of period			383		383
Cash at end of period	$ —	$—	$ 512	$—	$ 512

	Year ended December 31, 2013				
Cash Flows	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash provided by (utilized in) operating activities	$(158)	$—	$ 840	$—	$ 682
Cash utilized in investing activities			(402)		(402)
Cash provided by (utilized in) financing activities	158		(479)		(321)
Effect of exchange rate change on cash			(7)		(7)
Net change in cash	—	—	(48)	—	(48)
Cash at beginning of period			431		431
Cash at end of period	$ —	$—	$ 383	$—	$ 383

	Year ended December 31, 2012				
Cash Flows	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash provided by (utilized in) operating activities	$(165)	$—	$ 740	$—	$ 575
Cash utilized in investing activities			(221)		(221)
Cash provided by (utilized in) financing activities	165		(504)		(339)
Effect of exchange rate change on cash			16		16
Net change in cash	—	—	31	—	31
Cash at beginning of period			400		400
Cash at end of period	$ —	$—	$ 431	$—	$ 431

Selected Quarterly Financial Data (unaudited) The following tables present selected financial data by quarter for the years ended December 31, 2014 and 2013:

	2014				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$1,639	$1,797	$1,745	$1,603	$6,784
Gross profit	$ 321	$ 358	$ 337	$ 237	$1,253
Earnings (loss) from continuing operations attributable to the Company(a)	$ 102	$ 134	$ 61	$ (199)	$ 98
Loss from discontinued operations attributable to the Company	(1)	(20)	(1)	(1)	(23)
Net earnings (loss) attributable to the Company	$ 101	$ 114	$ 60	$ (200)	$ 75
Earnings per share of common stock(b):					
Basic:					
Earnings (loss) from continuing operations	$ 0.62	$ 0.81	$ 0.37	$(1.20)	$ 0.60
Loss from discontinued operations	(0.01)	(0.12)	—	(0.01)	(0.14)
Net earnings (loss)	$ 0.61	$ 0.69	$ 0.37	$(1.21)	$ 0.46
Diluted:					
Earnings (loss) from continuing operations	$ 0.62	$ 0.80	$ 0.37	$(1.20)	$ 0.59
Loss from discontinued operations	(0.01)	(0.12)	—	(0.01)	(0.14)
Net earnings (loss)	$ 0.61	$ 0.68	$ 0.37	$(1.21)	$ 0.45

(a) Amounts management considers not representative of ongoing operations include:

Amount for the third quarter included charges totaling $84 million ($63 million after tax amount attributable to the Company) for restructuring, asset impairment and related charges. The effect of these charges was a reduction in earnings per share of $0.38.

Amount for the fourth quarter included net charges totaling $296 million ($274 million after tax amount attributable to the Company) for the following: (1) $135 million (pretax and after tax) to increase the accrual for estimated future asbestos-related costs; (2) $69 million (pretax and after tax) for non-income tax charge; (3) $7 million ($3 million after tax amount attributable to the Company) for restructuring, asset impairment and related charges; (4) $65 million ($55 million after tax attributable to the Company) for pension settlement charges; (5) $20 million (pretax and after tax) for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity; and (6) $8 million net benefit for certain tax adjustments. The effect of these charges was a reduction in earnings per share of $1.67.

(b) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

	2013				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$1,641	$1,781	$1,784	$1,761	$6,967
Gross profit	$ 319	$ 369	$ 352	$ 291	$1,331
Earnings (loss) from continuing operations attributable to the Company(c)	$ 79	$ 135	$ 132	$ (144)	$ 202
Loss from discontinued operations attributable to the Company	(10)	(3)	(2)	(3)	(18)
Net earnings (loss) attributable to the Company	$ 69	$ 132	$ 130	$ (147)	$ 184
Earnings per share of common stock(d):					
Basic:					
Earnings (loss) from continuing operations	$ 0.48	$ 0.82	$ 0.80	$(0.88)	$ 1.22
Loss from discontinued operations	(0.06)	(0.02)	(0.01)	(0.02)	(0.11)
Net earnings (loss)	$ 0.42	$ 0.80	$ 0.79	$(0.90)	$ 1.11
Diluted:					
Earnings (loss) from continuing operations	$ 0.48	$ 0.81	$ 0.79	$(0.88)	$ 1.22
Loss from discontinued operations	(0.06)	(0.02)	(0.01)	(0.02)	(0.11)
Net earnings (loss)	$ 0.42	$ 0.79	$ 0.78	$(0.90)	$ 1.11

(c) Amounts management considers not representative of ongoing operations include:

Amount for the first quarter included charges totaling $21 million ($20 million after tax amount attributable to the Company) for the following: (1) $11 million (pretax and after tax) for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity; and (2) $10 million ($9 million after tax amount attributable to the Company) for restructuring, asset impairment and related charges. The effect of these charges was a reduction in earnings per share of $0.12.

Amount for the fourth quarter included net charges totaling $254 million ($229 million after tax amount attributable to the Company) for the following: (1) $145 million (pretax and after tax) to increase the accrual for estimated future asbestos-related costs; and (2) $109 million ($84 million after tax amount attributable to the Company) for restructuring, asset impairment and related charges. The effect of these charges was a reduction in earnings per share of $1.38.

(d) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's Exchange Act reports is recorded, processed,

summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Also, the Company has investments in certain unconsolidated entities. As the Company does not control or manage these entities, its disclosure controls and procedures with respect to such entities are necessarily substantially more limited than those maintained with respect to its consolidated subsidiaries.

As required by Rule 13a-15(b) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2014.

Management concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2014. As required by Rule 13a-15(b) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of any change in the Company's internal controls over financial reporting that have materially affected, or is reasonably likely to materially affect, the Company's internal controls over financial reporting. There have been no changes in the Company's internal controls over financial reporting during the Company's most recent fiscal quarter that have materially affected, or are reasonably likely to material affect, the Company's internal controls over financial reporting.

Management's Report on Internal Control over Financial Reporting

The management of Owens-Illinois, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2014. In making this assessment management used the criteria for effective internal control over financial reporting as described in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO framework) in 2013.

Based on this assessment, using the criteria above, management concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2014.

The Company's independent registered public accounting firm, Ernst & Young LLP, that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting which is included below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

We have audited Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Owens-Illinois, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Owens-Illinois, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of results of operations, comprehensive income, share owners' equity, and cash flows for each of the three years in the period ended December 31, 2014 and our report dated February 10, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2015

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to non-officer directors and corporate governance is included in the 2015 Proxy Statement in the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" and such information is incorporated herein by reference.

Information with respect to executive officers is included herein in Item 1.

Code of Business Conduct and Ethics

The Company's Code of Business Conduct and Ethics, which is applicable to all directors, officers and employees of the Company, including the principal executive officer, the principal financial officer and the principal accounting officer, is available on the Investor Relations section of the Company's web site (www.o-i.com). A copy of the Code is also available in print to share owners upon request, addressed to the Corporate Secretary at Owens-Illinois, Inc., One Michael Owens Way, Perrysburg, Ohio 43551. The Company intends to post amendments to or waivers from its Code of Business Conduct and Ethics (to the extent applicable to the Company's directors, executive officers or principal financial officers) at this location on its web site.

ITEM 11. EXECUTIVE COMPENSATION

The section entitled "Executive Compensation," exclusive of the subsection entitled "Board Compensation Committee Report", which is included in the 2015 Proxy Statement, is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The section entitled "Security Ownership of Certain Beneficial Owners and Management" which is included in the 2015 Proxy Statement is incorporated herein by reference.

The following table summarizes securities authorized for issuance under equity compensation plans as of December 31, 2014.

	Equity Compensation Plan Information		
	(a)	(b)	(c)
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1) (thousands)	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (thousands)
Equity compensation plans approved by security holders	2,421	$26.83	9,902,000
Equity compensation plans not approved by security holders	—	—	—
Total	2,421	$26.83	9,902,000

(1) Represents options to purchase shares of the Company's common stock. There are no outstanding warrants or rights.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The section entitled "Director and Executive Compensation and Other Information," exclusive of the subsection entitled "Board Compensation Committee Report on Executive Compensation," which is included in the 2015 Proxy Statement, is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services is included in the 2015 Proxy Statement in the section entitled "Independent Registered Public Accounting Firm" and such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Index of Financial Statements and Financial Statement Schedules Covered by Report of Independent Auditors.

(a) DOCUMENTS FILED AS PART OF THIS REPORT

1. See Index to Consolidated Financial Statements on page 50 hereof.

2. See Quarterly Results (Unaudited) beginning on page 103 hereof.

3. Financial Statement Schedule:

	10-K Page
For the years ended December 31, 2014, 2013, and 2012:	
II—Valuation and Qualifying Accounts (Consolidated)	S-1
All other schedules have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule.	
(ii) Separate Financial Statements of Affiliates Whose Securities Are Pledged As Collateral	115

4. See Exhibit Index beginning on page 110 hereof.

EXHIBIT INDEX

S-K Item 601 No.		Document
3.1	—	Third Restated Certificate of Incorporation of Owens-Illinois, Inc. (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2012, File No. 1-9576, and incorporated herein by reference).
3.2	—	Third Amended and Restated Bylaws of Owens-Illinois, Inc., (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 8-K dated April 23, 2009, File No. 1-9576, and incorporated herein by reference).
4.1	—	Indenture dated as of May 20, 1998, between Owens-Illinois, Inc. and The Bank of New York, as Trustee (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.2	—	Officers' Certificate, dated May 20, 1998, establishing the terms of the 7.80% Senior Notes due 2018; including the Form of 7.80% Senior Note due 2018 (filed as Exhibits 4.5 and 4.9, respectively, to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.3	—	Supplemental Indenture, dated as of June 26, 2001 among Owens-Illinois, Inc., Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc. and The Bank of New York, as Trustee (May 20, 1998 Indenture) (filed as Exhibit 4.1 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2001, File No. 1-9576, and incorporated herein by reference).
4.4	—	Indenture, dated as of May 12, 2009, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as Trustee (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated May 12, 2009, File No. 33-13061, and incorporated herein by reference).
4.5	—	Indenture, dated as of May 7, 2010, by and among Owens-Brockway Glass Container Inc., Owens-Illinois, Inc., the Guarantors party thereto, and U.S. Bank National Association, as trustee, paying agent, registrar and exchange agent (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2010, File No. 1-9576, and incorporated herein by reference).
4.6	—	Form of Registration Rights Agreement, dated as of May 7, 2010, by and among Owens-Brockway Glass Container Inc., Owens-Illinois, Inc. and the Initial Purchasers named therein (filed as Exhibit 10.1 to Owens-Illinois Group, Inc.'s Form 8-K dated May 7, 2010, File No. 33-13061, and incorporated herein by reference).
4.7	—	Indenture, dated as of September 15, 2010, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar, Luxembourg paying agent and transfer agent, including the form of the Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated September 10, 2010, File No. 33-13061, and incorporated herein by reference).

S-K Item 601 No.		Document
4.8	—	Credit Agreement, dated as of May 19, 2011, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrower's agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.9	—	First Amendment to Credit Agreement and Consent, dated as of June 18, 2013, by and among the Borrowers named therein, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 10-Q for the quarter ended June 30, 2013, File No. 33-13061, and incorporated herein by reference).
4.10	—	Third Amended and Restated Intercreditor Agreement, dated as of May 19, 2011, by and among Deutsche Bank AG, New York Branch, as Administrative Agent for the lenders party to the Credit Agreement (as defined therein) and Deutsche Bank Trust Company Americas, as Collateral Agent (as defined therein) and any other parties thereto (filed as exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.11	—	Third Amended and Restated Pledge Agreement, dated as of May 19, 2011, between Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc., and Deutsche Bank Trust Company Americas, as Collateral Agent (as defined therein) and any other parties thereto (filed as exhibit 4.3 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.12	—	Security Agreement, dated as of May 19, 2011, between Owens-Illinois Group, Inc., each of the direct and indirect subsidiaries of Owens-Illinois Group, Inc. signatory thereto, and Deutsche Bank Trust Company Americas, as Collateral Agent (as defined therein) (filed as exhibit 4.4 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.13	—	Indenture dated as of March 22, 2013, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar and Luxembourg transfer agent, including the form of Notes (filed as exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated March 22, 2013, File No. 33-13061, and incorporated herein by reference).
4.14	—	Indenture dated as of December 3, 2014, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2022 Senior Notes and the form of 2025 Senior Notes (filed as exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated December 3, 2014, File No. 33-13061, and incorporated herein by reference).
10.1*	—	Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1998, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.2*	—	First Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2000, File No. 1-9576, and incorporated herein by reference).
10.3*	—	Second Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2002, File No. 1-9576, and incorporated herein by reference).
10.4*	—	Third Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2003, File No. 1-9576, and incorporated herein by reference).
10.5*	—	Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.26 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.6*	—	First Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.27 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.7*	—	Second Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 1997, File No. 1-9576, and incorporated herein by reference).
10.8*	—	Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1999, File No. 1-9576, and incorporated herein by reference).
10.9*	—	First Amendment to Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2002, File No. 1-9576, and incorporated herein by reference).
10.10*	—	Owens-Illinois, Inc. Executive Deferred Savings Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended September 30, 2001, File No. 1-9576, and incorporated herein by reference).
10.11*	—	2004 Equity Incentive Plan for Directors of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2004, File No. 1-9576, and incorporated herein by reference).
10.12*	—	Owens-Illinois 2004 Executive Life Insurance Plan (filed as Exhibit 10.32 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.13*	—	Owens-Illinois 2004 Executive Life Insurance Plan for Non-U.S. Employees (filed as Exhibit 10.33 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.14*	—	Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan dated as of April 24, 2009 (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2009, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.15*	—	Form of Non-Qualified Stock Option Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.25 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.16*	—	Form of Restricted Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.30 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
10.17*	—	Form of Phantom Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.31 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
10.18*	—	Form of Restricted Stock Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.28 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.19*	—	Form of Performance Share Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.29 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.20*	—	Amended and restated letter agreement between Owens-Illinois, Inc. and Albert P.L. Stroucken (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated October 26, 2011, File No. 1-9576, and incorporated herein by reference).
10.21*	—	Second Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 31, 2014, File No. 1-9576, and incorporated herein by reference).
12	—	Computation of Ratio of Earnings to Fixed Charges (filed herewith).
21	—	Subsidiaries of Owens-Illinois, Inc. (filed herewith).
23	—	Consent of Independent Registered Public Accounting Firm (filed herewith).
24	—	Owens-Illinois, Inc. Power of Attorney (filed herewith).
31.1	—	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	—	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.1	—	Certification of Principal Executive Officer pursuant to 18 U.S.C Section 1350 (filed herewith).
32.2	—	Certification of Principal Financial Officer pursuant to 18 U.S.C Section 1350 (filed herewith).

S-K Item 601 No.		Document
101	—	Financial statements from the annual report on Form 10-K of Owens-Illinois, Inc. for the year ended December 31, 2014, formatted in XBRL: (i) the Consolidated Results of Operations, (ii) the Consolidated Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Share Owners' Equity, (v) the Consolidated Cash Flows and (vi) the Notes to Consolidated Financial Statements.

* Indicates a management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(c).

SEPARATE FINANCIAL STATEMENTS OF AFFILIATES WHOSE SECURITIES ARE PLEDGED AS COLLATERAL.

1) Financial statements of Owens-Brockway Packaging, Inc. and subsidiaries including consolidated balance sheets as of December 31, 2014 and 2013, and the related results of operations, comprehensive income, share owners' equity, and cash flows for the years ended December 31, 2014, 2013 and 2012.

2) Financial statements of Owens-Brockway Glass Container Inc. and subsidiaries including consolidated balance sheets as of December 31, 2014 and 2013, and the related results of operations, comprehensive income, share owners' equity, and cash flows for the years ended December 31, 2014, 2013 and 2012.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owner of
Owens-Brockway Packaging, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Brockway Packaging, Inc. (the Company) as of December 31, 2014 and 2013, and the related consolidated statements of results of operations, comprehensive income, share owners' equity, and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Brockway Packaging, Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2015

Owens-Brockway Packaging, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions

Years ended December 31,	2014	2013	2012
Net sales	$ 6,784	$ 6,967	$ 7,000
Cost of goods sold	(5,523)	(5,621)	(5,615)
Gross profit	1,261	1,346	1,385
Selling and administrative expense	(412)	(429)	(482)
Research, development and engineering expense	(63)	(62)	(62)
Equity earnings	64	67	64
Interest expense, net	(210)	(210)	(219)
Other expense, net	(138)	(123)	(93)
Earnings from continuing operations before income taxes	502	589	593
Provision for income taxes	(93)	(120)	(114)
Earnings from continuing operations	409	469	479
Loss from discontinued operations	(4)	(10)	(5)
Net earnings	405	459	474
Net earnings attributable to noncontrolling interests	(28)	(13)	(34)
Net earnings attributable to the Company	$ 377	$ 446	$ 440
Amounts attributable to the Company:			
Earnings from continuing operations	$ 381	$ 456	$ 445
Loss from discontinued operations	(4)	(10)	(5)
Net earnings	$ 377	$ 446	$ 440

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2014	2013	2012
Net earnings	$ 405	$ 459	$ 474
Other comprehensive income (loss):			
Foreign currency translation adjustments	(305)	(232)	(26)
Pension and other postretirement benefit adjustments, net of tax	112	35	(184)
Change in fair value of derivative instruments	1	2	5
Other comprehensive income (loss)	(192)	(195)	(205)
Total comprehensive income	213	264	269
Comprehensive income attributable to noncontrolling interests	(7)	(7)	(42)
Comprehensive income attributable to the Company	$ 206	$ 257	$ 227

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2014	2013
Assets		
Current assets:		
Cash, including time deposits of $103 ($61 in 2013)	$ 483	$ 356
Receivables	737	942
Inventories	1,035	1,117
Prepaid expenses	62	100
Total current assets	2,317	2,515
Other assets:		
Equity investments	427	315
Pension assets	22	22
Other assets	621	702
Goodwill	1,893	2,059
Total other assets	2,963	3,098
Property, plant and equipment:		
Land, at cost	221	249
Buildings and equipment, at cost:		
Buildings and building equipment	1,055	1,153
Factory machinery and equipment	4,296	4,646
Transportation, office and miscellaneous equipment	85	100
Construction in progress	160	212
Less accumulated depreciation	3,405	3,763
Net property, plant and equipment	2,412	2,597
Total assets	$7,692	$8,210

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions

December 31,	2014	2013
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable including amount to related parties of $7 ($1 in 2013)	$1,128	$1,132
Salaries and wages	135	155
U.S. and foreign income taxes	43	40
Other accrued liabilities	322	381
Short-term loans	127	306
Long-term debt due within one year	361	15
Total current liabilities	2,116	2,029
External long-term debt	2,711	2,983
Deferred taxes	133	232
Pension benefits	230	304
Nonpension postretirement benefits	78	86
Other liabilities	207	261
Share owners' equity:		
Investment by and advances from Parent	2,408	2,305
Accumulated other comprehensive income (loss)	(308)	(137)
Total share owner's equity of the Company	2,100	2,168
Noncontrolling interests	117	147
Total share owners' equity	2,217	2,315
Total liabilities and share owners' equity	$7,692	$8,210

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owner's Equity of the Company			
	Investment by and Advances from Parent	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Share Owners' Equity
Balance on January 1, 2012	1,957	265	153	2,375
Net intercompany transactions	(255)			(255)
Net earnings	440		34	474
Other comprehensive income (loss)		(213)	8	(205)
Contribution from noncontrolling interests			3	3
Distributions to noncontrolling interests			(24)	(24)
Balance on December 31, 2012	2,142	52	174	2,368
Net intercompany transactions	(283)			(283)
Net earnings	446		13	459
Other comprehensive loss		(189)	(6)	(195)
Contribution from noncontrolling interests			5	5
Distributions to noncontrolling interests			(22)	(22)
Deconsolidation of subsidiary			(17)	(17)
Balance on December 31, 2013	2,305	(137)	147	2,315
Net intercompany transactions	(274)			(274)
Net earnings	377		28	405
Other comprehensive loss		(171)	(21)	(192)
Distributions to noncontrolling interests			(37)	(37)
Balance on December 31, 2014	$2,408	$(308)	$117	$2,217

See accompanying Notes to the Consolidated Financial Statements

Owens-Brockway Packaging, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2014	2013	2012
Operating activities:			
Net earnings	$ 405	$ 459	$ 474
Loss from discontinued operations	4	10	5
Non-cash charges (credits):			
Depreciation	331	345	374
Amortization of intangibles and other deferred items	75	40	27
Amortization of finance fees and debt discount	20	32	33
Deferred tax benefit	(18)	(3)	(3)
Restructuring, asset impairment and related charges	76	119	159
Non-income tax charge	69		
Gain on China land compensation			(61)
Other	(91)	36	(58)
Cash paid for restructuring activities	(58)	(78)	(65)
Change in non-current assets and liabilities	(25)	(134)	(54)
Change in components of working capital	158	124	(9)
Cash provided by continuing operating activities	946	950	822
Cash utilized in discontinued operating activities	(4)	(10)	(5)
Total cash provided by operating activities	942	940	817
Investing activities:			
Additions to property, plant and equipment	(369)	(360)	(290)
Acquisitions, net of cash acquired	(113)	(4)	(5)
Net cash proceeds related to sale of assets and other	16	10	95
Net activity for non-controlling partner loans	9	(16)	(21)
Deconsolidation of subsidiary		(32)	
Cash utilized in investing activities	(457)	(402)	(221)
Financing activities:			
Additions to long-term debt	1,226	768	119
Repayments of long-term debt	(1,100)	(1,040)	(401)
Increase (decrease) in short-term loans	(139)	8	(38)
Net receipts from (distribution to) parent	(274)	(283)	(255)
Net foreign exchange derivative activity	(2)	(24)	27
Payment of finance fees	(11)	(7)	(1)
Contribution from noncontrolling interests		5	3
Distributions to noncontrolling interests	(37)	(22)	(24)
Cash utilized in financing activities	(337)	(595)	(570)
Effect of exchange rate fluctuations on cash	(21)	(7)	16
Increase (decrease) in cash	127	(64)	42
Cash at beginning of year	356	420	378
Cash at end of year	$ 483	$ 356	$ 420

See accompanying Notes to Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tabular data dollars in millions

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Brockway Packaging, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Relationship with Owens-Illinois Group, Inc. and Owens-Illinois, Inc. The Company is a 100%-owned subsidiary of Owens-Illinois Group, Inc. ("OI Group") and an indirect subsidiary of Owens-Illinois, Inc. ("OI Inc."). Although OI Inc. does not conduct any operations, it has substantial obligations related to outstanding indebtedness and asbestos-related payments. OI Inc. relies primarily on distributions from its direct and indirect subsidiaries to meet these obligations.

For federal and certain state income tax purposes, the taxable income of the Company is included in the consolidated tax returns of OI Inc. and income taxes are allocated to the Company on a basis consistent with separate returns.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 21 countries. The principal markets and operations for the Company's products are in Europe, North America, South America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

1. Significant Accounting Policies (Continued)

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from short-term forward exchange contracts not designated as hedges are classified as a financing activity. Cash flows of commodity forward contracts are classified as operating activities.

1. Significant Accounting Policies (Continued)

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defined a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards In May 2014, the Financial Accounting Standards Board issued a new standards update "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new standard will become effective for the Company on January 1, 2017. Early application is not permitted. The Company is evaluating the effect this standard will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor determined the effect of the standard on its ongoing financial reporting.

Participation in OI Inc. Stock Option Plans and Other Stock Based Compensation The Company participates in the equity compensation plans of OI Inc. under which employees of the Company may be granted options to purchase common shares of OI Inc., restricted common shares of OI Inc., or restricted share units of OI Inc.

Stock Options

Options granted prior to March 22, 2005, all of which are exercisable, expire following termination of employment or the day after the tenth anniversary date of the option grant.

For options granted after March 21, 2005, no options may be exercised in whole or in part during the first year after the date granted. In general, subject to change in control, these options become

1. Significant Accounting Policies (Continued)

exercisable 25% per year beginning on the first anniversary. In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

Restricted Shares and Restricted Share Units

Shares granted to employees prior to March 22, 2005, generally vest after three years or upon retirement, whichever is later. Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of OI Inc.'s common stock for each unit. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met.

The fair value of the restricted shares and restricted share units is equal to the market price of OI Inc.'s common stock on the date of the grant. The fair value of restricted shares granted before March 22, 2005, is amortized ratably over the vesting period. The fair value of restricted shares and restricted share units granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of OI Inc.'s common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of OI Inc.'s Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of OI Inc.'s common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

As discussed in Note 21, costs incurred under these plans by OI Inc. related to stock-based compensation awards granted directly to the Company's employees are included in the allocable costs charged to the Company and other operating subsidiaries of OI Inc. on an intercompany basis.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, South America and Asia Pacific. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are

2. Segment Information (Continued)

reported with Other. These include licensing, equipment manufacturing, global engineering, and non-glass equity investments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2014	2013	2012
Net sales:			
Europe	$2,794	$2,787	$2,717
North America	2,003	2,002	1,966
South America	1,159	1,186	1,252
Asia Pacific	793	966	1,028
Reportable segment totals	6,749	6,941	6,963
Other	35	26	37
Net sales	$6,784	$6,967	$7,000

	2014	2013	2012
Segment operating profit:			
Europe	$ 353	$ 305	$ 307
North America	240	307	288
South America	227	204	227
Asia Pacific	88	131	113
Reportable segment totals	908	947	935
Items excluded from segment operating profit:			
Other	(1)	(29)	(25)
Restructuring, asset impairment and other charges	(91)	(119)	(159)
Non-income tax charge	(69)		
Pension Settlement charges	(35)		
Gain on China land compensation			61
Interest expense, net	(210)	(210)	(219)
Earnings (loss) from continuing operations before income taxes	$ 502	$ 589	$ 593

2. Segment Information (Continued)

	Europe	North America	South America	Asia Pacific	Reportable Segment Totals	Other	Consolidated Totals
Total assets:							
2014	$3,224	$1,963	$1,300	$1,018	$7,505	$187	$7,692
2013	3,509	1,986	1,467	1,150	8,112	98	8,210
2012	3,362	1,986	1,655	1,349	8,352	106	8,458
Equity investments:							
2014	$ 81	$ 24	$ —	$ 153	$ 258	$169	$ 427
2013	84	25		155	264	51	315
2012	63	25		165	253	41	294
Equity earnings:							
2014	$ 19	$ 17	$ —	$ 4	$ 40	$ 24	$ 64
2013	17	16		10	43	24	67
2012	15	16		5	36	28	64
Capital expenditures:							
2014	$ 188	$ 89	$ 55	$ 34	$ 366	$ 3	$ 369
2013	130	100	80	36	346	14	360
2012	87	68	75	49	279	11	290
Depreciation and amortization expense:							
2014	$ 140	$ 131	$ 79	$ 53	$ 403	$ 3	$ 406
2013	139	110	72	62	383	2	385
2012	150	107	70	70	397	4	401

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2014	$678	$1,734	$2,412
2013	651	1,946	2,597
2012	624	2,106	2,730

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2014	$1,852	$4,932	$6,784
2013	1,809	5,158	6,967
2012	1,780	5,220	7,000

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2014—11%, 2013—11%, 2012—11%).

3. Receivables

Receivables consist of the following at December 31, 2014 and 2013:

	2014	2013
Trade accounts receivable	$584	$757
Less: allowances for doubtful accounts and discounts	33	38
Net trade receivables	551	719
Other receivables	186	223
	$737	$942

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2014 and 2013, the amount of receivables sold by the Company was $276 million and $192 million, respectively. Any continuing involvement with the sold receivables is immaterial.

4. Inventories

Major classes of inventory are as follows:

	2014	2013
Finished goods	$ 884	$ 958
Raw materials	110	113
Operating supplies	41	46
	$1,035	$1,117

5. Equity Investments

At December 31, 2014 the Company's ownership percentage in equity associates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50%	Glass container manufacturer
CO Vidrieria SARL	50%	Glass container manufacturer
Rocky Mountain Bottle Company	50%	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25%	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50%	Glass container manufacturer
Vetri Speciali SpA	50%	Speciality glass manufacturer

During the fourth quarter of 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. The Company has determined the accounting for the investment and returns as an equity joint venture.

During the fourth quarter of 2013, changes were made to the VeMe joint venture agreement that resulted in the Company relinquishing control of the joint venture and, therefore, deconsolidating the entity. No gain or loss was recognized related to the deconsolidation as the fair value of the entity was

5. Equity Investments (Continued)

equal to the carrying amount of the entity's assets and liabilities. The fair value, which the Company classified as Level 3 in the fair value hierarchy, was computed using a discounted cash flow analysis based on projected future cash flows of the joint venture.

Summarized information pertaining to the Company's equity associates follows:

	2014	2013	2012
Equity in earnings:			
Non-U.S.	$23	$27	$20
U.S.	41	40	44
Total	$64	$67	$64
Dividends received	$54	$67	$50

Summarized combined financial information for equity associates is as follows (unaudited):

	2014	2013
At end of year:		
Current assets	$ 479	$419
Non-current assets	718	528
Total assets	1,197	947
Current liabilities	217	224
Other liabilities and deferred items	191	193
Total liabilities and deferred items	408	417
Net assets	$ 789	$530

	2014	2013	2012
For the year:			
Net sales	$752	$699	$658
Gross profit	$198	$185	$191
Net earnings	$150	$149	$143

The Company purchased approximately $188 million and $133 million from equity affiliates in 2014 and 2013, respectively, and owed approximately $79 million and $42 million to equity affiliates as of December 31, 2014 and 2013, respectively.

There is a difference of approximately $9 million as of December 31, 2014 between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

6. Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2014, 2013 and 2012 are as follows:

	Europe	North America	South America	Other	Total
Balance as of January 1, 2012	983	740	354	5	2,082
Translation effects	23	3	(29)		(3)
Balance as of December 31, 2012	1,006	743	325	5	2,079
Translation effects	38	(9)	(49)		(20)
Balance as of December 31, 2013	1,044	734	276	5	2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	$ 926	$723	$239	$5	$1,893

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2014, 2013 and 2012.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2014, the Company completed its annual impairment testing and determined that no impairment existed.

7. Other Assets

Other assets consist of the following at December 31, 2014 and 2013:

	2014	2013
Deferred tax assets	$203	$235
Deferred returnable packaging costs	126	124
Repair part inventories	107	116
Non-income tax receivable	58	70
Capitalized software	37	39
Deferred finance fees	20	32
Intangibles	18	23
Other	52	63
	$621	$702

8. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2014 and 2013, the Company had entered into commodity forward contracts covering approximately 450,000 MM BTUs and 5,400,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2014 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized loss of less than $1 million at December 31, 2014 and an unrecognized gain of $1 million at December 31, 2013 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2014 and 2013 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2014, 2013 and 2012 is as follows:

Amount of Gain (Loss) recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of Gain (Loss) reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2014	2013	2012	2014	2013	2012
$3	$1	$(3)	$2	$(1)	$(8)

Foreign Exchange Derivative Contracts not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or

8. Derivative Instruments (Continued)

commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2014 and 2013, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $524 million and $550 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2014, 2013 and 2012 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2014	2013	2012
Other expense	$(8)	$(28)	$6

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year. The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2014 and 2013:

		Fair Value	
	Balance Sheet Location	2014	2013
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	a	$—	$1
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	a	10	3
Total asset derivatives		$10	$4
Liability Derivatives:			
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	c	4	7
Total liability derivatives		$ 4	$7

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations and reduce future expenses. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

Since 2011, the Company has implemented the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involves making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $1 million in 2014, $16 million in 2013 and $86 million in 2012 for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company expects to execute further actions under this program in phases over the next several years.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $73 million, $49 million and $47 million for the years ended 2014, 2013 and 2012, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities.

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities (Continued)

Other Restructuring Actions

The Company took certain other restructuring actions and recorded charges in 2014 of $2 million for employee costs related to global headcount reduction initiatives. In 2013, there were charges of $16 million for employee costs related to the closure of flat glass operations in South America, $13 million for employee costs related to global headcount reduction initiatives, and $3 million for miscellaneous other costs. In 2012, the Company recorded charges of $13 million for employee costs and asset impairments related to a decision to close a machine manufacturing facility in the U.S., $7 million for employee costs and asset impairments related to a decision to close a mold shop in South America and $15 million for miscellaneous other costs.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2013	53	6	62	121
2013 charges	16	49	32	97
Write-down of assets to net realizable value	(3)	(11)	(2)	(16)
Net cash paid, principally severance and related benefits	(37)	(16)	(25)	(78)
Pension charges transferred to other accounts		(6)		(6)
Other, including foreign exchange translation	1	(2)	(5)	(6)
Balance at December 31, 2013	30	20	62	112
2014 charges	1	73	2	76
Write-down of assets to net realizable value		(46)		(46)
Net cash paid, principally severance and related benefits	(12)	(20)	(26)	(58)
Pension charges transferred to other accounts		(7)		(7)
Other, including foreign exchange translation	(7)	(8)	(4)	(19)
Balance at December 31, 2014	$ 12	$ 12	$ 34	$ 58

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2014, the Company's estimates include approximately $28 million for severance and related benefits costs, $26 million for environmental remediation costs, and $4 million for other exit costs.

10. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company participates in OI Inc.'s defined benefit pension plans for a substantial number of employees located in the United States. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. OI Inc.'s policy is to fund pension plans such

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

that sufficient assets will be available to meet future benefit requirements. Independent actuaries determine pension costs for each subsidiary of OI Inc. included in the plans; however, accumulated benefit obligation information and plan assets pertaining to each subsidiary have not been separately determined. As such, the accumulated benefit obligation and the plan assets related to the pension plans for domestic employees have been retained by another subsidiary of OI Inc. Net expense to results of operations for the Company's allocated portion of the domestic pension costs amounted to $19 million in 2014, $48 million in 2013 and $20 million in 2012.

OI Inc. also sponsors several defined contribution plans for all salaried and hourly U.S. employees of the Company. Participation is voluntary and participants' contributions are based on their compensation. OI Inc. matches contributions of participants, up to various limits, in substantially all plans. OI Inc. charges the Company for its share of the match. The Company's share of the contributions to these plans amounted to $17 million in 2014, $13 million in 2013 and $14 million in 2012.

The Company also has defined benefit pension plans covering a substantial number of employees in several non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the non-U.S. pension plans benefit obligations for the year were as follows:

	2014	2013
Obligations at beginning of year	$1,866	$1,911
Change in benefit obligations:		
Service cost	23	33
Interest cost	69	72
Actuarial (gain) loss, including the effect of change in discount rates	131	(5)
Curtailment and plan amendment	(567)	(52)
Participant contributions	5	7
Benefit payments	(91)	(101)
Foreign currency translation	(125)	1
Net change in benefit obligations	(555)	(45)
Obligations at end of year	$1,311	$1,866

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The changes in the fair value of the non-U.S. pension plans' assets for the year were as follows:

	2014	2013
Fair value at beginning of year	$1,578	$1,527
Change in fair value:		
Actual gain on plan assets	188	61
Benefit payments	(91)	(101)
Employer contributions	28	92
Participant contributions	5	7
Settlements	(519)	
Foreign currency translation	(94)	(5)
Other	(1)	(3)
Net change in fair value of assets	(484)	51
Fair value at end of year	$1,094	$1,578

The funded status of the non-U.S. pension plans at year end was as follows:

	2014	2013
Plan assets at fair value	$1,094	$1,578
Projected benefit obligations	1,311	1,866
Plan assets less than projected benefit obligations	(217)	(288)
Items not yet recognized in pension expense:		
Actuarial loss	347	488
Prior service credit		(25)
	347	463
Net amount recognized	$ 130	$ 175

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Pension assets	$ 22	$ 22
Current pension liability, included with Other accrued liabilities	(9)	(6)
Pension benefits	(230)	(304)
Accumulated other comprehensive loss	347	463
Net amount recognized	$ 130	$ 175

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2014 and 2013 as follows (amounts are pretax):

	2014	2013
Current year actuarial loss	$ (23)	$ 28
Amortization of actuarial loss	(20)	(28)
Amortization of prior service credit	2	1
Curtailment and plan amendment	22	(52)
Settlement	(64)	(6)
	(83)	(57)
Translation	(32)	(5)
	$(115)	$(62)

The accumulated benefit obligation for all defined benefit pension plans was $1,234 million and $1,790 million at December 31, 2014 and 2013, respectively.

The components of the non-U.S. pension plans' net pension expense were as follows:

	2014	2013	2012
Service cost	$ 23	$ 33	$ 26
Interest cost	69	72	77
Expected asset return	(86)	(91)	(87)
Amortization:			
Actuarial loss	18	28	22
Prior service credit		(1)	
Net amortization	18	27	22
Net expense	$ 24	$ 41	$ 38

On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands. The non-U.S. pension expense excludes $3 million, $6 million and $11 million of pension settlement costs that were recorded in restructuring expense in 2014, 2013 and 2012, respectively.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2015:

Amortization:	
Actuarial loss	$16
Prior service cost	
Net amortization	$16

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds Fair Value of Plan Assets		Accumulated Benefit Obligation Exceeds Fair Value of Plan Assets	
	2014	2013	2014	2013
Projected benefit obligations	$1,049	$1,588	$1,049	$1,588
Accumulated benefit obligation	1,023	1,537	1,023	1,537
Fair value of plan assets	810	1,278	810	1,278

The weighted average assumptions used to determine benefit obligations were as follows:

	2014	2013
Discount rate	3.58%	4.14%
Rate of compensation increase	2.89%	3.31%

The weighted average assumptions used to determine net periodic pension costs were as follows:

	2014	2013	2012
Discount rate	4.14%	3.89%	4.75%
Rate of compensation increase	3.31%	3.08%	3.23%
Expected long-term rate of return on assets	7.23%	6.34%	6.24%

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2014, the Company's weighted average expected long-term rate of return on assets was 7.23% for the non-U.S. plans. In developing this assumption, the Company evaluated input from its third party pension plan asset managers, including their review of asset class return expectations and long-term inflation assumptions. The Company also considered its historical 10-year average return (through December 31, 2013), which was in line with the expected long-term rate of return assumption for 2014.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets for the U.S. plans are maintained in a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The following table sets forth by level, within the fair value hierarchy, the Company's pension plan assets at fair value as of December 31, 2013 and 2012:

	2014			2013			Target Allocation
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	
Cash and cash equivalents	$ 14	$ —	$—	$ 39	$ 6	$—	
Equity securities	343	200		387	210		45 - 55%
Debt securities	364	119	2	752	116	2	40 - 50%
Real estate		30	3			6	0 - 10%
Other		19		13	47		0 - 10%
Total assets at fair value	$721	$368	$ 5	$1,191	$379	$ 8	

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2014	2013
Beginning balance	$ 8	$ 18
Net increase (decrease)	(3)	(10)
Ending balance	$ 5	$ 8

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2014.

In order to maintain minimum funding requirements, the Company is required to make contributions to its non-U.S. defined benefit pension plans of approximately $20 million in 2015.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2015	$ 61
2016	63
2017	63
2018	65
2019	68
2020 - 2024	373

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

Postretirement Benefits Other Than Pensions

OI Inc. provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. Independent actuaries determine postretirement benefit costs for each subsidiary of OI Inc.; however, accumulated postretirement benefit obligation information pertaining to each subsidiary has not been separately determined. As such, the accumulated postretirement benefit obligation has been retained by another subsidiary of OI Inc.

The Company's net periodic postretirement benefit cost, as allocated by OI Inc., for domestic employees was $1 million, $3 million, and $6 million at December 31, 2014, 2013, and 2012, respectively.

The Company also has postretirement benefit plans covering substantially all employees in Canada. The following tables relate to the Company's postretirement benefit plans in Canada.

The changes in the postretirement benefit obligations for the year were as follows:

	2014	2013
Obligations at beginning of year	$90	$102
Change in benefit obligations:		
Service cost	1	1
Interest cost	4	4
Actuarial (gain) loss, including the effect of changing discount rates	(2)	(7)
Benefit payments	(3)	(4)
Foreign currency translation	(7)	(6)
Other	(2)	
Net change in benefit obligations	(9)	(12)
Obligations at end of year	$81	$ 90

The funded status of the postretirement benefit plans at year end was as follows:

	2014	2013
Postretirement benefit obligations	$(81)	$(90)
Items not yet recognized in net postretirement benefit cost:		
Actuarial loss	(3)	(2)
Net amount recognized	$(84)	$(92)

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (3)	$ (4)
Nonpension postretirement benefits	(78)	(86)
Accumulated other comprehensive loss	(3)	(2)
Net amount recognized	$(84)	$(92)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2014 and 2013 as follows (amounts are pretax):

	2014	2013
Current year actuarial (gain) loss	$(1)	$(7)

The components of the net postretirement benefit cost for the year were as follows:

	2014	2013	2012
Service cost	$1	$1	$1
Interest cost	4	4	4
Net postretirement benefit cost	$5	$5	$5

The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost were as follows:

	2014	2013	2012
Accumulated post retirement benefit obligation	3.75%	4.47%	3.89%
Net postretirement benefit cost	4.47%	3.89%	4.13%

The weighted average assumed health care cost trend rates at December 31 were as follows:

	2014	2013
Health care cost trend rate assumed for next year	5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2014	2014

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-Percentage-Point	
	Increase	Decrease
Effect on total of service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	14	(11)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2015	$ 3
2016	3
2017	3
2018	3
2019	3
2020 - 2024	18

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in each of the years 2014, 2013 and 2012. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

11. Income Taxes

The provision (benefit) for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2014	2013	2012
U.S.	$231	$340	$297
Non-U.S.	271	249	296
	$502	$589	$593

Discontinued operations	2014	2013	2012
U.S.	$—	$ —	$—
Non-U.S.	(4)	(10)	(5)
	$(4)	$(10)	$(5)

11. Income Taxes (Continued)

The provision (benefit) for income taxes consists of the following:

	2014	2013	2012
Current:			
U.S.	$ 8	$ 7	$ —
Non-U.S.	103	116	117
	111	123	117
Deferred:			
U.S.			10
Non-U.S.	(18)	(3)	(13)
	(18)	(3)	(3)
Total:			
U.S.	8	7	10
Non-U.S.	85	113	104
Total	$ 93	$120	$114

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2014	2013
Tax provision on pretax earnings (loss) from continuing operations at statutory U.S. Federal tax rate	$177	$206
Increase (decrease) in provision for income taxes due to:		
Differences in income taxes on foreign earnings, losses and remittances	(19)	(29)
Goodwill impairment		
U.S. tax consolidation benefit	(47)	(51)
Changes in valuation allowance	(12)	(1)
Tax audits and settlements	2	1
Other items	(8)	(6)
Provision for income taxes	$ 93	$120

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

11. Income Taxes (Continued)

Significant components of the Company's deferred tax assets and liabilities at December 31, 2014 and 2013 are as follows:

	2014	2013
Deferred tax assets:		
Accrued postretirement benefits	$ 21	$ 23
Foreign tax credit	376	356
Operating and capital loss carryovers	334	350
Other credit carryovers	12	29
Accrued liabilities	67	70
Pension liability	29	47
Other	49	60
Total deferred tax assets	888	935
Deferred tax liabilities:		
Property, plant and equipment	114	117
Exchangeable notes		10
Intangibles	34	27
Other	41	65
Total deferred tax liabilities	189	219
Valuation allowance	(595)	(651)
Net deferred taxes	$ 104	$ 65

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Prepaid expenses	$ 34	$ 62
Other assets	203	235
Deferred taxes	(133)	(232)
Net deferred taxes	$ 104	$ 65

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis.

11. Income Taxes (Continued)

Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2014, before valuation allowance, the Company had unused foreign tax credits of $376 million expiring in 2017 through 2024, and research tax credit of $12 million expiring from 2019 to 2034, which will be available to offset future income tax. Approximately $174 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $160 million expiring between 2014 and 2035.

At December 31, 2014, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.9 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations and has not distributed any of these earnings to the U.S. in 2014, 2013 or 2012. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company is included in OI Inc.'s consolidated tax returns for U.S. federal and certain state income tax purposes. The consolidated group has net operating losses, capital losses, alternative minimum tax credits, foreign tax credits and research and development credits available to offset future U.S. Federal income tax. Income taxes are allocated to the Company on a basis consistent with separate returns.

The Company has recognized tax benefits as a result of incentives in certain non-U.S. jurisdictions which expire between 2015 and 2016.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2014, 2013 and 2012:

	2014	2013	2012
Balance at January 1	$100	$ 97	$125
Additions and reductions for tax positions of prior years	(13)	(3)	8
Additions based on tax positions related to the current year	10	9	7
Reductions due to the lapse of the applicable statute of limitations	(8)	(2)	(21)
Reductions due to settlements	(1)		(26)
Foreign currency translation	(11)	(1)	4
Balance at December 31	$ 77	$100	$ 97
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 70	$ 92	$ 89
Accrued interest and penalties at December 31	$ 29	$ 35	$ 33
Interest and penalties included in tax expense for the years ended December 31	$ (2)	$ 1	$ (6)

11. Income Taxes (Continued)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonable possible that the estimated liability could decrease up to $12 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Brazil, Canada, Germany, Indonesia, Italy and Peru. The years under examination range from 2005 through 2012. The Company believes that there are no jurisdictions in which the outcome of unresolved issues or claims is likely to be material to the Company's results of operations, financial position or cash flows. The Company further believes that adequate provisions for all income tax uncertainties have been made. During 2014, the Company concluded income tax audits in several jurisdictions, including Australia, Ecuador, Italy, and Poland.

12. External Debt

The following table summarizes the external long-term debt of the Company at December 31, 2014 and 2013:

	2014	2013
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A		
Term Loan B	405	405
Term Loan C (81 million CAD at December 31, 2014)	70	76
Term Loan D (€85 million at December 31, 2014)	103	117
Senior Notes:		
3.00%, Exchangeable, due 2015	18	617
7.375%, due 2016	596	593
6.75%, due 2020 (€500 million)	608	690
4.875%, due 2021 (€330 million)	401	455
5.00%, due 2022	494	
5.375%, due 2025	296	
Capital Leases	51	25
Other	30	20
Total long-term debt	3,072	2,998
Less amounts due within one year	361	15
Long-term debt	$2,711	$2,983

On May 19, 2011, the Company entered into the Secured Credit Agreement (the "Agreement"). At December 31, 2014, the Agreement included a $900 million revolving credit facility, a $405 million term

12. External Debt (Continued)

loan, an 81 million Canadian dollar term loan, and a €85 million term loan, each of which has a final maturity date of May 19, 2016. At December 31, 2014, the Company had unused credit of $804 million available under the Agreement.

The Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted junior payments, make certain asset sales within guidelines and limits, make capital expenditures beyond a certain threshold, engage in material transactions with shareholders and affiliates, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain outstanding debt obligations.

The Agreement also contains one financial maintenance covenant, a Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by Consolidated Adjusted EBITDA, as defined in the Agreement. The Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Leverage Ratio to exceed the specified maximum of 4.0x.

Failure to comply with these covenants and restrictions could result in an event of default under the Agreement. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Agreement and the lenders cause all of the outstanding debt obligations under the Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default or event of default under the Agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

The Leverage Ratio also determines pricing under the Agreement. The interest rate on borrowings under the Agreement is, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Agreement. These rates include a margin linked to the Leverage Ratio. The margins range from 1.25% to 2.00% for Eurocurrency Rate loans and from 0.25% to 1.00% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.25% to 0.50% per annum linked to the Leverage Ratio. The weighted average interest rate on borrowings outstanding under the Agreement at December 31, 2014 was 2.09%. As of December 31, 2014, the Company was in compliance with all covenants and restrictions in the Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Agreement will not be adversely affected by the covenants and restrictions.

Borrowings under the Agreement are secured by substantially all of the assets, excluding real estate, of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity in most of the Company's domestic subsidiaries and stock of certain foreign subsidiaries. All borrowings under the agreement are guaranteed by substantially all domestic subsidiaries of the Company for the term of the Agreement.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022. The Company also issued senior notes with a face

12. External Debt (Continued)

value of $300 million that bear interest at 5.375% and are due January 15, 2025. The New Senior Notes, which include both the senior notes due in 2022 and 2025, were issued via a private placement and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds from the New Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase in a tender offer $611 million aggregate principal amount of the Company's 3.00% exchangeable senior notes due June 1, 2015. Approximately $18 million of the exchangeable senior notes remain outstanding as of December 31, 2014. As part of the tender offer, the Company recorded $20 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in the fourth quarter of 2014.

During March 2013, the Company issued, in a private placement, senior notes with a face value of €330 million due March 31, 2021. The notes bear interest at 4.875% and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $418 million.

During March 2013, the Company discharged, in accordance with the indenture, all €300 million of its 6.875% senior notes due 2017. The Company recorded $11 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees.

The Company has a €215 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines. Information related to the Company's accounts receivable securitization program as of December 31, 2014 and 2013 is as follows:

	2014	2013
Balance (included in short-term loans)	$ 122	$ 276
Weighted average interest rate	1.41%	1.41%

Annual maturities for all of the Company's long-term debt through 2019 are as follows: 2015, $361 million; 2016, $882 million; 2017, $2 million; 2018, $3 million; and 2019, $3 million.

Fair values at December 31, 2014, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
7.375%, due 2016	$600	$106.70	$640
6.75%, due 2020 (€500 million)	608	118.85	723
4.875%, due 2021 (€330 million)	401	110.00	441
5.00%, due 2022	500	101.81	509
5.375%, due 2025	300	101.25	304

13. Contingencies

Certain litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are nonroutine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based including additional information, negotiations, settlements, and other events. The ultimate legal and financial liability of the Company in respect to this pending litigation cannot reasonably be estimated. However, the Company believes, based on its examination and review of such matters and experience to date, that such ultimate liability will not have a material adverse effect on its results of operations or financial condition.

The Company conducted an internal investigation into conduct in certain of its overseas operations that may have violated the anti-bribery provisions of the United States Foreign Corrupt Practices Act (the "FCPA"), the FCPA's books and records and internal controls provisions, the Company's own internal policies, and various local laws. In October 2012, the Company voluntarily disclosed these matters to the U.S. Department of Justice (the "DOJ") and the Securities and Exchange Commission (the "SEC").

On July 18, 2013, the Company received a letter from the DOJ indicating that it presently did not intend to take any enforcement action and is closing its inquiry into the matter.

The Company is presently unable to predict the duration, scope or result of an investigation by the SEC, if any, or whether the SEC will commence any legal action. The SEC has a broad range of civil sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, penalties, and modifications to business practices. The Company could also be subject to investigation and sanctions outside the United States. While the Company is currently unable to quantify the impact of any potential sanctions or remedial measures, it does not expect such actions will have a material adverse effect on the Company's liquidity, results of operations or financial condition.

The Company received a non-income tax assessment from a foreign tax authority for approximately $85 million (including penalties and interest). The Company challenged this assessment, but the tax authority's position was upheld in court. The case was heard by a higher court in November 2014, and on February 5, 2015, the Company was informed that the higher court had issued a unfavorable verdict. The Company strongly disagrees with this ruling, however, there are no further appeals available to the Company. The unfavorable ruling has resulted in a charge of $69 million. In order to contest the lower court rulings, legal rules required the Company to deposit the amount of the tax assessment, including penalties and interest. As of December 31, 2014, the Company has made installment payments totaling $76 million and a net refund of approximately $7 million is expected.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed

13. Contingencies (Continued)

and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

14. Accumulated Other Comprehensive Income

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Loss
Balance on January 1, 2013	$ 455	$(1)	$(402)	$ 52
Change before reclassifications	(226)	1	35	(190)
Amounts reclassified from accumulated other comprehensive income		1(a)	33(b)	34
Tax effect			(33)	(33)
Other comprehensive income attributable to the Company	(226)	2	35	(189)
Balance on December 31, 2013	$ 229	$ 1	$(367)	$(137)
Change before reclassifications	(284)	3	136	(145)
Amounts reclassified from accumulated other comprehensive income		(2)(a)	18(b)	16
Translation effect			(32)	(32)
Tax effect			(10)	(10)
Other comprehensive income attributable to the Company	(284)	1	112	(171)
Balance on December 31, 2014	$ (55)	$ 2	$(255)	$(308)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 8 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 10 for additional information).

15. Other Expense, net

Other expense, net for the year ended December 31, 2014, 2013, and 2012 included the following:

	2014	2013	2012
Non-income tax charge	$ 69	$ —	$ —
Restructuring, asset impairment and related charges	68	97	159
Charge for Argentina impairment		22	
Gain on China land compensation			(61)
Foreign currency exchange (gain) loss	(2)	9	8
Other expense (income)	3	(5)	(13)
	$138	$123	$ 93

In 2014, the Company recorded charges totaling $76 million for restructuring, asset impairment and related charges. These charges include $68 million recorded to other expense and $8 million recorded to cost of goods sold. See Note 9 for additional information.

16. Operating Leases

Rent expense attributable to all warehouse, office buildings, and equipment operating leases was $61 million in 2014, $53 million in 2013 and $69 million in 2012. Minimum future rentals under operating leases are as follows: 2015, $52 million; 2016, $44 million; 2017, $39 million; 2018, $33 million; 2019, $23 million; and 2020 and thereafter, $40 million.

17. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2014	2013	2012
Decrease (increase) in current assets:			
Receivables	$ 83	$ 19	$206
Inventories	(27)	(29)	(74)
Prepaid expenses	29	6	(1)
Increase (decrease) in current liabilities:			
Accounts payable and accrued liabilities	48	126	(83)
Salaries and wages	12	(5)	19
U.S. and foreign income taxes	13	7	(76)
	$158	$124	$ (9)

Interest paid in cash, including note repurchase premiums, aggregated $177 million for 2014, $185 million for 2013 and $223 million for 2012.

17. Supplemental Cash Flow Information (Continued)

Income taxes paid in cash were as follows:

	2014	2013	2012
U.S.	$ —	$ —	$ —
Non-U.S.	101	128	132
	$101	$128	$132

18. Discontinued Operations

The loss from discontinued operations of $4 million for the year ended December 31, 2014 represents ongoing costs related to the Venezuela expropriation.

The loss from discontinued operations of $10 million for the year ended December 31, 2013 represents ongoing costs related to the Venezuela expropriation.

The loss from discontinued operations of $2 million for the year ended December 31, 2012 included ongoing costs related to the Venezuelan expropriation.

19. Guarantees of Debt

OI Group and the Company guarantee OI Inc.'s senior debentures on a subordinated basis. The fair value of the OI Inc. debt being guaranteed was $281 at December 31, 2014.

20. Related Party Transactions

Charges for administrative services are allocated to the Company by OI Inc. based on an annual utilization level. Such services include compensation and benefits administration, payroll processing, use of certain general accounting systems, auditing, income tax planning and compliance, and treasury services.

Allocated costs also include charges associated with OI Inc.'s equity compensation plans. A substantial number of the options, restricted share units and performance vested restricted share units granted under these plans have been granted to key employees of another subsidiary of OI Inc., some of whose compensation costs, including stock-based compensation, are included in an allocation of costs to all operating subsidiaries of OI Inc., including the Company.

Management believes that such transactions are on terms no less favorable to the Company than those that could be obtained from unaffiliated third parties.

20. Related Party Transactions (Continued)

The following information summarizes the Company's significant related party transactions:

	Years ended December 31,		
	2014	2013	2012
Revenues:			
Sales to affiliated companies	$—	$—	$ —
Expenses:			
Administrative services	$ 2	$ 2	$ 3
Corporate management fee	75	80	115
Total expenses	$77	$82	$118

The above expenses are recorded in the results of operations as follows:

	Years ended December 31,		
	2014	2013	2012
Cost of goods sold	$—	$—	$ 1
Selling, general and adminstrative expenses	77	82	117
Total expenses	$77	$82	$118

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owner of
Owens-Brockway Glass Container Inc.

We have audited the accompanying consolidated balance sheets of Owens-Brockway Glass Container Inc. (the Company) as of December 31, 2014 and 2013, and the related consolidated statements of results of operations, comprehensive income, share owners' equity, and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Brockway Glass Container Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2015

Owens-Brockway Glass Container Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions

Years ended December 31,	2014	2013	2012
Net sales	$ 6,784	$ 6,967	$ 7,000
Cost of goods sold	(5,523)	(5,621)	(5,615)
Gross profit	1,261	1,346	1,385
Selling and administrative expense	(412)	(429)	(482)
Research, development and engineering expense	(63)	(62)	(62)
Equity earnings	64	67	64
Interest expense, net	(210)	(210)	(219)
Other expense, net	(138)	(123)	(93)
Earnings from continuing operations before income taxes	502	589	593
Provision for income taxes	(93)	(120)	(114)
Earnings from continuing operations	409	469	479
Loss from discontinued operations	(4)	(10)	(5)
Net earnings	405	459	474
Net earnings attributable to noncontrolling interests	(28)	(13)	(34)
Net earnings attributable to the Company	$ 377	$ 446	$ 440
Amounts attributable to the Company:			
Earnings from continuing operations	$ 381	$ 456	$ 445
Loss from discontinued operations	(4)	(10)	(5)
Net earnings	$ 377	$ 446	$ 440

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2014	2013	2012
Net earnings	$ 405	$ 459	$ 474
Other comprehensive income (loss):			
Foreign currency translation adjustments	(305)	(232)	(26)
Pension and other postretirement benefit adjustments, net of tax	112	35	(184)
Change in fair value of derivative instruments	1	2	5
Other comprehensive income (loss)	(192)	(195)	(205)
Total comprehensive income	213	264	269
Comprehensive income attributable to noncontrolling interests	(7)	(7)	(42)
Comprehensive income attributable to the Company	$ 206	$ 257	$ 227

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2014	2013
Assets		
Current assets:		
Cash, including time deposits of $103 ($61 in 2013)	$ 483	$ 356
Receivables	737	942
Inventories	1,035	1,117
Prepaid expenses	62	100
Total current assets	2,317	2,515
Other assets:		
Equity investments	427	315
Pension assets	22	22
Other assets	621	702
Goodwill	1,893	2,059
Total other assets	2,963	3,098
Property, plant and equipment:		
Land, at cost	221	249
Buildings and equipment, at cost:		
Buildings and building equipment	1,055	1,153
Factory machinery and equipment	4,296	4,646
Transportation, office and miscellaneous equipment	85	100
Construction in progress	160	212
Less accumulated depreciation	3,405	3,763
Net property, plant and equipment	2,412	2,597
Total assets	$7,692	$8,210

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions

December 31,	2014	2013
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable including amount to related parties of $7 ($1 in 2013)	$1,128	$1,132
Salaries and wages	135	155
U.S. and foreign income taxes	43	40
Other accrued liabilities	322	381
Short-term loans	127	306
Long-term debt due within one year	361	15
Total current liabilities	2,116	2,029
External long-term debt	2,711	2,983
Deferred taxes	133	232
Pension benefits	230	304
Nonpension postretirement benefits	78	86
Other liabilities	207	261
Share owners' equity:		
Investment by and advances from Parent	2,408	2,305
Accumulated other comprehensive income (loss)	(308)	(137)
Total share owner's equity of the Company	2,100	2,168
Noncontrolling interests	117	147
Total share owners' equity	2,217	2,315
Total liabilities and share owners' equity	$7,692	$8,210

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container Inc.
CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions	Share Owner's Equity of the Company		Non-controlling Interests	Total Share Owners' Equity
	Investment by and Advances from Parent	Accumulated Other Comprehensive Income (Loss)		
Balance on January 1, 2012	1,957	265	153	2,375
Net intercompany transactions	(255)			(255)
Net earnings	440		34	474
Other comprehensive income (loss)		(213)	8	(205)
Contribution from noncontrolling interests			3	3
Distributions to noncontrolling interests			(24)	(24)
Balance on December 31, 2012	2,142	52	174	2,368
Net intercompany transactions	(283)			(283)
Net earnings	446		13	459
Other comprehensive loss		(189)	(6)	(195)
Contribution from noncontrolling interests			5	5
Distributions to noncontrolling interests			(22)	(22)
Deconsolidation of subsidiary			(17)	(17)
Balance on December 31, 2013	2,305	(137)	147	2,315
Net intercompany transactions	(274)			(274)
Net earnings	377		28	405
Other comprehensive loss		(171)	(21)	(192)
Distributions to noncontrolling interests			(37)	(37)
Balance on December 31, 2014	$2,408	$(308)	$117	$2,217

See accompanying Notes to the Consolidated Financial Statements

Owens-Brockway Glass Container, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2014	2013	2012
Operating activities:			
Net earnings	$ 405	$ 459	$ 474
Loss from discontinued operations	4	10	5
Non-cash charges (credits):			
Depreciation	331	345	374
Amortization of intangibles and other deferred items	75	40	27
Amortization of finance fees and debt discount	20	32	33
Deferred tax benefit	(18)	(3)	(3)
Restructuring, asset impairment and related charges	76	119	159
Non-income tax charge	69		
Gain on China land compensation			(61)
Other	(91)	36	(58)
Cash paid for restructuring activities	(58)	(78)	(65)
Change in non-current assets and liabilities	(25)	(134)	(54)
Change in components of working capital	158	124	(9)
Cash provided by continuing operating activities	946	950	822
Cash utilized in discontinued operating activities	(4)	(10)	(5)
Total cash provided by operating activities	942	940	817
Investing activities:			
Additions to property, plant and equipment	(369)	(360)	(290)
Acquisitions, net of cash acquired	(113)	(4)	(5)
Net cash proceeds related to sale of assets and other	16	10	95
Net activity for non-controlling partner loans	9	(16)	(21)
Deconsolidation of subsidiary		(32)	
Cash utilized in investing activities	(457)	(402)	(221)
Financing activities:			
Additions to long-term debt	1,226	768	119
Repayments of long-term debt	(1,100)	(1,040)	(401)
Increase (decrease) in short-term loans	(139)	8	(38)
Net receipts from (distribution to) parent	(274)	(283)	(255)
Net foreign exchange derivative activity	(2)	(24)	27
Payment of finance fees	(11)	(7)	(1)
Contribution from noncontrolling interests		5	3
Distributions to noncontrolling interests	(37)	(22)	(24)
Cash utilized in financing activities	(337)	(595)	(570)
Effect of exchange rate fluctuations on cash	(21)	(7)	16
Increase (decrease) in cash	127	(64)	42
Cash at beginning of year	356	420	378
Cash at end of year	$ 483	$ 356	$ 420

See accompanying Notes to Consolidated Financial Statements.

Owens-Brockway Glass Container Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Tabular data dollars in millions

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Brockway Glass Container Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Relationship with Owens-Brockway Packaging, Inc., Owens-Illinois Group, Inc. and Owens-Illinois, Inc. The Company is a 100%-owned subsidiary of Owens-Brockway Packaging, Inc. ("OB Packaging"), and an indirect subsidiary of Owens-Illinois Group, Inc. ("OI Group") and Owens-Illinois, Inc. ("OI Inc."). Although OI Inc. does not conduct any operations, it has substantial obligations related to outstanding indebtedness and asbestos-related payments. OI Inc. relies primarily on distributions from its direct and indirect subsidiaries to meet these obligations.

For federal and certain state income tax purposes, the taxable income of the Company is included in the consolidated tax returns of OI Inc. and income taxes are allocated to the Company on a basis consistent with separate returns.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 21 countries. The principal markets and operations for the Company's products are in Europe, North America, South America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

1. Significant Accounting Policies (Continued)

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for

1. Significant Accounting Policies (Continued)

trading purposes and is not a party to leveraged derivatives. Cash flows from short-term forward exchange contracts not designated as hedges are classified as a financing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards In May 2014, the Financial Accounting Standards Board issued a new standards update "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new standard will become effective for the Company on January 1, 2017. Early application is not permitted. The Company is evaluating the effect this standard will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor determined the effect of the standard on its ongoing financial reporting.

Participation in OI Inc. Stock Option Plans and Other Stock Based Compensation The Company participates in the equity compensation plans of OI Inc. under which employees of the Company may be granted options to purchase common shares of OI Inc., restricted common shares of OI Inc., or restricted share units of OI Inc.

1. Significant Accounting Policies (Continued)

Stock Options

Options granted prior to March 22, 2005, all of which are exercisable, expire following termination of employment or the day after the tenth anniversary date of the option grant.

For options granted after March 21, 2005, no options may be exercised in whole or in part during the first year after the date granted. In general, subject to change in control, these options become exercisable 25% per year beginning on the first anniversary. In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

Restricted Shares and Restricted Share Units

Shares granted to employees prior to March 22, 2005, generally vest after three years or upon retirement, whichever is later. Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of OI Inc.'s common stock for each unit. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met.

The fair value of the restricted shares and restricted share units is equal to the market price of OI Inc.'s common stock on the date of the grant. The fair value of restricted shares granted before March 22, 2005, is amortized ratably over the vesting period. The fair value of restricted shares and restricted share units granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of OI Inc.'s common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of OI Inc.'s Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of OI Inc.'s common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

As discussed in Note 20, costs incurred under these plans by OI Inc. related to stock-based compensation awards granted directly to the Company's employees are included in the allocable costs charged to the Company and other operating subsidiaries of OI Inc. on an intercompany basis.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, South America and Asia Pacific. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Other. These include licensing, equipment manufacturing, global engineering, and non-glass equity investments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2014	2013	2012
Net sales:			
Europe	$2,794	$2,787	$2,717
North America	2,003	2,002	1,966
South America	1,159	1,186	1,252
Asia Pacific	793	966	1,028
Reportable segment totals	6,749	6,941	6,963
Other	35	26	37
Net sales	$6,784	$6,967	$7,000

	2014	2013	2012
Segment operating profit:			
Europe	$ 353	$ 305	$ 307
North America	240	307	288
South America	227	204	227
Asia Pacific	88	131	113
Reportable segment totals	908	947	935
Items excluded from segment operating profit:			
Other	(1)	(29)	(25)
Restructuring, asset impairment and other charges	(91)	(119)	(159)
Non-income tax charge	(69)		
Pension Settlement charges	(35)		
Gain on China land compensation			61
Interest expense, net	(210)	(210)	(219)
Earnings (loss) from continuing operations before income taxes	$ 502	$ 589	$ 593

2. Segment Information (Continued)

	Europe	North America	South America	Asia Pacific	Reportable Segment Totals	Other	Consolidated Totals
Total assets:							
2014	$3,224	$1,963	$1,300	$1,018	$7,505	$187	$7,692
2013	3,509	1,986	1,467	1,150	8,112	98	8,210
2012	3,362	1,986	1,655	1,349	8,352	106	8,458
Equity investments:							
2014	$ 81	$ 24	$ —	$ 153	$ 258	$169	$ 427
2013	84	25		155	264	51	315
2012	63	25		165	253	41	294
Equity earnings:							
2014	$ 19	$ 17	$ —	$ 4	$ 40	$ 24	$ 64
2013	17	16		10	43	24	67
2012	15	16		5	36	28	64
Capital expenditures:							
2014	$ 188	$ 89	$ 55	$ 34	$ 366	$ 3	$ 369
2013	130	100	80	36	346	14	360
2012	87	68	75	49	279	11	290
Depreciation and amortization expense:							
2014	$ 140	$ 131	$ 79	$ 53	$ 403	$ 3	$ 406
2013	139	110	72	62	383	2	385
2012	150	107	70	70	397	4	401

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2014	$678	$1,734	$2,412
2013	651	1,946	2,597
2012	624	2,106	2,730

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2014	$1,852	$4,932	$6,784
2013	1,809	5,158	6,967
2012	1,780	5,220	7,000

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2014—11%, 2013—11%, 2012—11%).

3. Receivables

Receivables consist of the following at December 31, 2014 and 2013:

	2014	2013
Trade accounts receivable	$584	$757
Less: allowances for doubtful accounts and discounts	33	38
Net trade receivables	551	719
Other receivables	186	223
	$737	$942

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2014 and 2013, the amount of receivables sold by the Company was $276 million and $192 million, respectively. Any continuing involvement with the sold receivables is immaterial.

4. Inventories

Major classes of inventory are as follows:

	2014	2013
Finished goods	$ 884	$ 958
Raw materials	110	113
Operating supplies	41	46
	$1,035	$1,117

5. Equity Investments

At December 31, 2014 the Company's ownership percentage in equity associates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50%	Glass container manufacturer
CO Vidrieria SARL	50%	Glass container manufacturer
Rocky Mountain Bottle Company	50%	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25%	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50%	Glass container manufacturer
Vetri Speciali SpA	50%	Speciality glass manufacturer

During the fourth quarter of 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. The Company has determined the accounting for the investment and returns as an equity joint venture.

During the fourth quarter of 2013, changes were made to the VeMe joint venture agreement that resulted in the Company relinquishing control of the joint venture and, therefore, deconsolidating the entity. No gain or loss was recognized related to the deconsolidation as the fair value of the entity was

5. Equity Investments (Continued)

equal to the carrying amount of the entity's assets and liabilities. The fair value, which the Company classified as Level 3 in the fair value hierarchy, was computed using a discounted cash flow analysis based on projected future cash flows of the joint venture.

Summarized information pertaining to the Company's equity associates follows:

	2014	2013	2012
Equity in earnings:			
Non-U.S.	$23	$27	$20
U.S.	41	40	44
Total	$64	$67	$64
Dividends received	$54	$67	$50

Summarized combined financial information for equity associates is as follows (unaudited):

	2014	2013
At end of year:		
Current assets	$ 479	$419
Non-current assets	718	528
Total assets	1,197	947
Current liabilities	217	224
Other liabilities and deferred items	191	193
Total liabilities and deferred items	408	417
Net assets	$ 789	$530

	2014	2013	2012
For the year:			
Net sales	$752	$699	$658
Gross profit	$198	$185	$191
Net earnings	$150	$149	$143

The Company purchased approximately $188 million and $133 million from equity affiliates in 2014 and 2013, respectively, and owed approximately $79 million and $42 million to equity affiliates as of December 31, 2014 and 2013, respectively.

There is a difference of approximately $9 million as of December 31, 2014 between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

6. Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2014, 2013 and 2012 are as follows:

	Europe	North America	South America	Other	Total
Balance as of January 1, 2012	983	740	354	5	2,082
Translation effects	23	3	(29)		(3)
Balance as of December 31, 2012	1,006	743	325	5	2,079
Translation effects	38	(9)	(49)		(20)
Balance as of December 31, 2013	1,044	734	276	5	2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	$ 926	$723	$239	$5	$1,893

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2014, 2013 and 2012.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2014, the Company completed its annual impairment testing and determined that no impairment existed.

7. Other Assets

Other assets consist of the following at December 31, 2014 and 2013:

	2014	2013
Deferred tax assets	$203	$235
Deferred returnable packaging costs	126	124
Repair part inventories	107	116
Non-income tax receivable	58	70
Capitalized software	37	39
Deferred finance fees	20	32
Intangibles	18	23
Other	52	63
	$621	$702

8. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2014 and 2013, the Company had entered into commodity forward contracts covering approximately 450,000 MM BTUs and 5,400,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2014 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized loss of less than $1 million at December 31, 2014 and an unrecognized gain of $1 million at December 31, 2013 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2014 and 2013 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2014, 2013 and 2012 is as follows:

Amount of Gain (Loss) recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of Gain (Loss) reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2014	2013	2012	2014	2013	2012
$3	$1	$(3)	$2	$(1)	$(8)

Foreign Exchange Derivative Contracts not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or

8. Derivative Instruments (Continued)

commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2014 and 2013, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $524 million and $550 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2014, 2013 and 2012 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2014	2013	2012
Other expense	$(8)	$(28)	$6

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year. The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2014 and 2013:

		Fair Value	
	Balance Sheet Location	2014	2013
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	a	$—	$1
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	a	10	3
Total asset derivatives		$10	$4
Liability Derivatives:			
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	c	4	7
Total liability derivatives		$ 4	$7

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations and reduce future expenses. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

Since 2011, the Company has implemented the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involves making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $1 million in 2014, $16 million in 2013 and $86 million in 2012 for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company expects to execute further actions under this program in phases over the next several years.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $73 million, $49 million and $47 million for the years ended 2014, 2013 and 2012, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities.

9. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities (Continued)

Other Restructuring Actions

The Company took certain other restructuring actions and recorded charges in 2014 of $2 million for employee costs related to global headcount reduction initiatives. In 2013, there were charges of $16 million for employee costs related to the closure of flat glass operations in South America, $13 million for employee costs related to global headcount reduction initiatives, and $3 million for miscellaneous other costs. In 2012, the Company recorded charges of $13 million for employee costs and asset impairments related to a decision to close a machine manufacturing facility in the U.S., $7 million for employee costs and asset impairments related to a decision to close a mold shop in South America and $15 million for miscellaneous other costs.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2013	53	6	62	121
2013 charges	16	49	32	97
Write-down of assets to net realizable value	(3)	(11)	(2)	(16)
Net cash paid, principally severance and related benefits	(37)	(16)	(25)	(78)
Pension charges transferred to other accounts		(6)		(6)
Other, including foreign exchange translation	1	(2)	(5)	(6)
Balance at December 31, 2013	30	20	62	112
2014 charges	1	73	2	76
Write-down of assets to net realizable value		(46)		(46)
Net cash paid, principally severance and related benefits	(12)	(20)	(26)	(58)
Pension charges transferred to other accounts		(7)		(7)
Other, including foreign exchange translation	(7)	(8)	(4)	(19)
Balance at December 31, 2014	$ 12	$ 12	$ 34	$ 58

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2014, the Company's estimates include approximately $28 million for severance and related benefits costs, $26 million for environmental remediation costs, and $4 million for other exit costs.

10. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company participates in OI Inc.'s defined benefit pension plans for a substantial number of employees located in the United States. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. OI Inc.'s policy is to fund pension plans such

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

that sufficient assets will be available to meet future benefit requirements. Independent actuaries determine pension costs for each subsidiary of OI Inc. included in the plans; however, accumulated benefit obligation information and plan assets pertaining to each subsidiary have not been separately determined. As such, the accumulated benefit obligation and the plan assets related to the pension plans for domestic employees have been retained by another subsidiary of OI Inc. Net expense to results of operations for the Company's allocated portion of the domestic pension costs amounted to $19 million in 2014, $48 million in 2013 and $20 million in 2012.

OI Inc. also sponsors several defined contribution plans for all salaried and hourly U.S. employees of the Company. Participation is voluntary and participants' contributions are based on their compensation. OI Inc. matches contributions of participants, up to various limits, in substantially all plans. OI Inc. charges the Company for its share of the match. The Company's share of the contributions to these plans amounted to $17 million in 2014, $13 million in 2013 and $14 million in 2012.

The Company also has defined benefit pension plans covering a substantial number of employees in several non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the non-U.S. pension plans benefit obligations for the year were as follows:

	2014	2013
Obligations at beginning of year	$1,866	$1,911
Change in benefit obligations:		
Service cost	23	33
Interest cost	69	72
Actuarial (gain) loss, including the effect of change in discount rates	131	(5)
Curtailment and plan amendment	(567)	(52)
Participant contributions	5	7
Benefit payments	(91)	(101)
Foreign currency translation	(125)	1
Net change in benefit obligations	(555)	(45)
Obligations at end of year	$1,311	$1,866

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The changes in the fair value of the non-U.S. pension plans' assets for the year were as follows:

	2014	2013
Fair value at beginning of year	$1,578	$1,527
Change in fair value:		
Actual gain on plan assets	188	61
Benefit payments	(91)	(101)
Employer contributions	28	92
Participant contributions	5	7
Settlements	(519)	
Foreign currency translation	(94)	(5)
Other	(1)	(3)
Net change in fair value of assets	(484)	51
Fair value at end of year	$1,094	$1,578

The funded status of the non-U.S. pension plans at year end was as follows:

	2014	2013
Plan assets at fair value	$1,094	$1,578
Projected benefit obligations	1,311	1,866
Plan assets less than projected benefit obligations	(217)	(288)
Items not yet recognized in pension expense:		
Actuarial loss	347	488
Prior service credit		(25)
	347	463
Net amount recognized	$ 130	$ 175

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Pension assets	$ 22	$ 22
Current pension liability, included with Other accrued liabilities	(9)	(6)
Pension benefits	(230)	(304)
Accumulated other comprehensive loss	347	463
Net amount recognized	$ 130	$ 175

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2014 and 2013 as follows (amounts are pretax):

	2014	2013
Current year actuarial loss	$ (23)	$ 28
Amortization of actuarial loss	(20)	(28)
Amortization of prior service credit	2	1
Curtailment and plan amendment	22	(52)
Settlement	(64)	(6)
	(83)	(57)
Translation	(32)	(5)
	$(115)	$(62)

The accumulated benefit obligation for all defined benefit pension plans was $1,234 million and $1,790 million at December 31, 2014 and 2013, respectively.

The components of the non-U.S. pension plans' net pension expense were as follows:

	2014	2013	2012
Service cost	$ 23	$ 33	$ 26
Interest cost	69	72	77
Expected asset return	(86)	(91)	(87)
Amortization:			
Actuarial loss	18	28	22
Prior service credit		(1)	
Net amortization	18	27	22
Net expense	$ 24	$ 41	$ 38

On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands. The non-U.S. pension expense excludes $3 million, $6 million and $11 million of pension settlement costs that were recorded in restructuring expense in 2014, 2013 and 2012, respectively.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2015:

Amortization:	
Actuarial loss	$16
Prior service cost	
Net amortization	$16

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds Fair Value of Plan Assets		Accumulated Benefit Obligation Exceeds Fair Value of Plan Assets	
	2014	2013	2014	2013
Projected benefit obligations	$1,049	$1,588	$1,049	$1,588
Accumulated benefit obligation	1,023	1,537	1,023	1,537
Fair value of plan assets	810	1,278	810	1,278

The weighted average assumptions used to determine benefit obligations were as follows:

	2014	2013
Discount rate	3.58%	4.14%
Rate of compensation increase	2.89%	3.31%

The weighted average assumptions used to determine net periodic pension costs were as follows:

	2014	2013	2012
Discount rate	4.14%	3.89%	4.75%
Rate of compensation increase	3.31%	3.08%	3.23%
Expected long-term rate of return on assets	7.23%	6.34%	6.24%

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2014, the Company's weighted average expected long-term rate of return on assets was 7.23% for the non-U.S. plans. In developing this assumption, the Company evaluated input from its third party pension plan asset managers, including their review of asset class return expectations and long-term inflation assumptions. The Company also considered its historical 10-year average return (through December 31, 2013), which was in line with the expected long-term rate of return assumption for 2014.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets for the U.S. plans are maintained in a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The following table sets forth by level, within the fair value hierarchy, the Company's pension plan assets at fair value as of December 31, 2013 and 2012:

	2014			2013			Target Allocation
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	
Cash and cash equivalents	$ 14	$ —	$—	$ 39	$ 6	$—	
Equity securities	343	200		387	210		45 - 55%
Debt securities	364	119	2	752	116	2	40 - 50%
Real estate		30	3			6	0 - 10%
Other		19		13	47		0 - 10%
Total assets at fair value	$721	$368	$ 5	$1,191	$379	$ 8	

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2014	2013
Beginning balance	$ 8	$ 18
Net increase (decrease)	(3)	(10)
Ending balance	$ 5	$ 8

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2014.

In order to maintain minimum funding requirements, the Company is required to make contributions to its non-U.S. defined benefit pension plans of approximately $20 million in 2015.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2015	$ 61
2016	63
2017	63
2018	65
2019	68
2020 - 2024	373

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

Postretirement Benefits Other Than Pensions

OI Inc. provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. Independent actuaries determine postretirement benefit costs for each subsidiary of OI Inc.; however, accumulated postretirement benefit obligation information pertaining to each subsidiary has not been separately determined. As such, the accumulated postretirement benefit obligation has been retained by another subsidiary of OI Inc.

The Company's net periodic postretirement benefit cost, as allocated by OI Inc., for domestic employees was $1 million, $3 million, and $6 million at December 31, 2014, 2013, and 2012, respectively.

The Company also has postretirement benefit plans covering substantially all employees in Canada. The following tables relate to the Company's postretirement benefit plans in Canada.

The changes in the postretirement benefit obligations for the year were as follows:

	2014	2013
Obligations at beginning of year	$90	$102
Change in benefit obligations:		
Service cost	1	1
Interest cost	4	4
Actuarial (gain) loss, including the effect of changing discount rates	(2)	(7)
Benefit payments	(3)	(4)
Foreign currency translation	(7)	(6)
Other	(2)	
Net change in benefit obligations	(9)	(12)
Obligations at end of year	$81	$ 90

The funded status of the postretirement benefit plans at year end was as follows:

	2014	2013
Postretirement benefit obligations	$(81)	$(90)
Items not yet recognized in net postretirement benefit cost:		
Actuarial loss	(3)	(2)
Net amount recognized	$(84)	$(92)

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (3)	$ (4)
Nonpension postretirement benefits	(78)	(86)
Accumulated other comprehensive loss	(3)	(2)
Net amount recognized	$(84)	$(92)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2014 and 2013 as follows (amounts are pretax):

	2014	2013
Current year actuarial (gain) loss	$(1)	$(7)

The components of the net postretirement benefit cost for the year were as follows:

	2014	2013	2012
Service cost	$1	$1	$1
Interest cost	4	4	4
Net postretirement benefit cost	$5	$5	$5

The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost were as follows:

	2014	2013	2012
Accumulated post retirement benefit obligation	3.75%	4.47%	3.89%
Net postretirement benefit cost	4.47%	3.89%	4.13%

The weighted average assumed health care cost trend rates at December 31 were as follows:

	2014	2013
Health care cost trend rate assumed for next year	5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2014	2014

10. Pension Benefit Plans and Other Postretirement Benefits (Continued)

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-Percentage-Point	
	Increase	Decrease
Effect on total of service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	14	(11)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2015	$ 3
2016	3
2017	3
2018	3
2019	3
2020 - 2024	18

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in each of the years 2014, 2013 and 2012. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

11. Income Taxes

The provision (benefit) for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2014	2013	2012
U.S.	$231	$340	$297
Non-U.S.	271	249	296
	$502	$589	$593

Discontinued operations	2014	2013	2012
U.S.	$—	$ —	$—
Non-U.S.	(4)	(10)	(5)
	$(4)	$(10)	$(5)

11. Income Taxes (Continued)

The provision (benefit) for income taxes consists of the following:

	2014	2013	2012
Current:			
U.S.	$ 8	$ 7	$ —
Non-U.S.	103	116	117
	111	123	117
Deferred:			
U.S.			10
Non-U.S.	(18)	(3)	(13)
	(18)	(3)	(3)
Total:			
U.S.	8	7	10
Non-U.S.	85	113	104
Total	$ 93	$120	$114

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2014	2013
Tax provision on pretax earnings (loss) from continuing operations at statutory U.S. Federal tax rate	$177	$206
Increase (decrease) in provision for income taxes due to:		
Differences in income taxes on foreign earnings, losses and remittances	(19)	(29)
Goodwill impairment		
U.S. tax consolidation benefit	(47)	(51)
Changes in valuation allowance	(12)	(1)
Tax audits and settlements	2	1
Other items	(8)	(6)
Provision for income taxes	$ 93	$120

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

11. Income Taxes (Continued)

Significant components of the Company's deferred tax assets and liabilities at December 31, 2014 and 2013 are as follows:

	2014	2013
Deferred tax assets:		
Accrued postretirement benefits	$ 21	$ 23
Foreign tax credit	376	356
Operating and capital loss carryovers	334	350
Other credit carryovers	12	29
Accrued liabilities	67	70
Pension liability	29	47
Other	49	60
Total deferred tax assets	888	935
Deferred tax liabilities:		
Property, plant and equipment	114	117
Exchangeable notes		10
Intangibles	34	27
Other	41	65
Total deferred tax liabilities	189	219
Valuation allowance	(595)	(651)
Net deferred taxes	$ 104	$ 65

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2014 and 2013 as follows:

	2014	2013
Prepaid expenses	$ 34	$ 62
Other assets	203	235
Deferred taxes	(133)	(232)
Net deferred taxes	$ 104	$ 65

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis.

11. Income Taxes (Continued)

Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2014, before valuation allowance, the Company had unused foreign tax credits of $376 million expiring in 2017 through 2024, and research tax credit of $12 million expiring from 2019 to 2034, which will be available to offset future income tax. Approximately $174 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $160 million expiring between 2014 and 2035.

At December 31, 2014, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.9 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations and has not distributed any of these earnings to the U.S. in 2014, 2013 or 2012. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company is included in OI Inc.'s consolidated tax returns for U.S. federal and certain state income tax purposes. The consolidated group has net operating losses, capital losses, alternative minimum tax credits, foreign tax credits and research and development credits available to offset future U.S. Federal income tax. Income taxes are allocated to the Company on a basis consistent with separate returns.

The Company has recognized tax benefits as a result of incentives in certain non-U.S. jurisdictions which expire between 2015 and 2016.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2014, 2013 and 2012:

	2014	2013	2012
Balance at January 1	$100	$ 97	$125
Additions and reductions for tax positions of prior years	(13)	(3)	8
Additions based on tax positions related to the current year	10	9	7
Reductions due to the lapse of the applicable statute of limitations	(8)	(2)	(21)
Reductions due to settlements	(1)		(26)
Foreign currency translation	(11)	(1)	4
Balance at December 31	$ 77	$100	$ 97
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 70	$ 92	$ 89
Accrued interest and penalties at December 31	$ 29	$ 35	$ 33
Interest and penalties included in tax expense for the years ended December 31	$ (2)	$ 1	$ (6)

11. Income Taxes (Continued)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonable possible that the estimated liability could decrease up to $12 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Brazil, Canada, Germany, Indonesia, Italy and Peru. The years under examination range from 2005 through 2012. The Company believes that there are no jurisdictions in which the outcome of unresolved issues or claims is likely to be material to the Company's results of operations, financial position or cash flows. The Company further believes that adequate provisions for all income tax uncertainties have been made. During 2014, the Company concluded income tax audits in several jurisdictions, including Australia, Ecuador, Italy, and Poland.

12. External Debt

The following table summarizes the external long-term debt of the Company at December 31, 2014 and 2013:

	2014	2013
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A		
Term Loan B	405	405
Term Loan C (81 million CAD at December 31, 2014)	70	76
Term Loan D (€85 million at December 31, 2014)	103	117
Senior Notes:		
3.00%, Exchangeable, due 2015	18	617
7.375%, due 2016	596	593
6.75%, due 2020 (€500 million)	608	690
4.875%, due 2021 (€330 million)	401	455
5.00%, due 2022	494	
5.375%, due 2025	296	
Capital Leases	51	25
Other	30	20
Total long-term debt	3,072	2,998
Less amounts due within one year	361	15
Long-term debt	$2,711	$2,983

On May 19, 2011, the Company entered into the Secured Credit Agreement (the "Agreement"). At December 31, 2014, the Agreement included a $900 million revolving credit facility, a $405 million term

12. External Debt (Continued)

loan, an 81 million Canadian dollar term loan, and a €85 million term loan, each of which has a final maturity date of May 19, 2016. At December 31, 2014, the Company had unused credit of $804 million available under the Agreement.

The Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted junior payments, make certain asset sales within guidelines and limits, make capital expenditures beyond a certain threshold, engage in material transactions with shareholders and affiliates, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain outstanding debt obligations.

The Agreement also contains one financial maintenance covenant, a Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by Consolidated Adjusted EBITDA, as defined in the Agreement. The Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Leverage Ratio to exceed the specified maximum of 4.0x.

Failure to comply with these covenants and restrictions could result in an event of default under the Agreement. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Agreement and the lenders cause all of the outstanding debt obligations under the Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default or event of default under the Agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

The Leverage Ratio also determines pricing under the Agreement. The interest rate on borrowings under the Agreement is, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Agreement. These rates include a margin linked to the Leverage Ratio. The margins range from 1.25% to 2.00% for Eurocurrency Rate loans and from 0.25% to 1.00% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.25% to 0.50% per annum linked to the Leverage Ratio. The weighted average interest rate on borrowings outstanding under the Agreement at December 31, 2014 was 2.09%. As of December 31, 2014, the Company was in compliance with all covenants and restrictions in the Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Agreement will not be adversely affected by the covenants and restrictions.

Borrowings under the Agreement are secured by substantially all of the assets, excluding real estate, of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity in most of the Company's domestic subsidiaries and stock of certain foreign subsidiaries. All borrowings under the agreement are guaranteed by substantially all domestic subsidiaries of the Company for the term of the Agreement.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022. The Company also issued senior notes with a face

12. External Debt (Continued)

value of $300 million that bear interest at 5.375% and are due January 15, 2025. The New Senior Notes, which include both the senior notes due in 2022 and 2025, were issued via a private placement and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds from the New Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase in a tender offer $611 million aggregate principal amount of the Company's 3.00% exchangeable senior notes due June 1, 2015. Approximately $18 million of the exchangeable senior notes remain outstanding as of December 31, 2014. As part of the tender offer, the Company recorded $20 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in the fourth quarter of 2014.

During March 2013, the Company issued, in a private placement, senior notes with a face value of €330 million due March 31, 2021. The notes bear interest at 4.875% and are guaranteed by substantially all of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $418 million.

During March 2013, the Company discharged, in accordance with the indenture, all €300 million of its 6.875% senior notes due 2017. The Company recorded $11 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees.

The Company has a €215 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines. Information related to the Company's accounts receivable securitization program as of December 31, 2014 and 2013 is as follows:

	2014	2013
Balance (included in short-term loans)	$ 122	$ 276
Weighted average interest rate	1.41%	1.41%

Annual maturities for all of the Company's long-term debt through 2019 are as follows: 2015, $361 million; 2016, $882 million; 2017, $2 million; 2018, $3 million; and 2019, $3 million.

Fair values at December 31, 2014, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
7.375%, 2016	$600	$106.70	$640
6.75%, due 2020 (€500 million)	608	118.85	723
4.875%, due 2021 (€330 million)	401	110.00	441
5.00%, due 2022	500	101.81	509
5.375%, due 2025	300	101.25	304

13. Contingencies

Certain litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are nonroutine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based including additional information, negotiations, settlements, and other events. The ultimate legal and financial liability of the Company in respect to this pending litigation cannot reasonably be estimated. However, the Company believes, based on its examination and review of such matters and experience to date, that such ultimate liability will not have a material adverse effect on its results of operations or financial condition.

The Company conducted an internal investigation into conduct in certain of its overseas operations that may have violated the anti-bribery provisions of the United States Foreign Corrupt Practices Act (the "FCPA"), the FCPA's books and records and internal controls provisions, the Company's own internal policies, and various local laws. In October 2012, the Company voluntarily disclosed these matters to the U.S. Department of Justice (the "DOJ") and the Securities and Exchange Commission (the "SEC").

On July 18, 2013, the Company received a letter from the DOJ indicating that it presently did not intend to take any enforcement action and is closing its inquiry into the matter.

The Company is presently unable to predict the duration, scope or result of an investigation by the SEC, if any, or whether the SEC will commence any legal action. The SEC has a broad range of civil sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, penalties, and modifications to business practices. The Company could also be subject to investigation and sanctions outside the United States. While the Company is currently unable to quantify the impact of any potential sanctions or remedial measures, it does not expect such actions will have a material adverse effect on the Company's liquidity, results of operations or financial condition.

The Company received a non-income tax assessment from a foreign tax authority for approximately $85 million (including penalties and interest). The Company challenged this assessment, but the tax authority's position was upheld in court. The case was heard by a higher court in November 2014, and on February 5, 2015, the Company was informed that the higher court had issued a unfavorable verdict. The Company strongly disagrees with this ruling, however, there are no further appeals available to the Company. The unfavorable ruling has resulted in a charge of $69 million. In order to contest the lower court rulings, legal rules required the Company to deposit the amount of the tax assessment, including penalties and interest. As of December 31, 2014, the Company has made installment payments totaling $76 million and a net refund of approximately $7 million is expected.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed

13. Contingencies (Continued)

and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

14. Accumulated Other Comprehensive Income

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Loss
Balance on January 1, 2013	$ 455	$(1)	$(402)	$ 52
Change before reclassifications	(226)	1	35	(190)
Amounts reclassified from accumulated other comprehensive income		1(a)	33(b)	34
Tax effect			(33)	(33)
Other comprehensive income attributable to the Company	(226)	2	35	(189)
Balance on December 31, 2013	$ 229	$ 1	$(367)	$(137)
Change before reclassifications	(284)	3	136	(145)
Amounts reclassified from accumulated other comprehensive income		(2)(a)	18(b)	16
Translation effect			(32)	(32)
Tax effect			(10)	(10)
Other comprehensive income attributable to the Company	(284)	1	112	(171)
Balance on December 31, 2014	$ (55)	$ 2	$(255)	$(308)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 8 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 10 for additional information).

15. Other Expense, net

Other expense, net for the year ended December 31, 2014, 2013, and 2012 included the following:

	2014	2013	2012
Non-income tax charge	$ 69	$ —	$ —
Restructuring, asset impairment and related charges	68	97	159
Charge for Argentina impairment		22	
Gain on China land compensation			(61)
Foreign currency exchange (gain) loss	(2)	9	8
Other expense (income)	3	(5)	(13)
	$138	$123	$ 93

In 2014, the Company recorded charges totaling $76 million for restructuring, asset impairment and related charges. These charges include $68 million recorded to other expense and $8 million recorded to cost of goods sold. See Note 9 for additional information.

16. Operating Leases

Rent expense attributable to all warehouse, office buildings, and equipment operating leases was $61 million in 2014, $53 million in 2013 and $69 million in 2012. Minimum future rentals under operating leases are as follows: 2015, $52 million; 2016, $44 million; 2017, $39 million; 2018, $33 million; 2019, $23 million; and 2020 and thereafter, $40 million.

17. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2014	2013	2012
Decrease (increase) in current assets:			
Receivables	$ 83	$ 19	$206
Inventories	(27)	(29)	(74)
Prepaid expenses	29	6	(1)
Increase (decrease) in current liabilities:			
Accounts payable and accrued liabilities	48	126	(83)
Salaries and wages	12	(5)	19
U.S. and foreign income taxes	13	7	(76)
	$158	$124	$ (9)

Interest paid in cash, including note repurchase premiums, aggregated $177 million for 2014, $185 million for 2013 and $223 million for 2012.

17. Supplemental Cash Flow Information (Continued)

Income taxes paid in cash were as follows:

	2014	2013	2012
U.S.	$ —	$ —	$ —
Non-U.S.	101	128	132
	$101	$128	$132

18. Discontinued Operations

The loss from discontinued operations of $4 million for the year ended December 31, 2014 represents ongoing costs related to the Venezuela expropriation.

The loss from discontinued operations of $10 million for the year ended December 31, 2013 represents ongoing costs related to the Venezuela expropriation.

The loss from discontinued operations of $2 million for the year ended December 31, 2012 included ongoing costs related to the Venezuelan expropriation.

19. Guarantees of Debt

OI Group and the Company guarantee OI Inc.'s senior debentures on a subordinated basis. The fair value of the OI Inc. debt being guaranteed was $281 at December 31, 2014.

20. Related Party Transactions

Charges for administrative services are allocated to the Company by OI Inc. based on an annual utilization level. Such services include compensation and benefits administration, payroll processing, use of certain general accounting systems, auditing, income tax planning and compliance, and treasury services.

Allocated costs also include charges associated with OI Inc.'s equity compensation plans. A substantial number of the options, restricted share units and performance vested restricted share units granted under these plans have been granted to key employees of another subsidiary of OI Inc., some of whose compensation costs, including stock-based compensation, are included in an allocation of costs to all operating subsidiaries of OI Inc., including the Company.

Management believes that such transactions are on terms no less favorable to the Company than those that could be obtained from unaffiliated third parties.

20. Related Party Transactions (Continued)

The following information summarizes the Company's significant related party transactions:

	Years ended December 31,		
	2014	2013	2012
Revenues:			
Sales to affiliated companies	$—	$—	$ —
Expenses:			
Administrative services	$ 2	$ 2	$ 3
Corporate management fee	75	80	115
Total expenses	$77	$82	$118

The above expenses are recorded in the results of operations as follows:

	Years ended December 31,		
	2014	2013	2012
Cost of goods sold	$—	$—	$ 1
Selling, general and adminstrative expenses	77	82	117
Total expenses	$77	$82	$118

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

OWENS-ILLINOIS, INC.

(Registrant)

By: /s/ JAMES W. BAEHREN

James W. Baehren
Attorney-in-fact

Date: February 10, 2015

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Owens-Illinois, Inc. and in the capacities and on the dates indicated.

Signatures	Title
Albert P. L. Stroucken	Chairman of the Board of Directors and Chief Executive Officer (Principal Executive Officer); Director
Stephen P. Bramlage, Jr.	Senior Vice President and Chief Financial Officer (Principal Financial Officer; Principal Accounting Officer)
Gary F. Colter	Director
Jay L. Geldmacher	Director
Peter S. Hellman	Director
Anastasia D. Kelly	Director
John J. McMackin, Jr.	Director
Hari N. Nair	Director
Hugh H. Roberts	Director
Helge H. Wehmeier	Director
Carol A. Williams	Director
Dennis K. Williams	Director
Thomas L. Young	Director

By: /s/ JAMES W. BAEHREN
James W. Baehren
Attorney-in-fact

Date: February 10, 2015

INDEX TO FINANCIAL STATEMENT SCHEDULE

Financial Statement Schedule of Owens-Illinois, Inc. and Subsidiaries:

For the years ended December 31, 2014, 2013, and 2012:

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OWENS-ILLINOIS, INC.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS (CONSOLIDATED)

Years ended December 31, 2014, 2013, and 2012
(Millions of Dollars)

Reserves deducted from assets in the balance sheets:

Allowances for losses and discounts on receivables

	Balance at beginning of period	Additions: Charged to costs and expenses	Additions: Other	Deductions (Note 1)	Balance at end of period
2014	$39	$15	$(12)	$(8)	$34
2013	$41	$11	$ (5)	$(8)	$39
2012	$38	$17	$ (5)	$(9)	$41

(1) Deductions from allowances for losses and discounts on receivables represent uncollectible notes and accounts written off.

Valuation allowance on net deferred tax assets

	Balance at beginning of period	Charged to income	Charged to other comprehensive income	Foreign currency translation	Other	Balance at end of period
2014	$ 990	$37	$ 55	$(15)	$(31)	$1,036
2013	$1,171	$37	$(187)	$ (7)	$(24)	$ 990
2012	$1,176	$(7)	$ (10)	$ 3	$ 9	$1,171

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EXHIBIT 12

OWENS-ILLINOIS, INC.
COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES
(Millions of dollars, except ratios)

	Years ended December 31,				
	2014	**2013**	**2012**	**2011**	**2010**
Earnings (loss) from continuing operations before income taxes	$218	$335	$328	$(396)	$426
Less: Equity earnings	(64)	(67)	(64)	(66)	(59)
Add: Total fixed charges deducted from earnings	238	242	257	320	260
Dividends received from equity investees	54	67	50	50	62
Earnings available for payment of fixed charges	$446	$577	$571	$ (92)	$689
Fixed charges (including the Company's proportional share of 50% owned associates):					
Interest expense	$235	$239	$248	$ 314	$249
Portion of operating lease rental deemed to be interest	3	3	9	6	11
Total fixed charges deducted from earnings	$238	$242	$257	$ 320	$260
Ratio of earnings to fixed charges	1.9	2.4	2.2		2.7
Deficiency of earnings available to cover fixed charges				$ 412	

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EXHIBIT 21

SUBSIDIARIES OF OWENS-ILLINOIS, INC.

Owens-Illinois, Inc. had the following subsidiaries at December 31, 2014 (subsidiaries are indented following their respective parent companies):

Name	State/Country of Incorporation or Organization
Owens-Illinois Group, Inc.	Delaware
OI General Finance Inc.	Delaware
OI General FTS Inc.	Delaware
OI Castalia STS Inc.	Delaware
OI Levis Park STS Inc.	Delaware
Owens-Illinois General Inc.	Delaware
Owens Insurance, Ltd.	Bermuda
Universal Materials, Inc.	Ohio
OI Advisors, Inc.	Delaware
OI Securities, Inc.	Delaware
OI Transfer, Inc.	Delaware
Maumee Air Associates Inc.	Delaware
OI Australia Inc.	Delaware
Continental PET Holdings Pty. Ltd.	Australia
ACI America Holdings Inc.	Delaware
ACI Ventures, Inc.	Delaware
Owens-Brockway Packaging, Inc.	Delaware
Owens-Brockway Glass Container Inc.	Delaware
OI Andover Group Inc.	Delaware
The Andover Group, Inc.	Delaware
Brockway Realty Corporation	Pennsylvania
NHW Auburn, LLC	Delaware
OI Auburn Inc.	Delaware
SeaGate, Inc.	Ohio
SeaGate II, Inc.	Ohio
SeaGate III, Inc.	Ohio
OIB Produvisa Inc.	Delaware
OI Puerto Rico STS Inc.	Delaware
O-I Caribbean Sales & Distibution Inc.	Delaware
O-I Latam HQ, Inc.	Delaware
Bolivian Investments, Inc.	Delaware
Fabrica Boliviana de Vidrios S.A.	Bolivia
OI International Holdings Inc.	Delaware
O-I Glass JV Mexico SARL	Luxembourg
O-I Holding LLC	Delaware
OI Global C.V.	Netherlands
OI Hungary LLC	Delaware
O-I Manufacturing Hungary Limited	Hungary
O-I Sales & Distribution Hungary Kft.	Hungary
O-I Ecuador LLC	Ohio
Cristaleria del Ecuador, S.A.	Ecuador
OI European Group B.V.	Netherlands
Owens-Illinois Singapore Pte. Ltd.	Singapore
OI China LLC	Delaware
Wuhan Owens Glass Container Company Limited	China

Name	State/Country of Incorporation or Organization
ACI Beijing Limited	Hong Kong
OI Tianjin Glass Co. Ltd.	China
Owens-Illinois Services H.K. Limited	Hong Kong
ACI Guangdong Limited	Hong Kong
ACI Guangdong Glass Company Limited	China
ACI Shanghai Limited	Hong Kong
ACI Shanghai Glass Company Limited	China
Owens-Illinois (HK) Limited	Hong Kong
O-I (Shanghai) Management Co Ltd.	China
O-I Zhaoqing Glass Co. Ltd.	China
O-I Sihui Glass Recycling Co. Ltd.	China
Owens-Illinois (Australia) Pty Ltd	Australia
ACI Packaging Services Pty Ltd	Australia
ACI Operations Pty. Ltd.	Australia
ACI International Pty Ltd	Australia
ACI Glass Packaging Penrith Pty Ltd	Australia
PT Kangar Consolidated Industries	Indonesia
ACI Operations NZ Limited	New Zealand
O-I Asia-Pacific Holdings	Mauritius
O-I Trading (Shanghai) Company Ltd.	China
O-I Sales and Distribution Netherlands B.V.	Netherlands
O-I Europe Sarl	Switzerland
O-I Sales and Distribution Italy S.r.l.	Italy
O-I Sales and Distribution UK Limited.	United Kingdom
O-I Sales and Distribution Poland Sp Z.o.o.	Poland
O-I Business Service Center Sp. Z.o.o.	Poland
O-I Manufacturing Poland S.A.	Poland
UGG Holdings Ltd.	United Kingdom
O-I Overseas Management Company Ltd.	Delaware
United Glass Group Ltd.	United Kingdom
O-I Manufacturing (UK) Limited	United Kingdom
O-I Sales and Distribution Spain SL	Spain
Vidrieria Rovira, S. L.	Spain
OI Spanish Holdings B.V.	Netherlands
Owens-Illinois Peru S. A.	Peru
O-I Manufacturing Italy S.p.A.	Italy
O-I Manufacturing Czech Republic A.S.	Czech Republic
O-I Sales and Distribution Czech Republic s.r.o.	Czech Republic
San Domenico Vetraria S.r.l.	Italy
O-I Manufacturing Netherlands B.V.	Netherlands
Veglarec B.V.	Netherlands
O-I Europe SAS	France
O-I Manufacturing France SAS	France
O-I Sales and Distribution France SAS	France
O-I Distribution SO	France
Champagne Emballage	France
O-I Glasspack Beteiligungs & Verwaltungsgesellschaft GmbH	Germany
OI Glasspack GmbH & Co. KG	Germany

Name	State/Country of Incorporation or Organization
O-I Sales and Distribution Germany GmbH	Germany
OI Canada Holdings B.V.	Netherlands
O-I Canada Corp.	Canada
Manufacturera de Vidrios Planos, C.A.	Venezuela
Owens-Illinois de Venezuela, C. A.	Venezuela
Fabrica de Vidrio Los Andes, C. A.	Venezuela
CMC S.A.	Colombia
O-I Latam Services S.A.S.	Colombia
Cristaleria Peldar, S.A.	Colombia
Cristar S.A.	Colombia
Industria de Materias Primas S.A.	Colombia
Vidrieria Fenicia	Colombia
Owens-Illinois do Brasil Industria e Comercio S.A.	Brazil
Mineracao Silminas Ltda.	Brazil
Mineracao Descalvado Ltda.	Brazil
OI Finnish Holdings Oy	Finland
O-I Sales and Distribution Finland OY	Finland
O-I Sales and Distribution LT	Lithuania
O-I Production Estonia AS	Estonia
O-I Sales and Distribution Estonia OU	Estonia
O-I GMEC Lurin srl	Peru
O-I Jaroslaw Machine Service Center	Poland
Owens-Illinois Argentina S.A.	Argentina

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DIRECTORS AND OFFICERS

Directors

Albert P. L. Stroucken
Chairman, President and Chief Executive Officer

Gary F. Colter
President of CRS Inc.

Jay L. Geldmacher
Chief Executive Officer, Artesyn Embedded Technologies

Peter S. Hellman
President and Chief Financial and Administrative Officer (retired), Nordson Corporation

Anastasia D. Kelly
Partner, DLA Piper

John J. McMackin, Jr.
Principal, Williams & Jensen, PLLC

Hari N. Nair
Chief Operating Officer (retired), Tenneco, Inc.

Hugh H. Roberts
President (retired), Kraft Foods International Commercial

Helge H. Wehmeier
President and Chief Executive Officer (retired), Bayer Corporation

Carol A. Williams
Special Advisor to the Chief Executive Officer (retired), Dow Chemical Company

Dennis K. Williams
Chairman of the Board (retired), IDEX Corporation

Thomas L. Young
President, Titus Holding Ltd.

Officers

Albert P. L. Stroucken
Chairman, President and Chief Executive Officer

Andres A. Lopez
President of Glass Containers and Chief Operating Officer

Stephen P. Bramlage, Jr.
Senior Vice President and Chief Financial Officer

James W. Baehren
Senior Vice President and General Counsel

Paul A. Jarrell
Senior Vice President and Chief Administrative Officer

Sergio B. O. Galindo
President O-I Asia Pacific

COMPANY INFORMATION

Exchange Listing
Owens-Illinois common stock (symbol OI) is listed on the New York Stock Exchange.

Transfer Agent for Common Stock
Computershare Trust Company, N.A.
P.O. Box 30170
College Station, TX 77842-3170

Private couriers and registered mail:
211 Quality Circle, Suite 210
College Station, TX 77845

Computershare website:
http://www.computershare.com
Phone: (781) 575-2724
Hearing-impaired: TDD 1-800-952-9245

Any inquiries regarding your account or certificates should be referred to Computershare Trust Company, N.A.

Trustees
U.S. Bank, N.A.
Global Corporate Trust Services
60 Livingston Avenue
EP-MN-WS3C
St. Paul, MN 55107-1419

3.00% Exchangeable Senior Notes, due 2015
7.375% Senior Notes, due 2016
5.00% Senior Notes, due 2022
5.375% Senior Notes, due 2025

The Bank of New York
101 Barclay Street
New York, NY 10286

7.80% Senior Debentures, due 2018

Deutsche Bank AG, London Branch
Trust and Agency Services
Winchester House
1 Great Winchester Street
London, England EC2N 2DB

6.75% Senior Notes, due 2020
4.875% Senior Notes, due 2021

Annual Meeting
The annual meeting of share owners will be held at 9:00 a.m. on Tuesday, May 12, 2015, in Plaza 2 of the O-I World Headquarters Campus, Perrysburg, OH.

Forms 10-K and 10-Q
The Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, filed with the Securities and Exchange Commission, may be obtained without charge by contacting:

Owens-Illinois, Inc.
Investor Relations
One Michael Owens Way
Perrysburg, OH 43551
Phone: (567) 336-2400

These reports are also available without charge on the Company's website at www.o-i.com

Website
For further information about O-I, visit the Company's website at www.o-i.com

Annual Certifications
The most recent certifications by the Chief Executive Officer and the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Company's Form 10-K. The Company has also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303.12(a) of the New York Stock Exchange Listed Company Manual.

Corporate Headquarters
Owens-Illinois, Inc.
One Michael Owens Way
Perrysburg, OH 43551

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10-K/A

YEAR ENDING **12.31.2015**

Owens-Illinois, Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D. C. 20549

FORM 10-K/A

(Amendment No. 1)

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended

December 31, 2015

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-9576

OWENS-ILLINOIS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**22-2781933**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
One Michael Owens Way, Perrysburg, Ohio	**43551**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(567) 336-5000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.01 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value (based on the consolidated tape closing price on June 30, 2015) of the voting and non-voting common equity held by non-affiliates of Owens-Illinois, Inc. was approximately $4,238,712,000. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the Company. Such interpretation is not intended to be, and should not be construed to be, an admission by Owens-Illinois, Inc. or such directors or executive officers of the Company that such directors and executive officers of the Company are "affiliates" of Owens-Illinois, Inc., as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value of Owens-Illinois, Inc. outstanding as of January 31, 2016 was 160,982,234.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Owens-Illinois, Inc. Proxy Statement for The Annual Meeting of Share Owners To Be Held Thursday, May 12, 2016 ("Proxy Statement"), which was filed with the Securities and Exchange Commission on April 1, 2016, are incorporated by reference into Part III hereof.

TABLE OF GUARANTORS

Exact Name of Registrant As Specified In Its Charter	State/Country of Incorporation or Organization	Primary Standard Industrial Classification Code Number	I.R.S Employee Identification Number
Owens-Illinois Group, Inc.	Delaware	6719	34-1559348
Owens-Brockway Packaging, Inc.	Delaware	6719	34-1559346

The address, including zip code, and telephone number, of each additional registrant's principal executive office is One Michael Owens Way, Perrysburg, Ohio 43551; (567) 336-5000. These companies are listed as guarantors of the debt securities of the registrant. The consolidating condensed financial statements of the Company depicting separately its guarantor and non-guarantor subsidiaries are presented in the notes to the consolidated financial statements. All of the equity securities of each of the guarantors set forth in the table above are owned, either directly or indirectly, by Owens-Illinois, Inc.

Explanatory Note

This Amendment No. 1 on Form 10-K/A ("Amendment No. 1") amends the Annual Report on Form 10-K of Owens-Illinois, Inc. (the “Company”) for the year ended December 31, 2015 as originally filed with the Securities and Exchange Commission (the “SEC”) on February 16, 2016 (the “Original Filing”).

This Amendment No. 1 amends the Original Filing to reflect the restatement of the Company’s audited financial statements for the years ended December 31, 2015, 2014 and 2013 in order to correct an error related to the Company’s method for estimating its future asbestos-related liabilities, as more fully described in Note 1 to the Consolidated Financial Statements contained in this Amendment No. 1. Additionally, conforming changes occur throughout this filing because of the changes to the consolidated financial statements. For ease of reference, this Amendment No. 1 amends and restates the Original Filing in its entirety. Revisions to the Original Filing have been made to the following sections:

- Part I, Item 1A - Risk Factors
- Part I, Item 1B - Unresolved Staff Comments
- Part II, Item 6 - Selected Financial Data
- Part II, Item 7 - Management’s Discussion and Analysis of Financial Condition and Results of Operations
- Part II, Item 8 - Financial Statements and Supplementary Data
- Part II, Item 9A - Controls and Procedures
- Part IV, Item 15 - Exhibits, Financial Statement Schedules

In addition, the Company’s principal executive officer and principal financial officer have provided new certifications dated as of the date of this filing in connection with this Amendment No. 1 (Exhibits 31.1, 31.2, 32.1 and 32.2).

Management assessed its evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2015 based on the framework established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management has concluded that the Company's internal control over financial reporting was not effective as of December 31, 2015. See Part II, Item 9A for further information.

Except as described above, no other amendments have been made to the Original Filing. This Amendment continues to speak as of the date of the Original Filing, and the Company has not updated the disclosure contained herein to reflect events that have occurred since the date of the Original Filing. Accordingly, this Amendment should be read in conjunction with the Company’s other filings made with the SEC subsequent to the filing of the Original Filing, including any amendments to those filings.

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PART I

ITEM 1. BUSINESS

General Development of Business

Owens-Illinois, Inc. (the "Company"), through its subsidiaries, is the successor to a business established in 1903. The Company is the largest manufacturer of glass containers in the world with 80 glass manufacturing plants in 23 countries. It competes in the glass container segment of the rigid packaging market and is the leading glass container manufacturer in most of the countries where it has manufacturing facilities.

Company Strategy

The Company's strategy is to be the premier rigid packaging producer most admired for its people, performance, customer satisfaction, innovation and shareholder value creation. To accomplish this strategy, the Company is focused on the following objectives:

- **Establish stability and drive improved performance** by acting in line with market dynamics and market trends while unlocking the value in the Company's operations and commercial activities;

- **Develop integrated solutions that deliver higher performance and grow our business** by leveraging the capabilities of the manufacturing, commercial, and supply chain disciplines to reduce costs and inventory while providing solutions that help the Company's customers build, develop and expand their markets;

- **Create breakthroughs** that include truly innovative products for our customers, as well as step change improvements to our cost structure through focused research and development;

- **Integrate the Vitro acquisition** to capture the value generated in this business while preserving the high operating standards; and

- **Operate as one enterprise,** aligning our organization, processes and talent by creating the right structure, processes and capabilities to drive for performance and meet investor expectations.

Reportable Segments

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015, the Company has renamed the former South America segment to the Latin America segment. Information as to sales, earnings from continuing operations before interest income, interest expense, and provision for income taxes and excluding amounts related to certain items that management considers not representative of ongoing operations ("segment operating profit"), and total assets by reportable segment is included in Note 2 to the Consolidated Financial Statements.

Products and Services

The Company produces glass containers for alcoholic beverages, including beer, flavored malt beverages, spirits and wine. The Company also produces glass packaging for a variety of food items, soft drinks, teas, juices and pharmaceuticals. The Company manufactures glass containers in a wide range of sizes, shapes and colors and is active in new product development and glass container innovation.

Customers

In most of the countries where the Company competes, it has the leading position in the glass container segment of the rigid packaging market based on sales revenue. The Company's largest customers consist mainly

of the leading global food and beverage manufacturers, including (in alphabetical order) Anheuser-Busch InBev, Brown Forman, Carlsberg, Diageo, Heineken, Kirin, MillerCoors, Nestle, PepsiCo, Pernod Ricard, SABMiller, and Saxco International. No customer represents more than 10% of the Company's consolidated net sales.

The Company sells most of its glass container products directly to customers under annual or multi-year supply agreements. Multi-year contracts typically provide for price adjustments based on cost changes. The Company also sells some of its products through distributors. Many customers provide the Company with regular estimates of their product needs, which enables the Company to schedule glass container production to maintain reasonable levels of inventory. Glass container manufacturing facilities are generally located in close proximity to customers.

Markets and Competitive Conditions

The Company's principal markets for glass container products are in Europe, North America, Latin America and Asia Pacific.

Europe. The Company has a leading share of the glass container segment of the rigid packaging market in the European countries in which it operates, with 35 glass container manufacturing plants located in the Czech Republic, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the United Kingdom. These plants primarily produce glass containers for the beer, wine, champagne, spirits and food markets in these countries. The Company also has interests in two joint ventures that manufacture glass containers in Italy. Throughout Europe, the Company competes directly with a variety of glass container manufacturers including Verallia, Ardagh Group, Vetropack and Vidrala.

North America. The Company has 19 glass container manufacturing plants and one distribution facility in the U.S. and Canada, and also has an interest in a joint venture that manufactures glass containers in the U.S. The Company has the leading share of the glass container segment of the U.S. rigid packaging market, based on sales revenue by domestic producers. The principal glass container competitors in the U.S. are the Ardagh Group and Anchor Glass Container. Imports from China, Mexico, Taiwan and other countries also compete in U.S. glass container segments. Additionally, there are several major consumer packaged goods companies that self-manufacture glass containers.

Latin America. The Company has 18 glass manufacturing plants in Latin America, located in Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, and Peru. In 2015, the Company's acquisition of the Vitro Business included six additional plants. In Latin America, the Company maintains a diversified portfolio serving several markets, including beer, non-alcoholic beverages, spirits, flavored malt beverages, wine, food and pharmaceuticals. The region also has a large infrastructure for returnable/refillable glass containers. The Company competes directly with Verallia in Brazil and Argentina, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region.

Asia Pacific. The Company has 8 glass container manufacturing plants in the Asia Pacific region, located in Australia, China, Indonesia and New Zealand. It also has interests in joint venture operations in China, Malaysia and Vietnam. In Asia Pacific, the Company primarily produces glass containers for the beer, wine, food and non-alcoholic beverage markets. The Company competes directly with Orora Limited in Australia, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region. In China, the glass container segments of the packaging market are regional and highly fragmented with a large number of local competitors.

In addition to competing with other large and well-established manufacturers in the glass container segment, the Company competes in all regions with manufacturers of other forms of rigid packaging, principally aluminum cans and plastic containers. Competition is based on quality, price, service, innovation and the marketing attributes of the container. The principal competitors producing metal containers include Ball Corporation, Crown Holdings, Inc., Rexam plc, and Silgan Holdings Inc. The principal competitors producing plastic containers include Amcor, Consolidated Container Holdings, LLC, Reynolds Group Holdings Limited, Plastipak Packaging, Inc. and Silgan Holdings Inc. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches, aseptic cartons and bag-in-box containers.

The Company seeks to provide products and services to customers ranging from large multinationals to small local breweries and wineries in a way that creates a competitive advantage for the Company. The Company believes that it is often the glass container partner of choice because of its innovation and branding capabilities, its global footprint and its expertise in manufacturing know-how and process technology.

Seasonality

Sales of many glass container products such as beer, beverages and food are seasonal. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater in the third and fourth quarters of the year.

Manufacturing

The Company has 80 glass manufacturing plants. It constantly seeks to improve the productivity of these operations through the systematic upgrading of production capabilities, sharing of best practices among plants and effective training of employees.

The Company also provides engineering support for its glass manufacturing operations through facilities located in the U.S., Australia, France, Poland, Colombia and Peru.

Suppliers and Raw Materials

The primary raw materials used in the Company's glass container operations are sand, soda ash, limestone and recycled glass. Each of these materials, as well as the other raw materials used to manufacture glass containers, has historically been available in adequate supply from multiple sources. One of the sources is a soda ash mining operation in Wyoming in which the Company has a 25% interest.

Energy

The Company's glass container operations require a continuous supply of significant amounts of energy, principally natural gas, fuel oil and electrical power. Adequate supplies of energy are generally available at all of the Company's manufacturing locations. Energy costs typically account for 10-25% of the Company's total manufacturing costs, depending on the cost of energy, the type of energy available, the factory location and the particular energy requirements. The percentage of total cost related to energy can vary significantly because of volatility in market prices, particularly for natural gas and fuel oil in volatile markets such as North America and Europe.

In North America, approximately 97% of the sales volume is represented by customer contracts that contain provisions that pass the commodity price of natural gas to the customer, effectively reducing the North America segment's exposure to changing natural gas market prices. Also, in order to limit the effects of fluctuations in market prices for natural gas, the Company uses commodity forward contracts related to its forecasted requirements in North America. The objective of these forward contracts is to reduce potential volatility in cash flows and expense due to changing market prices. The Company continually evaluates the energy markets with respect to its forecasted energy requirements to optimize its use of commodity forward contracts.

In Europe and Asia Pacific, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of one to three years. In Latin America, the Company primarily enters into fixed price contracts for its energy requirements in most of the countries in which it operates and the remaining energy requirements are subject to changing natural gas market prices. These fixed price contracts typically have terms of one to three years, and generally include annual price adjustments for inflation and for certain contracts price adjustments for foreign currency variation.

Technical Assistance License Agreements

The Company has agreements to license its proprietary glass container technology and to provide technical assistance to a limited number of companies around the world. These agreements cover areas related to

manufacturing and engineering assistance. The worldwide licensee network provides a stream of revenue to help support the Company's development activities. In the years 2015, 2014 and 2013, the Company earned $12 million, $13 million and $16 million, respectively, in royalties and net technical assistance revenue.

Research, Development and Engineering

Research, development and engineering constitute important parts of the Company's technical activities. Expenditures for these activities were $64 million, $63 million and $62 million for 2015, 2014 and 2013, respectively. The Company primarily focuses on advancements in the areas of product innovation, manufacturing process control, melting technology, automatic inspection, light-weighting and further automation of manufacturing activities. The Company's research and development activities are conducted at its corporate facilities in Perrysburg, Ohio. During 2013, the Company completed the construction of a new research and development facility at this location. This new facility has enabled the Company to expand its research and development capabilities.

The Company holds a large number of patents related to a wide variety of products and processes and has a substantial number of patent applications pending. While the aggregate of the Company's patents are of material importance to its businesses, the Company does not consider that any patent or group of patents relating to a particular product or process is of material importance when judged from the standpoint of any individual segment or its businesses as a whole.

Sustainability and the Environment

The Company is committed to reducing the impact its products and operations have on the environment. As part of this commitment, the Company has set targets for increasing the use of recycled glass in its manufacturing process, while reducing energy consumption and carbon dioxide equivalent ("CO_2") emissions. Specific actions taken by the Company include working with governments and other organizations to establish and financially support recycling initiatives, partnering with other entities throughout the supply chain to improve the effectiveness of recycling efforts, reducing the weight of glass packaging and investing in research and development to reduce energy consumption in its manufacturing process. The Company invests in technology and training to improve safety, reduce energy use, decrease emissions and increase the amount of cullet, or recycled glass, used in the production process.

The Company's worldwide operations, in addition to other companies within the industry, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. The Company strives to abide by and uphold such laws and regulations.

Glass Recycling and Bottle Deposits

The Company is an important contributor to recycling efforts worldwide and is among the largest users of recycled glass containers. If sufficient high-quality recycled glass were available on a consistent basis, the Company has the technology to make glass containers containing a high proportion of recycled glass. Using recycled glass in the manufacturing process reduces energy costs and impacts the operating life and efficiency of the glass melting furnaces.

In the U.S., Canada, Europe and elsewhere, government authorities have adopted or are considering legal requirements that would mandate certain recycling rates, the use of recycled materials, or limitations on or preferences for certain types of packaging. The Company believes that governments worldwide will continue to develop and enact legal requirements around guiding customer and end-consumer packaging choices.

Sales of beverage containers are affected by governmental regulation of packaging, including deposit laws and extended producer responsibility regulations. As of December 31, 2015, there were a number of U.S. states, Canadian provinces and territories, European countries and Australian states with some form of incentive for consumer returns of glass bottles in their law. The structure and enforcement of such laws and regulations can

impact the sales of beverage containers in a given jurisdiction. Such laws and regulations also impact the availability of post-consumer recycled glass for the Company to use in container production.

A number of states and provinces have recently considered or are now considering laws and regulations to encourage curbside, deposit and on-premise glass recycling. Although there is no clear trend in the direction of these state and provincial laws and proposals, the Company believes that states and provinces, as well as municipalities within those jurisdictions, will continue to adopt recycling laws, which will impact supplies of recycled glass. As a large user of recycled glass for making new glass containers, the Company has an interest in laws and regulations impacting supplies of such material in its markets.

Air Emissions

In Europe, the European Union Emissions Trading Scheme ("EUETS") is in effect to facilitate emissions reduction. The Company's manufacturing facilities which operate in EU countries must restrict the volume of their CO_2 emissions to the level of their individually allocated emissions allowances as set by country regulators. If the actual level of emissions for any facility exceeds its allocated allowance, additional allowances can be bought to cover deficits; conversely, if the actual level of emissions for any facility is less than its allocation, the excess allowances can be sold. The EUETS has not had a material effect on the Company's results to date. However, should the regulators significantly restrict the number of emissions allowances available, it could have a material effect in the future.

In North America, the U.S. and Canada are engaged in significant legislative and regulatory activity relating to CO_2 emissions, at the federal, state and provincial levels of government. The U.S. Environmental Protection Agency ("EPA") regulates emissions of hazardous air pollutants under the Clean Air Act, which grants the EPA authority to establish limits for certain air pollutants and to require compliance, levy penalties and bring civil judicial action against violators. The structure and scope of the EPA's CO_2 regulations are currently the subject of litigation and are expected to be the subject of federal legislative activity. The EPA regulations, if preserved as proposed, could have a significant long-term impact on the Company's U.S. operations. The EPA also implemented the Cross-State Air Pollution Rule, which set stringent emissions limits in many states starting in 2012. The state of California in the U.S. and the province of Quebec in Canada adopted cap-and-trade legislation aimed at reducing greenhouse gas emissions starting in 2013.

In Asia Pacific, the *National Greenhouse and Energy Reporting Act 2007* commenced on July 1, 2008 in Australia. This act established a mandatory reporting system for corporate greenhouse gas emissions and energy production and consumption. In 2011, the Australian government adopted a carbon pricing mechanism that took effect in 2012, which required certain manufacturers to pay a tax based on their carbon-equivalent emissions. In July 2014 the carbon pricing mechanism was repealed by the Australian government and replaced by the Emissions Reduction Fund ("ERF") which comprises an element to credit emissions reductions, a fund to purchase emissions reductions and a safeguard mechanism. The ERF purchases the lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions, while the safeguard mechanism (which is effective from July 1, 2016) ensures that emissions reductions paid for through the crediting and purchasing elements of the ERF are not displaced by significant increases in emissions above business-as-usual levels elsewhere in the economy. An emissions trading scheme has also been in effect in New Zealand since 2008.

In Latin America, the Brazilian government passed a law in 2009 requiring companies to reduce the level of greenhouse gas emissions by the year 2025. In the other Latin American countries, national and local governments are considering proposals that would impose regulations to reduce CO_2 emissions.

The Company is unable to predict what environmental legal requirements may be adopted in the future. However, the Company continually monitors its operations in relation to environmental impacts and invests in environmentally friendly and emissions-reducing projects. As such, the Company has made significant expenditures for environmental improvements at certain of its facilities over the last several years; however, these expenditures did not have a material adverse effect on the Company's results of operations or cash flows. The Company is unable to predict the impact of future environmental legal requirements on its results of operations or cash flows.

Employees

The Company's worldwide operations employed approximately 27,000 persons as of December 31, 2015. Approximately 75% of North American employees are hourly workers covered by collective bargaining agreements. The principal collective bargaining agreement, which at December 31, 2015, covered approximately 76% of the Company's union-affiliated employees in North America, will expire on March 31, 2016. Approximately 85% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. The Company considers its employee relations to be good and does not anticipate any material work stoppages in the near term.

Available Information

The Company's website is www.o-i.com. The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 can be obtained from this site at no cost. The Company's SEC filings are also available for reading and copying at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company's Corporate Governance Guidelines, Code of Business Conduct and Ethics and the charters of the Audit, Compensation, Nominating/Corporate Governance and Risk Oversight Committees are also available on the Investor Relations section of the Company's website. Copies of these documents are available in print to share owners upon request, addressed to the Corporate Secretary at the address above.

Executive Officers of the Registrant

In the following table the Company sets forth certain information regarding those persons currently serving as executive officers of Owens-Illinois, Inc. as of February 16, 2016.

Name and Age	Position
Andres A. Lopez (53)	Chief Executive Officer since January 1, 2016; President, Glass Containers and Chief Operating Officer 2015; Vice President and President of O-I Americas 2014-2015; Vice President and President of O-I South America 2009-2014; Vice President of Global Manufacturing and Engineering 2006-2009.
Albert P. L. Stroucken (68)	Executive Chairman of the Board since January 1, 2016; Chairman and Chief Executive Officer 2006 - 2015. Previously Chief Executive Officer of HB Fuller Company, a manufacturer of adhesives, sealants, coatings, paints and other specialty chemical products 1998 – 2006; Chairman of HB Fuller Company 1999 – 2006.
Miguel Alvarez (51)	President, O-I Latin America since 2014; President, O-I Brazil 2010 – 2014. Previously held leadership positions in Chile, Argentina and Ecuador for Belcorp, a leading global beauty products company 2005 – 2010.
James W. Baehren (65). . .	Senior Vice President and General Counsel since 2003; Senior Vice President Strategic Planning 2006-2012; Chief Administrative Officer 2004-2006; Corporate Secretary 1998-2010; Vice President and Director of Finance 2001-2003.
Jan A. Bertsch (59)	Chief Financial Officer and Senior Vice President since November 23, 2015. Previously Executive Vice President and Chief Financial Officer for Sigma-Aldrich, a life science and technology company, 2012 - 2015. Vice President, Controller and Principal Accounting Officer at BorgWarner 2011 – 2012; Vice President and Treasurer, 2009 - 2011.
Tim Connors (41)	President, O-I Asia Pacific since June 1, 2015; General Manager of O-I Australia 2013 – 2015; Vice President of Finance, Asia Pacific 2011 – 2013; Vice President of Strategic Planning and Business Development, North America 2010 – 2011.
Sergio B. O. Galindo (48).	President, O-I North America since June 1, 2015; Vice President and President of O-I Asia Pacific 2012 - 2015; General Manager of O-I Colombia 2009- 2012.
John A. Haudrich (48). . . .	Senior Vice President and Chief Strategy and Integration Officer since November 20, 2015; Vice President and Acting Chief Financial Officer 2015; Vice President Finance and Corporate Controller 2011 – 2015; Vice President of Investor Relations 2009 – 2011.
Paul A. Jarrell (53)	Senior Vice President since 2011; Chief Administrative Officer since 2013; Chief Human Resources Officer 2011- 2012. Previously Executive Vice President and Chief Human Resources Officer for DSM, a life sciences and materials company based in The Netherlands, 2009-2011; Vice President and Director of Human Resources for ITT, a fluid technologies and engineered products company, 2006-2009.
Vitaliano Torno (57)	President, O-I Europe since January 1, 2016; Managing Director, O-I Europe 2015; Vice President, European countries 2013 – 2015; Vice President, Marketing and sales, Europe 2010 - 2013.

Financial Information about Foreign and Domestic Operations

Information as to net sales, segment operating profit, and assets of the Company's reportable segments is included in Note 2 to the Consolidated Financial Statements.

ITEM 1A. RISK FACTORS

Asbestos-Related Liability—The Company has made, and will continue to make, substantial payments to resolve claims of persons alleging exposure to asbestos-containing products and may need to record additional charges in the future for estimated asbestos-related costs. These substantial payments have affected and may continue to affect the Company's cost of borrowing and the ability to pursue acquisitions.

The following discussion should be read together with the Consolidated Financial Statements and related Notes thereto and other financial information appearing elsewhere in this Form 10-K/A. All of the financial information presented in this risk factor has been revised to reflect the restatement more fully described in Note 1 to the Consolidated Financial Statements.

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company exited the insulation business in April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory, and in some cases, punitive damages, in various amounts (herein referred to as "asbestos claims").

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2015, before insurance recoveries, for its asbestos-related liability. The Company's ability to estimate its liability has been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

As described in Note 1 to the Consolidated Financial Statements, the Company recently revised its method for estimating its asbestos-related liabilities in connection with finalizing and reporting its restated results of operations for the years ended December 31, 2015 and 2014 and concluded that an accrual in the amount of $817 million and $939 million, respectively was required. The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its future annual comprehensive legal reviews, the Company will estimate its total asbestos-related liability and such reviews may result in significant adjustments to the liability accrued at the time of the review.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

The ultimate amount of distributions that may be required to fund the Company's asbestos-related payments cannot be estimated with certainty. Asbestos-related payments continue to be substantial and the continued use of significant amounts of cash for asbestos-related costs has affected and may continue to affect the Company's cost

of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

Substantial Leverage—The Company's indebtedness could adversely affect the Company's financial health.

The Company has a significant amount of debt. As of December 31, 2015, the Company had approximately $5.6 billion of total debt outstanding, an increase from $3.4 billion at December 31, 2014, due to additional debt incurred as a result of the Vitro Acquisition.

The Company's indebtedness could result in the following consequences:

- Increased vulnerability to general adverse economic and industry conditions;
- Increased vulnerability to interest rate increases for the portion of the debt under the secured credit agreement;
- Require the Company to dedicate a substantial portion of cash flow from operations to payments on indebtedness, thereby reducing the availability of cash flow to fund working capital, capital expenditures, acquisitions, share repurchases, development efforts and other general corporate purposes;
- Limit flexibility in planning for, or reacting to, changes in the Company's business and the rigid packaging market;
- Place the Company at a competitive disadvantage relative to its competitors that have less debt; and
- Limit, along with the financial and other restrictive covenants in the documents governing indebtedness, among other things, the Company's ability to borrow additional funds

Ability to Service Debt—To service its indebtedness, the Company will require a significant amount of cash. The Company's ability to generate cash and refinance certain indebtedness depends on many factors beyond its control.

The Company's ability to make payments on and to refinance its indebtedness and to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes depends on its ability to generate cash in the future. The Company has no assurance that it will generate sufficient cash flow from operations, or that future borrowings will be available under the secured credit agreement, in an amount sufficient to enable the Company to pay its indebtedness, or to fund other liquidity needs. If short term interest rates increase, the Company's debt service cost will increase because some of its debt is subject to short term variable interest rates. At December 31, 2015, the Company's debt subject to variable interest rates represented approximately 46% of total debt.

The Company may need to refinance all or a portion of its indebtedness on or before maturity. If the Company is unable to generate sufficient cash flow and is unable to refinance or extend outstanding borrowings on commercially reasonable terms or at all, it may have to take one or more of the following actions:

- Reduce or delay capital expenditures planned for replacements, improvements and expansions;
- Sell assets;
- Restructure debt; and/or
- Obtain additional debt or equity financing.

The Company can provide no assurance that it could affect or implement any of these alternatives on satisfactory terms, if at all.

Debt Restrictions—The Company may not be able to finance future needs or adapt its business plans to changes because of restrictions placed on it by the secured credit agreement and the indentures and instruments governing other indebtedness.

The secured credit agreement, the indentures governing the senior debentures and notes, and certain of the agreements governing other indebtedness contain affirmative and negative covenants that limit the ability of the Company to take certain actions. For example, these indentures restrict, among other things, the ability of the Company and its restricted subsidiaries to borrow money, pay dividends on, or redeem or repurchase its stock, make investments, create liens, enter into certain transactions with affiliates and sell certain assets or merge with or into other companies. These restrictions could adversely affect the Company's ability to operate its businesses and may limit its ability to take advantage of potential business opportunities as they arise.

Failure to comply with these or other covenants and restrictions contained in the secured credit agreement, the indentures or agreements governing other indebtedness could result in a default under those agreements, and the debt under those agreements, together with accrued interest, could then be declared immediately due and payable. If a default occurs under the secured credit agreement, the Company could no longer request borrowings under the secured credit agreement, and the lenders could cause all of the outstanding debt obligations under such secured credit agreement to become due and payable, which would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default under the secured credit agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

Foreign Currency Exchange Rates—The Company is subject to the effects of fluctuations in foreign currency exchange rates, which could adversely impact the Company's financial results.

The Company's reporting currency is the U.S. dollar. A significant portion of the Company's net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the Euro, Brazilian real, Colombian peso, Mexican peso and Australian dollar. In its consolidated financial statements, the Company remeasures transactions denominated in a currency other than the functional currency of the reporting entity (e.g. soda ash purchases) and translates local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

International Operations—The Company is subject to risks associated with operating in foreign countries.

The Company operates manufacturing and other facilities throughout the world. Net sales from non-U.S. operations totaled approximately $4.2 billion, representing approximately 69% of the Company's net sales for the year ended December 31, 2015. As a result of its non-U.S. operations, the Company is subject to risks associated with operating in foreign countries, including:

- Political, social and economic instability;
- War, civil disturbance or acts of terrorism;
- Taking of property by nationalization or expropriation without fair compensation;
- Changes in governmental policies and regulations;
- Devaluations and fluctuations in currency exchange rates;
- Imposition of limitations on conversions of foreign currencies into dollars or remittance of dividends and other payments by foreign subsidiaries;
- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;

- Hyperinflation in certain foreign countries;
- Impositions or increase of investment and other restrictions or requirements by foreign governments;
- Loss or non-renewal of treaties or other agreements with foreign tax authorities;
- Changes in tax laws, or the interpretation thereof, affecting foreign tax credits or tax deductions relating to our non-U.S. earnings or operations; and
- Complying with the U.S. Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from engaging in bribery or other prohibited payments to foreign officials for the purposes of obtaining or retaining business or gaining an unfair business advantage and requires companies to maintain accurate books and records and internal controls.

The risks associated with operating in foreign countries may have a material adverse effect on operations.

Competition—The Company faces intense competition from other glass container producers, as well as from makers of alternative forms of packaging. Competitive pressures could adversely affect the Company's financial health.

The Company is subject to significant competition from other glass container producers, as well as from makers of alternative forms of packaging, such as aluminum cans and plastic containers. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches and aseptic cartons, in serving the packaging needs of certain end-use markets, including juice customers. The Company competes with each rigid packaging competitor on the basis of price, quality, service and the marketing and functional attributes of the container. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing suppliers and/or using an alternative form of packaging. The adverse effects of consumer purchasing decisions may be more significant in periods of economic downturn and may lead to longer term reductions in consumer spending on glass packaged products.

Pressures from competitors and producers of alternative forms of packaging have resulted in excess capacity in certain countries in the past and have led to capacity adjustments and significant pricing pressures in the rigid packaging market.

Lower Demand Levels—Changes in consumer preferences may have a material adverse effect on the Company's financial results.

Changes in consumer preferences for the food and beverages they consume can reduce demand for the Company's products. Because many of the Company's products are used to package consumer goods, the Company's sales and profitability could be negatively impacted by changes in consumer preferences for those products. Examples of changes in consumer preferences include, but are not limited to, lower sales of major domestic beer brands and shifts from beer to wine or spirits that results in the use of fewer glass containers. In periods of lower demand, the Company's sales and production levels may decrease causing a material adverse effect on the Company's profitability.

High Energy Costs—Higher energy costs worldwide and interrupted power supplies may have a material adverse effect on operations.

Electrical power, natural gas, and fuel oil are vital to the Company's operations as it relies on a continuous energy supply to conduct its business. Depending on the location and mix of energy sources, energy accounts for 10% to 25% of total production costs. Substantial increases and volatility in energy costs could cause the Company to experience a significant increase in operating costs, which may have a material adverse effect on operations.

Global Economic Environment—The global credit, financial and economic environment could have a material adverse effect on operations and financial condition.

The global credit, financial and economic environment could have a material adverse effect on operations, including the following:

- Downturns in the business or financial condition of any of the Company's customers or suppliers could result in a loss of revenues or a disruption in the supply of raw materials;
- Tightening of credit in financial markets could reduce the Company's ability, as well as the ability of the Company's customers and suppliers, to obtain future financing;
- Volatile market performance could affect the fair value of the Company's pension assets and liabilities, potentially requiring the Company to make significant additional contributions to its pension plans to maintain prescribed funding levels;
- The deterioration of any of the lending parties under the Company's revolving credit facility or the creditworthiness of the counterparties to the Company's derivative transactions could result in such parties' failure to satisfy their obligations under their arrangements with the Company; and
- A significant weakening of the Company's financial position or results of operations could result in noncompliance with the covenants under the Company's indebtedness.

Business Integration Risks—The Company may not be able to effectively integrate additional businesses it has acquired or will acquire in the future.

The Company's ability to realize the anticipated benefits of the Vitro Acquisition will depend, to a large extent, on its ability to integrate the two businesses. The combination of two independent businesses is a complex, costly and time-consuming process and there can be no assurance that the Company will be able to successfully integrate the Vitro Business into its business, or if such integration is successfully accomplished, that such integration will not be more costly or take longer than presently contemplated. Integration of the Vitro Acquisition may include various risks and uncertainties, including the factors discussed in the paragraph below. If the Company cannot successfully integrate and manage the Vitro Business within a reasonable time following the Vitro Acquisition, the Company may not be able to realize the potential and anticipated benefits of the Vitro Acquisition, which could have a material adverse effect on the Company's share price, business, cash flows, results of operations and financial position.

The Company may also consider other strategic transactions, including acquisitions that will complement, strengthen and enhance growth in its worldwide glass operations. The Company evaluates opportunities on a preliminary basis from time to time, but these transactions may not advance beyond the preliminary stages or be completed. Such acquisitions are subject to various risks and uncertainties, including:

- The inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which are located in diverse geographic regions) and achieve expected synergies;
- The potential disruption of existing business and diversion of management's attention from day-to-day operations;
- The inability to maintain uniform standards, controls, procedures and policies;
- The need or obligation to divest portions of the acquired companies;
- The potential impairment of relationships with customers;
- The potential failure to identify material problems and liabilities during due diligence review of acquisition targets;
- The potential failure to obtain sufficient indemnification rights to fully offset possible liabilities associated with acquired businesses; and
- The challenges associated with operating in new geographic regions.

In addition, the Company cannot make assurances that the integration and consolidation of newly acquired businesses will achieve any anticipated cost savings and operating synergies.

Customer Consolidation—The continuing consolidation of the Company's customer base may intensify pricing pressures and have a material adverse effect on operations.

Many of the Company's largest customers have acquired companies with similar or complementary product lines. This consolidation has increased the concentration of the Company's business with its largest customers. In many cases, such consolidation has been accompanied by pressure from customers for lower prices, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Increased pricing pressures from the Company's customers may have a material adverse effect on operations.

Operational Disruptions—Profitability could be affected by unanticipated operational disruptions.

The Company's glass container manufacturing process is asset intensive and includes the use of large furnaces and machines. The Company periodically experiences unanticipated disruptions to its assets and these events can have an adverse effect on its business operations and profitability. The impacts of these operational disruptions include, but are not limited to, higher maintenance, production changeover and shipping costs, higher capital spending, as well as lower absorption of fixed costs during periods of extended downtime. The Company maintains insurance policies in amounts and with coverage and deductibles that are reasonable and in line with industry standards; however, this insurance coverage may not be adequate to protect the Company from all liabilities and expenses that may arise.

Seasonality—Profitability could be affected by varied seasonal demands.

Due principally to the seasonal nature of the consumption of beer and other beverages, for which demand is stronger during the summer months, sales of the Company's products have varied and are expected to vary by quarter. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater in the third and fourth quarters of the year. Unseasonably cool weather during peak demand periods can reduce demand for certain beverages packaged in the Company's containers.

Raw Materials—Profitability could be affected by the availability of raw materials.

The raw materials that the Company uses have historically been available in adequate supply from multiple sources. For certain raw materials, however, there may be temporary shortages due to weather or other factors, including disruptions in supply caused by raw material transportation or production delays. These shortages, as well as material volatility in the cost of any of the principal raw materials that the Company uses, may have a material adverse effect on operations.

Environmental Risks—The Company is subject to various environmental legal requirements and may be subject to new legal requirements in the future. These requirements may have a material adverse effect on operations.

The Company's operations and properties are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. Such legal requirements frequently change and vary among jurisdictions. The Company's operations and properties must comply with these legal requirements. These requirements may have a material adverse effect on operations.

The Company has incurred, and expects to incur, costs for its operations to comply with environmental legal requirements, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations), and criminal sanctions for violations. These legal

requirements may apply to conditions at properties that the Company presently or formerly owned or operated, as well as at other properties for which the Company may be responsible, including those at which wastes attributable to the Company were disposed. A significant order or judgment against the Company, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

A number of governmental authorities have enacted, or are considering enacting, legal requirements that would mandate certain rates of recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials. In addition, some companies with packaging needs have responded to such developments and/or perceived environmental concerns of consumers by using containers made in whole or in part of recycled materials. Such developments may reduce the demand for some of the Company's products and/or increase the Company's costs, which may have a material adverse effect on operations.

Taxes—Potential tax law changes could adversely affect net income and cash flow.

The Company is subject to income tax in the numerous jurisdictions in which it operates. Increases in income tax rates or other tax law changes, as well as ongoing audits by domestic and international authorities, could reduce the Company's net income and cash flow from affected jurisdictions. In particular, potential tax law changes in the U.S. regarding the treatment of the Company's unrepatriated non-U.S. earnings could have a material adverse effect on net income and cash flow. In addition, the Company's products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which it operates. Increases in these indirect taxes could affect the affordability of the Company's products and, therefore, reduce demand.

Labor Relations—Some of the Company's employees are unionized or represented by workers' councils.

The Company is party to a number of collective bargaining agreements with labor unions which at December 31, 2015, covered approximately 75% of the Company's employees in North America. The principal collective bargaining agreement, which at December 31, 2015 covered approximately 76% of the Company's union-affiliated employees in North America, will expire on March 31, 2016. Approximately 85% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. Upon the expiration of any collective bargaining agreement, if the Company is unable to negotiate acceptable contracts with labor unions, it could result in strikes by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of the Company's employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure the Company's workforce. In addition, if the Company's employees were to engage in a strike or other work stoppage, the Company could experience a significant disruption of operations and/or higher ongoing labor costs, which may have a material adverse effect on operations.

Key Management and Personnel Retention—Failure to retain key management and personnel could have a material adverse effect on operations.

The Company believes that its future success depends, in part, on its experienced management team and certain key personnel. The loss of certain key management and personnel could limit the Company's ability to implement its business plans and meet its objectives.

Joint Ventures—Failure by joint venture partners to observe their obligations could have a material adverse effect on operations.

A portion of the Company's operations is conducted through joint ventures, including joint ventures in the Europe, North America, Asia Pacific segments and in retained corporate costs and other. If the Company's joint venture partners do not observe their obligations or are unable to commit additional capital to the joint ventures, it is possible that the affected joint venture would not be able to operate in accordance with its business plans, which could have a material adverse effect on the Company's financial condition and results of operations.

Cybersecurity and Information Technology—Security threats and the failure or disruption of the integrity of the Company's information technology, or those of third parties with which it does business, could have a material adverse effect on its business and the results of operations.

The Company relies on information technology to operate its plants, to communicate with its employees, customers and suppliers, to store sensitive business information and intellectual property, and to report financial and operating results. As with all large systems, the Company's information technology systems could fail on their own accord or may be vulnerable to a variety of interruptions due to events, including, but not limited to, natural disasters, terrorist attacks, telecommunications failures, computer viruses, hackers or other security issues. The Company's disaster recovery programs and other preventative measures may be unable to prevent the failure or disruption of the Company's information technology systems, which could result in transaction errors, loss of customers, business disruptions, or loss of or damage to intellectual property and could have a material adverse effect on operations.

As cyberattacks on various organizations have increased, the Company's information technology systems may be subject to increased security issues. The Company has measures in place to prevent and detect global security threats, but may be unable to prevent certain security breaches. This may result in the loss of customers and business opportunities, regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensatory costs, and additional compliance costs. Failure or disruption of these systems, or the back-up systems, for any reason could disrupt the Company's operations and negatively impact the Company's cash flows or financial condition.

Accounting Estimates—The Company's financial results are based upon estimates and assumptions that may differ from actual results.

In preparing the Company's consolidated financial statements in accordance with U.S. generally accepted accounting principles, several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain information used in the preparation of the Company's financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that accounting for long-lived assets, pension benefit plans, contingencies and litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements. Actual results for all estimates could differ materially from the estimates and assumptions that the Company uses, which could have a material adverse effect on the Company's financial condition and results of operations.

Accounting Standards—The adoption of new accounting standards or interpretations could adversely impact the Company's financial results.

New accounting standards or pronouncements could adversely affect the Company's operating results or cause unanticipated fluctuations in its results in future periods. The accounting rules and regulations that the Company must comply with are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. While the Company believes that its financial statements have been prepared in accordance with U.S. generally accepted accounting principles, the Company cannot predict the impact of future changes to accounting principles or its accounting policies on its financial statements going forward.

Goodwill—A significant write down of goodwill would have a material adverse effect on the Company's reported results of operations and net worth.

Goodwill at December 31, 2015 totaled $2.5 billion. The Company evaluates goodwill annually (or more frequently if impairment indicators arise) for impairment using the required business valuation methods. These methods include the use of a weighted average cost of capital to calculate the present value of the expected future cash flows of the Company's reporting units. Future changes in the cost of capital, expected cash flows, or other factors may cause the Company's goodwill to be impaired, resulting in a non-cash charge against results of operations to write down goodwill for the amount of the impairment. If a significant write down is required, the charge would have a material adverse effect on the Company's reported results of operations and net worth.

Pension Funding—An increase in the underfunded status of the Company's pension plans could adversely impact the Company's operations, financial condition and liquidity.

The Company contributed $17 million, $28 million and $96 million to its defined benefit pension plans in 2015, 2014 and 2013, respectively. The amount the Company is required to contribute to these plans is determined by the laws and regulations governing each plan, and is generally related to the funded status of the plans. A deterioration in the value of the plans' investments or a decrease in the discount rate used to calculate plan liabilities generally would increase the underfunded status of the plans. An increase in the underfunded status of the plans could result in an increase in the Company's obligation to make contributions to the plans, thereby reducing the cash available for working capital and other corporate uses, and may have an adverse impact on the Company's operations, financial condition and liquidity.

Material Weakness - The Company has identified a material weakness in its internal control over financial reporting which has resulted in material misstatements in the Company's previously issued financial statements. If the Company's remedial measures are insufficient to address the material weakness, or if one or more additional material weaknesses or significant deficiencies in the Company's internal control over financial reporting are discovered or occur in the future, the Company's consolidated financial statements may contain material misstatements and the Company could be required to further restate its financial results, which could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

As discussed in the Explanatory Note to this Amendment No. 1, in Note 1 to the Consolidated Financial Statements and in Item 9A, "Controls and Procedures", management identified a material weakness in the Company's internal control over financial reporting as of December 31, 2015 related to a deficiency in the design of its control activities for the estimation of liabilities and costs related to probable losses for unasserted asbestos claims. The Company did not have sufficient controls in place to provide reasonable assurance that a material error would be prevented or detected related to the application of ASC 450 to the estimation of probable losses from unasserted asbestos claims. This deficiency in the design of the Company's controls resulted in a material error in the Company's financial statements as described further in Note 1 to the Consolidated Financial Statements.

A material weakness is a deficiency, or combination of deficiencies in material control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. As a result of this material weakness, management, under the supervision and with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has concluded that the Company's internal control over financial reporting and disclosure controls and procedures were not effective as of December 31, 2015.

To remediate the material weakness in the Company's internal control over financial reporting described in Management's Report on Internal Control over Financial Reporting, the Company will establish policies and procedures for the review, approval and application of generally accepted accounting principles to, and disclosure with respect to, unasserted asbestos claims. The Company intends to complement its revised method of determining its asbestos-related liability (see Note 12 to the Consolidated Financial Statements) with appropriate

analytical and review controls to ensure that the Company's liability and related disclosures comply with generally accepted accounting principles.

If the Company's remedial measures are insufficient to address the material weaknesses, or if one or more additional material weaknesses or significant deficiencies in the Company's internal control over financial reporting are discovered or occur in the future, the Company's consolidated financial statements may contain material misstatements and the Company could be required to further restate the Company's financial results, which could have a material adverse effect on the Company's financial condition, results of operations and cash flows, restrict the Company's ability to access the capital markets, require the Company to expend significant resources to correct the weaknesses or deficiencies, subject the Company to fines, penalties or judgments, harm the Company's reputation or otherwise cause a decline in investor confidence and cause a decline in the market price of the Company's common stock.

The Company cannot provide absolute assurance that additional significant deficiencies or material weaknesses in the Company's internal control over financial reporting will not be identified in the future. Any failure to maintain or implement required new or improved controls, or any difficulties the Company encounters in their implementation, could result in additional significant deficiencies or material weaknesses, cause the Company to fail to meet the Company's periodic reporting obligations or result in material misstatements in the Company's financial statements.

ITEM 1B. UNRESOLVED STAFF COMMENTS

On October 9, 2015, the Company received a comment letter from the staff of the SEC's Division of Corporation Finance as part of its review of the Company's Form 10-K for the year ended December 31, 2014 that commenced in June 2015. The staff requested additional information and provided comments relating to the Company's process for determining the appropriate charge for estimated future asbestos-related costs. The Company responded to the October 9, 2015 letter on December 21, 2015 and believed that it had addressed the staff's comments when it filed the Original Filing.

On April 15, 2016, the Company received a comment letter from the staff. The staff's letter responded to the Company's comment response letter dated December 21, 2015. The staff's comments requested the Company to reconsider (i) the factors included in accounting standards codification ("ASC") 450 without limiting the analysis to a subset of the population of claims not yet asserted when determining the Company's asbestos-related liability, (ii) the need to enhance the design of the Company's existing process and internal controls so that all key factors and assumptions that affect the asbestos-related liability and disclosures are appropriately considered and (iii) the Company's description of its critical accounting estimates related to the key judgments made to apply ASC 450. The Company responded to the staff's comment letter on April 29, 2016 and believes that the revisions to the Original Filing contained in this Amendment No. 1 address all of the staff's comments raised in its April 15 letter. As of the date of this filing, the Company has not received confirmation from the staff that its review process is complete. The Company intends to continue to work with the staff to resolve any remaining comments.

ITEM 2. PROPERTIES

The principal manufacturing facilities and other material important physical properties of the Company at December 31, 2015 are listed below. All properties are glass container plants and are owned in fee, except where otherwise noted.

North American Operations

United States

Atlanta, GA	Portland, OR
Auburn, NY	Streator, IL
Brockway, PA	Toano, VA
Crenshaw, PA	Tracy, CA
Danville, VA	Waco, TX
Kalama, WA	Windsor, CO
Lapel, IN	Winston-Salem, NC
Los Angeles, CA	Zanesville, OH
Muskogee, OK	

Canada

Brampton, Ontario	Montreal, Quebec

Asia Pacific Operations

Australia

Adelaide	Melbourne
Brisbane	Sydney

China

Tianjin	Zhaoqing

Indonesia

Jakarta

New Zealand

Auckland

European Operations

Czech Republic

Dubi	Nove Sedlo

Estonia

Jarvakandi

France

Beziers	Vayres
Gironcourt	Veauche
Labegude	Vergeze
Puy-Guillaume	Wingles
Reims	

Germany
- Bernsdorf
- Holzminden
- Rinteln

Hungary
- Oroshaza

Italy
- Asti
- Aprilia
- Bari
- Marsala
- Mezzocorona
- Origgio
- Ottaviano
- San Gemini
- San Polo
- Villotta

The Netherlands
- Leerdam
- Maastricht
- Schiedam

Poland
- Jaroslaw
- Poznan

Spain
- Barcelona
- Sevilla

United Kingdom
- Alloa
- Harlow

Latin American Operations

Argentina
- Rosario

Bolivia
- Cochabamba

Brazil
- Recife
- Rio de Janeiro (glass container and tableware)
- Sao Paulo
- Vitoria de Santo Antao (glass container and tableware)

Colombia
- Buga (tableware)
- Envigado
- Soacha
- Zipaquira

Ecuador
- Guayaquil

Mexico
- Guadalajara
- Los Reyes
- Monterrey
- Queretaro
- Toluca

Peru
- Callao
- Lurin(1)

Other Operations

Engineering Support Centers
- Brockway, Pennsylvania
- Cali, Colombia
- Hawthorn, Australia
- Jaroslaw, Poland
- Lurin, Peru
- Perrysburg, Ohio
- Villeurbanne, France

Shared Service Centers
- Medellin, Colombia
- Monterrey, Mexico
- Perrysburg, Ohio
- Poznan, Poland(1)

Distribution Center
- Laredo, TX(1)

Corporate Facilities

- Hawthorn, Australia(1)
- Miami, Florida(1)
- Perrysburg, Ohio(1)
- Vufflens-la-Ville, Switzerland(1)

(1) This facility is leased in whole or in part.

The Company believes that its facilities are well maintained and currently adequate for its planned production requirements over the next three to five years.

ITEM 3. LEGAL PROCEEDINGS

For further information on legal proceedings, see Note 12 to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHARE OWNER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The price range for the Company's common stock on the New York Stock Exchange, as reported by the Financial Industry Regulatory Authority, Inc., was as follows:

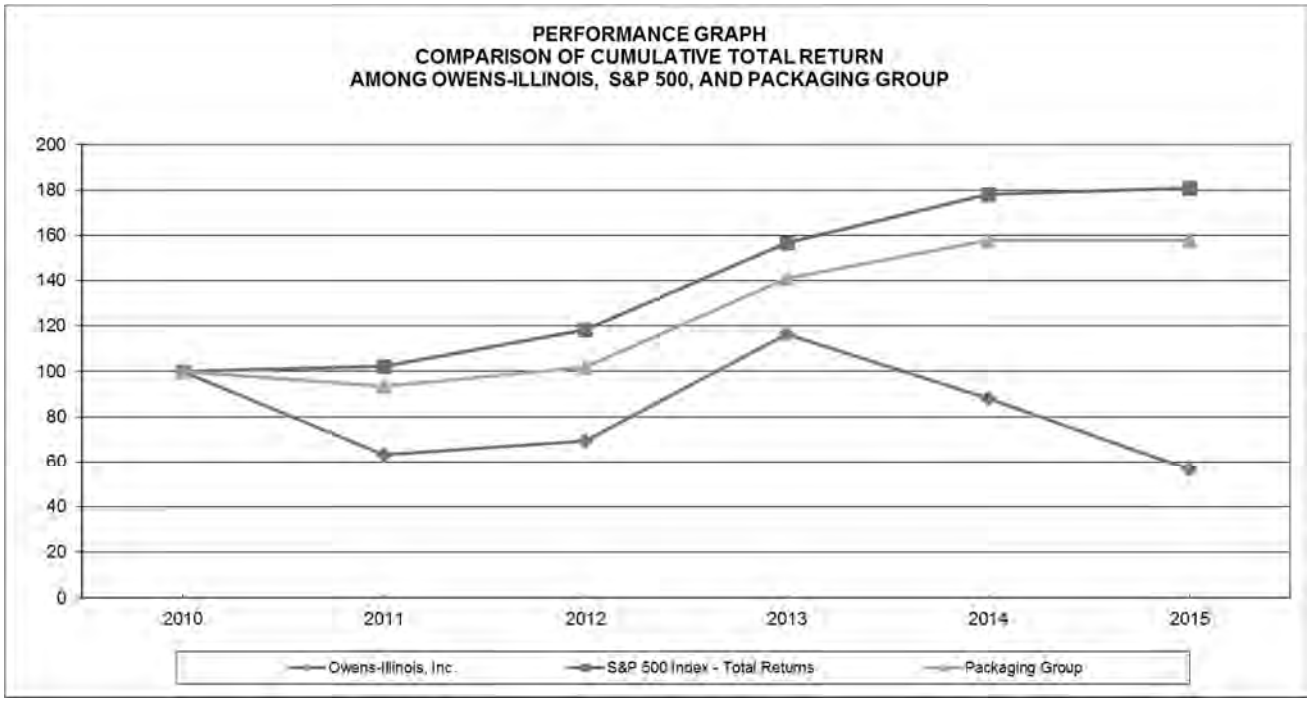
	2015		2014	
	High	Low	High	Low
First Quarter	$ 26.99	$ 22.85	$ 35.53	$ 30.88
Second Quarter	25.98	22.94	34.73	31.17
Third Quarter	22.93	19.42	35.16	26.05
Fourth Quarter	23.83	16.94	27.29	23.53

The number of share owners of record on December 31, 2015 was 1,131. Approximately 99% of the outstanding shares were registered in the name of Depository Trust Company, or CEDE, which held such shares on behalf of a number of brokerage firms, banks, and other financial institutions. The shares attributed to these financial institutions, in turn, represented the interests of more than 25,597 unidentified beneficial owners. No dividends have been declared or paid since the Company's initial public offering in December 1991 and the Company does not anticipate paying any dividends in the near future. For restrictions on payment of dividends on the Company's common stock, see Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Resources and Liquidity—Current and Long-Term Debt and Note 11 to the Consolidated Financial Statements.

Information with respect to securities authorized for issuance under equity compensation plans is included herein under Item 12.

The Company did not purchase any shares of its common stock for the three months ended December 31, 2015 (4.1 million shares purchased for the twelve months ended December 31, 2015). The Company has $380 million remaining for repurchases as of December 31, 2015 pursuant to authorization by its Board of Directors in October 2014 to purchase up to $500 million of the Company's common stock until December 31, 2017.

PERFORMANCE GRAPH
COMPARISON OF CUMULATIVE TOTAL RETURN
AMONG OWENS-ILLINOIS, INC., S&P 500, AND PACKAGING GROUP



	Years Ending December 31,					
	2010	2011	2012	2013	2014	2015
Owens-Illinois, Inc.	$ 100.00	$ 63.13	$ 69.28	$ 116.55	$ 87.92	$ 56.74
S&P 500	100.00	102.11	118.45	156.82	178.28	180.75
Packaging Group	100.00	93.26	101.84	141.03	157.64	157.85

The above graph compares the performance of the Company's Common Stock with that of a broad market index (the S&P 500 Composite Index) and a packaging group consisting of companies with lines of business or product end uses comparable to those of the Company for which market quotations are available.

The packaging group consists of: AptarGroup, Inc., Ball Corp., Bemis Company, Inc., Crown Holdings, Inc., Owens-Illinois, Inc., Sealed Air Corp., Silgan Holdings Inc., and Sonoco Products Co. The comparison of total return on investment for each period is based on the investment of $100 on December 31, 2010 and the change in market value of the stock, including additional shares assumed purchased through reinvestment of dividends, if any.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below relates to each of the three years in the period ended December 31, 2015. The financial data for each of the three years in the period ended December 31, 2015 was derived from the audited consolidated financial statements of the Company and was revised for the effects of the restatement described in this Amendment No. 1. The selected consolidated financial data for the years ended

December 31, 2012 and 2011 have been omitted from this Amendment No. 1 because it was not practicable for the Company to restate this financial information without undue effort.

	Years ended December 31,		
	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
	(Dollars in millions)		
Consolidated operating results:			
Net sales	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold(a)	(5,046)	(5,531)	(5,636)
Gross profit	1,110	1,253	1,331
Selling and administrative, research, development and engineering(a)	(540)	(586)	(568)
Other expense, net(a)	(51)	(130)	(66)
Earnings before interest expense and items below	519	537	697
Interest expense, net(a)	(251)	(230)	(229)
Earnings from continuing operations before income taxes	268	307	468
Provision for income taxes(a)	(106)	(92)	(120)
Earnings from continuing operations	162	215	348
Loss from discontinued operations	(4)	(23)	(18)
Net earnings	158	192	330
Net (earnings) attributable to noncontrolling interests	(23)	(28)	(13)
Net earnings attributable to the Company	$ 135	$ 164	$ 317

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

	Years ended December 31,		
	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Basic earnings per share of common stock:			
Earnings from continuing operations	$ 0.86	$ 1.14	$ 2.03
Loss from discontinued operations	(0.03)	(0.14)	(0.11)
Net earnings	$ 0.83	$ 1.00	$ 1.92
Weighted average shares outstanding (in thousands)	161,169	164,720	164,425
Diluted earnings per share of common stock:			
Earnings from continuing operations	$ 0.85	$ 1.13	$ 2.02
Loss on disposal of discontinued operations	(0.03)	(0.14)	(0.11)
Net earnings	$ 0.82	$ 0.99	$ 1.91
Diluted average shares (in thousands)	162,135	166,047	165,828

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

	Years ended December 31,		
	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
	(Dollars in millions)		
Other data:			
The following are included in earnings from continuing operations:			
Depreciation	$ 323	$ 335	$ 350
Amortization of intangibles	86	83	47
Amortization of deferred finance fees (included in interest expense)	15	30	32
Balance sheet data (at end of period):			
Working capital (current assets less current liabilities)	$ 212	$ 43	$ 296
Total assets	9,421	7,843	8,393
Total debt	5,573	3,445	3,541
Total share owners' equity	279	771	1,010
Free cash flow(b)	$ 210	$ 329	$ 339

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

a) Note that the items below relate to items management considers not representative of ongoing operations.

	Years ended December 31,		
	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
	(Dollars in millions)		
Cost of goods sold			
Restructuring, asset impairment and related charges	$ —	$ 8	$ —
Pension settlement charges		50	
Acquisition-related fair value inventory adjustments	22		
Selling and administrative, research, development and engineering			
Pension settlement charges		15	
Other expense, net			
Charge for asbestos-related costs	16	46	12
Restructuring, asset impairment and other charges	75	78	119
Non-income tax charge		69	
Equity earnings related charges	5	5	
Gain related to cash received from the Chinese government as compensation for land in China that the Company was required to return to the government			
Write-down of goodwill in the Asia Pacific segment			
Acquisition-related fair value intangible adjustments	10		
Strategic transaction costs	23		
Interest expense, net			
Note repurchase premiums and additional interest charges for the write-off of unamortized deferred financing fees related to the early extinguishment of debt	42	20	11
Provision for income taxes			
Tax expense (benefit) recorded for certain tax adjustments	8	(8)	
Net tax (benefit) expense for income tax on items above	(15)	(34)	(14)
Net earnings attributable to noncontrolling interest			
Net impact of noncontrolling interests on items above			(13)
	$ 186	$ 249	$ 115

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

b) The Company defines free cash flow as cash provided by continuing operating activities less additions to property, plant and equipment from continuing operations. Free cash flow does not conform to U.S. GAAP and should not be construed as an alternative to the cash flow measures reported in accordance with U.S. GAAP. The Company uses free cash flow for internal reporting, forecasting and budgeting and believes this information allows the board of directors, management, investors and analysts to better understand the Company's financial performance. Free cash flow is calculated as follows (dollars in millions):

Years ended December 31,	2015	2014	2013
Cash provided by continuing operating activities	$ 612	$ 698	$ 700
Additions to property, plant and equipment	(402)	(369)	(361)
Free cash flow	$ 210	$ 329	$ 339

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion should be read together with the Consolidated Financial Statements and related Notes thereto and other financial information appearing elsewhere in this Form 10-K/A. All of the financial information presented in this Item 7 has been revised to reflect the restatement more fully described in Note 1 to the Consolidated Financial Statements.

In connection with the Vitro Acquisition on September 1, 2015 (see Note 19 to the Consolidated Financial Statements), the Company has renamed the former South America segment to the Latin America segment. This change in segment name was made to reflect the addition of the Mexican and Bolivian operations from the Vitro Acquisition into the former South America segment. The acquired Vitro food and beverage glass container distribution business located in the United States is included in the North American operating segment.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The segment data presented below is prepared in accordance with general accounting principles for segment reporting. The line titled "reportable segment totals", however, is a non-GAAP measure when presented outside of the financial statement footnotes. Management has included reportable segment totals below to facilitate the discussion and analysis of financial condition and results of operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources.

Financial information regarding the Company's reportable segments is as follows (dollars in millions):

	2015	2014	2013
Net Sales:			
Europe	$ 2,324	$ 2,794	$ 2,787
North America	2,039	2,003	2,002
Latin America	1,064	1,159	1,186
Asia Pacific	671	793	966
Reportable segment totals	6,098	6,749	6,941
Other	58	35	26
Net Sales	$ 6,156	$ 6,784	$ 6,967

	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Segment operating profit:			
Europe	$ 209	$ 353	$ 305
North America	265	240	307
Latin America	183	227	204
Asia Pacific	83	88	131
Reportable segment totals	740	908	947
Items excluded from segment operating profit:			
Retained corporate costs and other	(70)	(100)	(119)
Charge for asbestos-related costs	(16)	(46)	(12)
Restructuring, asset impairment and other related charges	(80)	(91)	(119)
Strategic transaction costs	(23)		
Acquisition-related fair value inventory adjustments	(22)		
Acquisition-related fair value intangible adjustments	(10)		
Non-income tax charge		(69)	
Pension settlement charges		(65)	
Interest expense, net	(251)	(230)	(229)
Earnings from continuing operations before income taxes	268	307	468
Provision for income taxes	(106)	(92)	(120)
Earnings from continuing operations	162	215	348
Loss from discontinued operations	(4)	(23)	(18)
Net earnings	158	192	330
Net earnings attributable to noncontrolling interests	(23)	(28)	(13)
Net earnings attributable to the Company	$ 135	$ 164	$ 317
Net earnings from continuing operations attributable to the Company	$ 139	$ 187	$ 335

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

Note: all amounts excluded from reportable segment totals are discussed in the following applicable sections.

Executive Overview—Comparison of 2015 with 2014

2015 Highlights

- The unfavorable effect of foreign currency exchange rates reduced net sales by 13% and segment operating profit by 16% in 2015 compared to the prior year
- Acquired the food and beverage glass container business of Vitro, S.A.B. de C.V. for $2.297 billion
- Entered into a new senior secured credit facility that matures in April 2020. To finance the Vitro Acquisition, this facility was then amended to borrow an incremental $1.25 billion. The Company also issued $1 billion of senior notes due 2023 and 2025.
- Repaid the senior notes due 2016
- Repurchased $100 million of shares of common stock

Net sales decreased by $628 million compared to the prior year primarily due to the unfavorable effect of changes in foreign currency exchange rates. Net sales for 2015 included approximately $258 million from the acquired Vitro Business.

Segment operating profit for reportable segments decreased by $168 million compared to the prior year. The decrease was largely attributable to the unfavorable effect of changes in foreign currency exchange rates and

higher operating costs due to cost inflation and lower operational performance in Europe. Segment operating profit for 2015 included approximately $46 million from the acquired Vitro Business.

Net interest expense in 2015 increased $21 million compared to 2014. The increase was due to higher note repurchase premiums and the write-off of finance fees related to debt that was repaid during 2015 prior to its maturity. Exclusive of these items, net interest expense decreased $1 million in the current year primarily due to debt management activities and the weaker Euro exchange rate in relation to the U.S. dollar, partially offset by an increase in net interest expense as a result of higher debt due to the Vitro Acquisition.

For 2015, the Company recorded earnings from continuing operations attributable to the Company of $139 million, or $0.85 per share (diluted), compared with earnings of $187 million, or $1.13 per share (diluted), for 2014. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $186 million, or $1.15 per share, in 2015 and $249 million, or $1.50 per share, in 2014.

Results of Operations—Comparison of 2015 with 2014

Net Sales

The Company's net sales in 2015 were $6,156 million compared with $6,784 million in 2014, a decrease of $628 million. Unfavorable foreign currency exchange rates, primarily due to a weaker Brazilian real, Colombian peso, Euro, Canadian dollar and Australian dollar in relation to the U.S. dollar, impacted sales by $881 million in 2015 compared to 2014. Driven by incremental shipments related to the Vitro Acquisition, total glass container shipments, in tonnes, were up approximately 3% in 2015 compared to 2014. The Vitro Acquisition resulted in approximately $258 million of additional sales. Excluding the impact of the Vitro Acquisition, shipments in 2015 were comparable to 2014. On a global basis, sales volumes of wine, spirits, food and non-alcoholic beverages all grew year-on-year. While sales volumes in the beer category declined by approximately 1%, driven by a decline in mainstream beer, shipments into craft and premium beer customers continued to expand. However, an unfavorable sales mix resulted in $47 million of lower net sales in 2015. Net sales also benefited from slightly higher selling prices in 2015.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2014		$ 6,749
Price	$ 19	
Sales volume (excluding acquisitions)	(47)	
Effects of changing foreign currency rates	(881)	
Vitro Acquisition	258	
Total effect on net sales		(651)
Net sales— 2015		$ 6,098

Europe: Net sales in Europe in 2015 were $2,324 million compared with $2,794 in 2014, an decrease of $470 million, or 17%. The primary reason for the decline in net sales in the region in 2015 was a $445 million impact due to foreign currency exchange rates, as the Euro weakened in relation to the U.S. dollar. Glass container shipments in 2015 increased slightly compared to the prior year and this increased net sales by $9 million. Selling prices decreased in Europe due to competitive pressures and resulted in a $34 million decrease in net sales in 2015. This trend in lower prices is expected to continue into the first quarter of 2016.

North America: Net sales in North America in 2015 were $2,039 million compared with $2,003 million in 2014, an increase of $36 million, or 2%. Net sales from the acquired Vitro food and beverage business in the United States increased the region's net sales by $80 million in 2015. Total glass container shipments in the region were up 3% in 2015 compared to 2014. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were up slightly in 2015, however, an unfavorable sales mix resulted in $4 million of lower sales. Lower selling prices decreased net sales by $14 million in 2015 due, in part, to the Company's contractual pass through provisions of lower natural gas costs. Unfavorable foreign currency exchange rate changes decreased net sales by $26 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2015 were $1,064 million compared with $1,159 million in 2014, a decrease of $95 million, or 8%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $293 million in 2015 compared to 2014, principally due to a decline in the Brazilian real and the Colombian peso in relation to the U.S. dollar. Net sales from the acquired Vitro food and beverage business in Mexico and Bolivia increased the region's net sales by approximately $178 million in 2015. Total glass container shipments were up approximately 18% in 2015. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were down nearly 4% in 2015. This decline impacted net sales by approximately $45 million and was primarily due to a general economic slowdown in Brazil, which is expected to continue into 2016. Improved pricing in the current year benefited net sales by $65 million.

Asia Pacific: Net sales in Asia Pacific in 2015 were $671 million compared with $793 million for 2014, a decrease of $122 million, or 15%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $117 million in 2015 compared to 2014, primarily due to the weakening of the Australian dollar in relation to the U.S. dollar. Glass container shipments were down 3% compared to the prior year, largely due to the planned plant closures in China in 2014. This resulted in $7 million of lower sales in 2015. Higher prices increased net sales by $2 million in the current year.

Segment Operating Profit

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2015 was $740 million compared to $908 million in 2014, a decrease of $168 million, or 19%. The decrease in segment operating profit was primarily due to unfavorable foreign currency exchange rates. In addition, cost inflation and lower operational performance in Europe increased operating costs in the current year. Segment operating profit for 2015 included approximately $46 million from the acquired Vitro Businesses.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2014		$ 908
Price	$ 19	
Sales volume (excluding acquisitions)	(8)	
Operating costs	(84)	
Effects of changing foreign currency rates	(141)	
Vitro Acquisition	46	
Total net effect on segment operating profit		(168)
Segment operating profit - 2015		$ 740

Europe: Segment operating profit in Europe in 2015 was $209 million compared with $353 million in 2014, a decrease of $144 million, or 41%. The unfavorable effects of foreign currency exchange rates in 2015 decreased segment operating profit by $63 million compared to the prior year. The region also had higher operating costs and lower production volumes in 2015 due to a higher level of furnace rebuild activity and lower productivity. In addition, the region did not receive an energy credit from a local government entity in 2015 as it had in the prior year. Together, this activity contributed to a $49 million increase to operating expenses in Europe in 2015 compared to 2014. Lower selling prices impacted segment operating profit by $34 million due to competitive activity, primarily in Southern Europe, while slightly higher sales volumes benefited segment operating profit by $2 million in 2015.

North America: Segment operating profit in North America in 2015 was $265 million compared with $240 million in 2014, an increase of $25 million, or 10%. Segment operating profit from the acquired Vitro food and beverage glass container distribution business in the region contributed $4 million in 2015. Segment

operating profit also benefited from lower operating costs of $38 million in the current year, which were driven by lower energy, supply chain and logistics costs. As a result of the lower energy costs and the Company's contractual pass through provisions, selling prices were $14 million lower in 2015 compared to 2014. Also, the unfavorable effects of the weakening of the Canadian dollar in relation to the U.S. dollar decreased segment operating profit by $3 million.

Latin America: Segment operating profit in Latin America in 2015 was $183 million compared with $227 million in 2014, a decrease of $44 million, or 19%. The unfavorable effects of foreign currency rate changes decreased segment operating profit by $58 million in the current year. Segment operating profit from the acquired Vitro food and beverage business increased the region's operating profit by $42 million in 2015. Excluding the impact of the Vitro Acquisition, the decline in sales volume discussed above reduced segment operating profit by $12 million. Segment operating profit was also impacted by $75 million of higher operating costs, primarily due to energy and soda ash inflation in Brazil. In addition, approximately $6 million of non-strategic asset sales, which benefited 2014, did not reoccur in 2015. Higher selling prices increased segment operating profit by $65 million in 2015.

Asia Pacific: Segment operating profit in Asia Pacific in 2015 was $83 million compared with $88 million in 2014, a decrease of $5 million, or 6%. The unfavorable effects of foreign currency exchange rates decreased segment operating profit by $17 million. Despite the decline in sales volume discussed above, a favorable sales mix resulted in a $2 million increase to segment operating profit. Segment operating profit also benefited as operating costs decreased by $8 million in the current year driven by footprint savings from prior year capacity reductions in the region and the favorable impact of an insurance recovery. Higher selling prices increased segment operating profit by $2 million in the current year.

Interest Expense, net

Net interest expense in 2015 was $251 million compared with $230 million in 2014. The increase was due to higher note repurchase premiums and the write-off of finance fees related to refinancing activities in 2015. Exclusive of these items, net interest expense decreased $1 million in the current year primarily due to debt management activities and the weaker Euro exchange rate in relation to the U.S. dollar, partially offset by an increase in net interest expense as a result of higher debt due to the Vitro Acquisition.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2015 was 39.6%, compared with 30.0% for 2014. The effective tax rate for 2015 was impacted by several charges that management considered not representative of ongoing operations, including charges for note repurchase premiums, the write-off of finance fees, restructuring charges and acquisition fees, for which no tax benefit was recorded due to the Company's valuation allowance recorded in the U.S. The effective tax rate for 2014 was impacted by a non-income tax charge, which was not deductible for income tax purposes.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2015 was approximately 25%, compared with approximately 22% for 2014. The 2015 effective tax rate was higher due to the geographic mix of earnings and timing issues associated with the establishment of the legal structure for the acquired operations in Mexico, the latter of which was resolved by year end 2015.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2015 was $23 million compared to $28 million for 2014. The decrease in 2015 was largely attributable to the unfavorable effect of changes in foreign currency exchange rates.

Earnings (loss) from Continuing Operations Attributable to the Company

For 2015, the Company recorded earnings from continuing operations attributable to the Company of $139 million, or $0.85 per share (diluted), compared with earnings of $187 million, or $1.13 per share (diluted), for 2014. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2015 and 2014 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2015 (restated[1])**	**2014 (restated[1])**
Charge for asbestos-related costs	$ (16)	$ (46)
Restructuring, asset impairment and other charges	(69)	(67)
Note repurchase premiums and write-off of finance fees	(42)	(20)
Strategic transaction costs	(26)	
Acquisition-related fair value inventory adjustments	(16)	
Acquisition-related fair value intangible adjustments	(9)	
Tax benefit (charge) for certain tax adjustments	(8)	8
Non-income tax charge		(69)
Pension settlement charges		(55)
Total	$ (186)	$ (249)

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2015 were reduced due to foreign currency effects compared to 2014.

This trend has continued into 2016 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Executive Overview—Comparison of 2014 with 2013

2014 Highlights

- Segment operating profit decreased due to higher operating costs, partially offset by higher selling prices and the benefits from the European asset optimization program
- Entered into a joint venture in Mexico and a long-term supply agreement with Constellation Brands, Inc. to supply glass containers for their beer business
- Issued $800 million of senior notes due 2022 and 2025 and repurchased $611 million of exchangeable senior notes
- Strong cash generation improves leverage ratio and continues share repurchases

Net sales decreased by $183 million compared to the prior year due to a 2% decline in glass container shipments and due to the unfavorable effect of changes in foreign currency exchange rates. Higher selling prices had a positive impact on net sales.

Segment operating profit for reportable segments decreased by $39 million compared to the prior year. The decrease was mainly attributable to higher operating costs, driven by cost inflation in most of the regions, higher supply chain and production costs in North America and lower production volumes in Asia Pacific and North America. Higher selling prices and the benefits from the European asset optimization partially offset these costs.

Net interest expense in 2014 increased $1 million compared to 2013. The increase was due to higher note repurchase premiums and the write-off of finance fees related to debt that was repaid during 2014 prior to its maturity than experienced in 2013. Exclusive of these costs, net interest declined $5 million in 2014 compared to 2013 due to debt reduction initiatives and lower interest rates.

Earnings from continuing operations attributable to the Company in 2014 were $187 million, or $1.13 per share (diluted), compared with $335 million, or $2.02 per share (diluted), for 2013. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $249 million, or $1.50 per share, in 2014 and $115 million, or $0.70 per share, in 2013.

Results of Operations—Comparison of 2014 with 2013

Net Sales

The Company's net sales in 2014 were $6,784 million compared with $6,967 million in 2013, a decrease of $183 million. Glass container shipments, in tonnes, were down 2% in 2014 compared to 2013, driven by lower sales in Asia Pacific. Net sales were also lower due to the unfavorable effects of foreign currency exchange rate changes, primarily due to a weaker Brazilian real, Colombian peso and Australian dollar in relation to the U.S. dollar. Net sales in 2014 benefited from higher selling prices.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2013		$ 6,941
Price	$ 73	
Sales volume (excluding acquisitions)	(112)	
Effects of changing foreign currency rates	(153)	
Total effect on net sales		(192)
Net sales— 2014		$ 6,749

Europe: Net sales in Europe in 2014 were $2,794 million compared with $2,787 in 2013, an increase of $7 million, or less than 1%. Glass container shipments in 2014 increased 2% compared to the prior year, particularly in the beer and wine categories. The higher sales volume, which increased net sales by $49 million, was mainly due to unseasonably warm weather conditions in the first quarter and the carryover benefits of the Company's wine share recovery efforts from the prior year. Net sales in Europe decreased by $3 million due to the unfavorable effects of foreign currency exchange rate changes, as the Euro weakened in relation to the U.S. dollar. Lower selling prices also reduced sales by $39 million in 2014.

North America: Net sales in North America in 2014 were $2,003 million compared with $2,002 million in 2013, an increase of $1 million. Higher selling prices of $45 million increased net sales in 2014 due, in part, to the Company's contractual pass through provisions, as well as from passing through the freight costs for a large customer. Net sales declined by $30 million in 2014 compared to the prior year due to a 1% decrease in glass container shipments and a less favorable sales mix. The primary driver for the decline in the region's volumes in 2014 was due to lower sales to major domestic beer brands. Unfavorable foreign currency exchange rates decreased net sales by $14 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2014 were $1,159 million compared with $1,186 million in 2013, a decrease of $27 million, or 2%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $96 million in 2014 compared to 2013, principally due to a decline in the Brazilian real and the Colombian peso in relation to the U.S. dollar. Net sales increased by $14 million in 2014 driven by a 4% increase in glass container shipments, partially offset by a change in sales mix. Volume growth was particularly

strong in the beer category in 2014 and was evident in most of the countries where the Company operates in the region. Improved pricing in the current year benefited net sales by $55 million.

Asia Pacific: Net sales in Asia Pacific in 2014 were $793 million compared with $966 million for 2013, a decrease of $173 million, or 18%. The decrease in net sales was primarily due to lower sales volume, which resulted in $145 million of lower sales in 2014. Glass container shipments were down 20% compared to the prior year, largely due to the planned plant closures in China, as well as lower shipments in Australia due to weaker demand in the domestic beer and export wine markets. To balance supply with demand, the Company permanently closed a furnace in Australia in the third quarter of 2014. The unfavorable effects of foreign currency exchange rate changes decreased net sales $40 million in 2014 compared to 2013, primarily due to the weakening of the Australian dollar in relation to the U.S. dollar. Higher prices increased net sales by $12 million in the current year.

Segment Operating Profit

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2014 was $908 million compared to $947 million in 2013, a decrease of $39 million, or 4%. The decline in segment operating profit was primarily due to higher operating costs, partially offset by the benefits from the European asset optimization program and higher selling prices. Operating costs increased in the current year due to cost inflation, higher supply chain and production costs in North America and lower production volumes in Asia Pacific.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2013		$ 947
Price	$ 73	
Sales volume	(7)	
Operating costs	(99)	
Effects of changing foreign currency rates	(6)	
Total net effect on segment operating profit		(39)
Segment operating profit - 2014		$ 908

Europe: Segment operating profit in Europe in 2014 was $353 million compared with $305 million in 2013, an increase of $48 million, or 16%. Lower operating expenses, driven by cost deflation and benefits from the region's asset optimization program, had a $70 million positive impact on segment operating profit in 2014. The increase in sales volume discussed above increased segment operating profit by $14 million. Partially offsetting these benefits were lower selling prices, which were down $39 million in the current year due, in part, to competitive pressures in the region. Foreign currency exchange rates increased segment profit by $3 million in 2014.

In 2014, the Company continued implementing the European asset optimization program to increase the efficiency and capability of its European operations. Through this program, the Company expects to improve the long term profitability of this region through investments and by addressing higher cost facilities to better align its European manufacturing footprint with market and customer needs.

North America: Segment operating profit in North America in 2014 was $240 million compared with $307 million in 2013, a decrease of $67 million, or 22%. The decrease in segment operating profit was primarily due to higher operating costs of $102 million in the current year, which were driven by higher energy, raw material and supply chain costs, as well as lower production and productivity levels. The decrease in sales volume mentioned above reduced segment profit by $9 million. Higher selling prices partially offset these

impacts and increased segment operating profit by $45 million in the current year. The unfavorable effects of foreign exchange rates decreased segment profit by $1 million.

Latin America: Segment operating profit in Latin America in 2014 was $227 million compared with $204 million in 2013, an increase of $23 million, or 11%. Higher selling prices increased segment operating profit in 2014 by $55 million. The increase in sales volume discussed above increased segment operating profit by $13 million. Several non-strategic asset sales also benefited segment operating profit by $6 million in the current year. Operating costs were $45 million higher in 2014, primarily driven by cost inflation, and partially offset by higher productivity in the region. The unfavorable effects of foreign currency exchange rate changes decreased segment operating profit by $6 million in the current year.

Asia Pacific: Segment operating profit in Asia Pacific in 2014 was $88 million compared with $131 million in 2013, a decrease of $43 million, or 33%. Operating costs increased by $28 million in the current year and were driven by lower production volumes and cost inflation. The decline in sales volume discussed above decreased segment operating profit by $25 million. The unfavorable effects of foreign currency exchange rates decreased segment profit by $2 million. Higher selling prices increased segment profit by $12 million in the current year.

Interest Expense, net

Net interest expense in 2014 was $230 million compared with $229 million in 2013. Interest expense for 2014 included $20 million for note repurchase premiums and the write-off of finance fees related to the tender offer to purchase all of its outstanding 3.00% Exchangeable Senior Notes due 2015 (the "2015 Exchangeable Notes"). Net interest expense for 2013 included $14 million for note repurchase premiums and the write-off of finance fees related to the discharge of the €300 million Senior Notes due 2017 (the "2017 Senior Notes") and related to the repurchase of a portion of the 2015 Exchangeable Notes. Exclusive of these items, net interest expense decreased $5 million in the current year primarily due to debt reduction initiatives and lower interest rates

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2014 was 30.0%, compared with 25.6% for 2013. The effective tax rate for 2014 was impacted by a non-income tax charge, which was not deductible for income tax purposes. Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2014 was 22.4%, compared with 21.9% for 2013.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2014 was $28 million compared to $13 million for 2013. The increase in 2014 was primarily due to the nonoccurrence of the impacts from restructuring and asset impairment charges in 2013 at the Company's less than wholly-owned facilities in Latin America and Asia Pacific, as well as higher earnings in the Company's less than wholly-owned subsidiaries in Latin America in 2014.

Earnings from Continuing Operations Attributable to the Company

For 2014, the Company recorded earnings from continuing operations attributable to the Company of $187 million compared with $335 million for 2013. The after tax effects of the items excluded from segment

operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2014 and 2013 as set forth in the following table (dollars in millions).

Description	Net Earnings Increase (Decrease) 2014 (restated[1])	2013 (restated[1])
Charge for asbestos-related costs	$ (46)	$ (12)
Non-income tax charge	(69)	
Restructuring, asset impairment and other charges	(67)	(92)
Pension settlement charges	(55)	
Note repurchase premiums and write-off of finance fees	(20)	(11)
Tax benefit for certain tax adjustments	8	
Total	$ (249)	$ (115)

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2014 were reduced due to foreign currency effects compared to 2013.

This trend has continued into 2015 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Items Excluded from Reportable Segment Totals

Retained Corporate Costs and Other

Retained corporate costs and other for 2015 were $70 million compared with $100 million for 2014. Retained corporate costs and other declined in 2015 compared to 2014 due to lower pension expense, lower management incentive compensation expense and the favorable impact from currency hedges.

Retained corporate costs and other for 2014 were $100 million compared with $119 million for 2013. Retained corporate costs and other declined in 2014 compared to 2013 due to lower pension expense.

Charge for Asbestos-Related Costs

In April 2016, the Company determined that it had incorrectly applied the provisions of ASC 450, *Contingencies*, in measuring its liability related to unasserted claims and related legal costs arising from the Company's previous sale of products containing asbestos (see Note 12 to the Consolidated Financial Statements).

Beginning in 2003, the Company had estimated its asbestos-related liability based on an analysis of how far in the future it could reasonably estimate the number of claims it would receive. Subsequent to the filing of its Annual Report on Form 10-K for the year ended December 31, 2015 ("2015 Annual Report"), the Company has concluded that its method for estimating its future asbestos-related liability was not consistent with ASC 450. Therefore, with the assistance of an external consultant, and utilizing a model with actuarial inputs, the Company has developed a new method for reasonably estimating its total asbestos-related liability. See Note 12 to the Consolidated Financial Statements for additional detail. Using the new model, the Company calculated a total

asbestos-related liability of $817 million as of December 31, 2015, which is $295 million higher than previously calculated. The revised liability is reflected in the balance sheet as of December 31, 2015. Using the same model with actuarial inputs, the Company also revised its total asbestos-related liability as of December 31, 2014 to $939 million.

In light of the foregoing, the Company amended its 2015 Annual Report to restate the financial statements contained therein to reflect the effects of its new method for estimating its total asbestos-related liability and to make certain corresponding disclosures related thereto (see Note 1 to the Consolidated Financial Statements). The restated charges for asbestos-related costs were $16 million, $46 million, and $12 million for the years ended December 31, 2015, 2014 and 2013, respectively.

The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its future comprehensive annual reviews, the Company will estimate its total asbestos-related liability and such reviews may result in adjustments to the liability accrued at the time of the review.

See "Critical Accounting Estimates" and Note 12 to the Consolidated Financial Statements for additional information.

Restructuring, Asset Impairment and Other Charges

During 2015, the Company recorded charges totaling $80 million for restructuring, asset impairment and other charges. These charges reflect $63 million of completed furnace closures, primarily in the North America and Latin America regions and other charges of $17 million.

During 2014, the Company recorded charges totaling $91 million for restructuring, asset impairment and other charges. These charges reflect $76 million of completed and planned furnace closures in Europe and Asia Pacific and other charges of $15 million.

During 2013, the Company recorded charges totaling $119 million for restructuring, asset impairment and related charges. These charges reflect completed and planned plant and furnace closures in Europe, Latin America and Asia Pacific, as well as global headcount reduction initiatives. These charges also include an asset impairment charge related to the Company's operations in Argentina, primarily due to macroeconomic issues in that country.

See Note 8 to the Consolidated Financial Statements for additional information.

Acquisition-related Fair Value Adjustments and Strategic Transaction Costs

During 2015, the Company recorded charges of $22 million for acquisition-related fair value inventory adjustments related to the Vitro Acquisition. These charges were due to the accounting rules requiring inventory purchased in a business combination to be marked up to fair value and then recorded as an increase to cost of goods sold as the inventory is sold. During 2015, the Company also recorded charges of $10 million for acquisition-related fair value intangible asset adjustments related to trademark assets with short-term lives acquired as part of the Vitro Acquisition.

During 2015, the Company recorded charges of $23 million for strategic transaction costs related to the Vitro Acquisition.

Non-income tax charge

In 2014, the Company recorded a $69 million charge based on a ruling on a non-income tax assessment.

Pension Settlement Charges

During 2014, the Company recorded charges totaling $65 million for pension settlements in the United States and the Netherlands.

See Note 9 to the Consolidated Financial Statements for additional information.

Discontinued Operations

On March 10, 2015, a tribunal constituted under the auspices of the International Centre for Settlement of Investment Disputes ("ICSID") awarded a subsidiary of the Company more than $455 million in an international arbitration against Venezuela related to the 2010 expropriation of the Company's majority interest in two plants in that country. On July 10, 2015, ICSID confirmed that it had received from Venezuela a petition to annul the award. The annulment process can take up to several years to complete. The Company is unable at this stage to predict the amount or timing of compensation it will ultimately receive under the award. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants.

The loss from discontinued operations of $4 million for the year ended December 31, 2015 relates to ongoing costs for the Venezuelan expropriation. The loss from discontinued operations of $23 million for the year ended December 31, 2014 included a settlement of a dispute with the purchaser of a previously disposed business, as well as ongoing costs related to the Venezuela expropriation.

Acquisition of Vitro, S.A.B. de C.V.'s Food and Beverage Glass Container Business

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from its recently completed senior notes offering, cash on hand and the incremental term loan facilities (see Note 11 to the Consolidated Financial Statements).

Capital Resources and Liquidity

As of December 31, 2015, the Company had cash and total debt of $399 million and $5.6 billion, respectively, compared to $512 million and $3.4 billion, respectively, as of December 31, 2014. A significant portion of the cash was held in mature, liquid markets where the Company has operations, such as the U.S., Europe and Australia, and is readily available to fund global liquidity requirements. The amount of cash held in non-U.S. locations as of December 31, 2015 was $393 million.

Current and Long-Term Debt

On April 22, 2015, certain of the Company's subsidiaries entered into a new Senior Secured Credit Facility (the "Agreement"), which amended and restated the previous credit agreement (the "Previous Agreement"). The proceeds from the Agreement were used to repay all outstanding amounts under the Previous Agreement and the 7.375% senior notes due 2016. The Company recorded $42 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in 2015.

In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 19 to the Consolidated Financial Statements), the Company entered into Amendment No. 2 ("Amendment No. 2") to the Agreement, which provided for additional incremental availability under the incremental dollar cap in the Agreement of up to $1,250 million. In addition, in connection with the closing of the Vitro Acquisition on September 1, 2015, the Company entered into the First Incremental Amendment to the Agreement (the "Incremental Amendment") pursuant to which the Company incurred $1,250 million of senior secured

incremental term loan facilities, comprised of (i) a $675 million term loan A facility (the "incremental term loan A facility") on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Agreement and (ii) a $575 million term loan B facility (the "incremental term loan B facility") maturing seven years after the closing of the Vitro Acquisition using its incremental capacity under the Agreement.

At December 31, 2015, the Agreement, as amended by Amendment No. 2 and the Incremental Amendment (the "Amended Agreement"), includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,546 million net of debt issuance costs), and a €279 million term loan A facility ($301 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. The Amended Agreement also includes a $575 million term loan B facility ($563 million net of debt issuance costs) with a final maturity date of September 1, 2022. At December 31, 2015, the Company had unused credit of $872 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2015 was 2.37%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial maintenance covenant, a Total Leverage Ratio, that requires the Company as of the last day of a fiscal quarter not to exceed a ratio of 4.0x calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The maximum Total Leverage Ratio is subject to an increase of 0.5x for the four fiscal quarters commencing on and following the consummation of certain qualifying acquisitions as defined in the Amended Agreement. In connection with the Vitro Acquisition on September 1, 2015, the Company elected to increase such maximum Total Leverage Ratio to 4.5x for the four fiscal quarters ending June 30, 2016. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum.

On February 3, 2016, the Company entered into Amendment No. 4 ("Amendment No. 4") to the Amended Agreement, which provided for an increase in the maximum Total Leverage Ratio for purposes of the financial covenant in the Amended Agreement to 5.0x for the fiscal quarters ending March 31, 2016, June 30, 2016 and September 30, 2016, 4.50x for the fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and stepping back down to 4.0x for the fiscal quarter ending December 31, 2017 and each fiscal quarter ending thereafter. At December 31, 2015, the Company's Total Leverage Ratio was 4.0x, which was below the 4.5x specified maximum level at that date. The Company expects its Total Leverage Ratio to increase in the first three quarters of 2016, yet remain below the amended levels stated above, due to seasonal working capital requirements.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement as amended by Amendment No. 4. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement as amended by Amendment No. 4 and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2015, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement as amended by Amendment No. 4 will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage

Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio. The applicable margin for the term loan B facility is 2.75% for Eurocurrency Rate loans and 1.75% for Base Rate loans. The incremental term loan B facility is subject to a LIBOR floor of 0.75%.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company for the term of the Amended Agreement.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022 (the "Senior Notes due 2022"). The Company also issued senior notes with a face value of $300 million that bear interest at 5.375% and are due January 15, 2025 (together with the Senior Notes due 2022, the "2014 Senior Notes"). The 2014 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2014 Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase $611 million aggregate principal amount of the Company's 3.00% 2015 Exchangeable Senior Notes. The remaining balance of the Exchangeable Senior Notes was repaid in the second quarter of 2015.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines. Information related to the Company's accounts receivable securitization program as of December 31, 2015 and 2014 is as follows:

	2015	2014
Balance (included in short-term loans)	$ 158	$ 122
Weighted average interest rate	1.21 %	1.41 %

Cash Flows

Free cash flow was $210 million for 2015 compared to $329 million for 2014. The Company defines free cash flow as cash provided by continuing operating activities less additions to property, plant and equipment. Free cash flow does not conform to U.S. GAAP and should not be construed as an alternative to the cash flow measures reported in accordance with U.S. GAAP. The Company uses free cash flow for internal reporting, forecasting and budgeting and believes this information allows the board of directors, management, investors and

analysts to better understand the Company's financial performance. Free cash flow for the years ended December 31, 2015 and 2014 is calculated as follows (dollars in millions):

	2015	2014
Cash provided by continuing operating activities	$ 612	$ 698
Additions to property, plant and equipment	(402)	(369)
Free cash flow	$ 210	$ 329

Operating activities: Cash provided by continuing operating activities was $612 million for 2015 compared to $698 million for 2014. The decrease in cash provided by continuing operating activities in 2015 was primarily due to lower earnings. Lower working capital benefited cash provided by continuing operating activities by $88 million in 2015 compared to 2014, primarily due to an increase in accounts payable.

Lower year-over-year pension contributions, asbestos-related payments, and cash paid for restructuring activities also benefited cash provided by continuing operating activities in 2015 compared to 2014. In addition, the Company experienced a $71 million year-over-year decline in cash paid for non-current assets and liabilities in 2015 compared to 2014. This decrease was primarily due to less cash paid for returnable packaging and installment payments related to a non-income tax assessment that was resolved with a foreign tax authority in 2015.

Investing activities: Cash utilized in investing activities was $2,748 million for 2015 compared to $455 million for 2014. Capital spending for property, plant and equipment during 2015 was $402 million, compared with $369 million in the prior year, reflecting higher spending for the construction of a new furnace in Mexico.

Investing activities in 2015 also included $2,351 million paid for acquisitions, primarily related to the Vitro Acquisition. Investing activities in 2014 included $114 million paid for acquisitions, primarily related to the Company's investment in a joint venture with Constellation Brands, Inc. (NYSE: STZ) ("Constellation") to operate and expand a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant from one furnace to four over the next three years. The Company contributed an additional $20 million to this joint venture in 2015 and expects to contribute approximately $140 million through 2017 for the joint venture's future expansion plans.

Financing activities: Cash provided by financing activities was $2,057 million for 2015 compared to $70 million of cash utilized for 2014. Financing activities in 2015 included additions to long-term debt of $4,538 million, primarily related to the borrowings for the Vitro Acquisition and the refinancing of the Company's Senior Secured Credit Facility. Financing activities in 2015 also included the repayment of long-term debt of $2,321, which includes the repayment of the Previous Agreement and the repayment of the senior notes due in 2016. Borrowings under short-term loans increased by $51 million in 2015. The Company paid approximately $90 million in note repurchase premiums and finance fees in 2015 compared to $11 million in 2014.

The Company paid $22 million and $37 million in distributions to noncontrolling interests in 2015 and 2014, respectively. The Company also repurchased shares of its common stock for $100 million in 2015 compared to $32 million repurchased in 2014. The repurchases were completed using cash on hand and included an accelerated share repurchase program. Additional details about the Company's share repurchase activities are provided in Note 17 to the Consolidated Financial Statements.

The Company anticipates that cash flows from its operations and from utilization of credit available under the Agreement will be sufficient to fund its operating and seasonal working capital needs, debt service and other obligations on a short-term (twelve months) and long-term basis. Based on the Company's expectations regarding future payments for lawsuits and claims and also based on the Company's expected operating cash flow, the Company believes that the payment of any deferred amounts of previously settled or otherwise determined lawsuits and claims, and the resolution of presently pending and anticipated future lawsuits and claims associated with asbestos, will not have a material adverse effect upon the Company's liquidity on a short-term or long-term basis.

Contractual Obligations and Off-Balance Sheet Arrangements

The following information summarizes the Company's significant contractual cash obligations at December 31, 2015 (dollars in millions).

	Payments due by period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Contractual cash obligations:					
Long-term debt	$ 5,351	$ 57	$ 432	$ 2,189	$ 2,673
Capital lease obligations	62	11	12	13	26
Operating leases	405	82	151	130	42
Interest(1)	1,442	237	468	362	375
Purchase obligations(2)	2,038	643	777	140	478
Pension benefit plan contributions(3)	25	25			
Postretirement benefit plan benefit payments(1)	104	11	22	22	49
Equity affiliate investment obligation(4)	140	80	60		
Total contractual cash obligations	$ 9,567	$ 1,146	$ 1,922	$ 2,856	$ 3,643

	Amount of commitment expiration per period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Other commercial commitments:					
Standby letters of credit	$ 28	$ 28	$ —	$ —	$ —
Total commercial commitments	$ 28	$ 28	$ —	$ —	$ —

(1) Amounts based on rates and assumptions at December 31, 2015.

(2) The Company's purchase obligations consist principally of contracted amounts for energy and molds. In cases where variable prices are involved, current market prices have been used. The amount above does not include ordinary course of business purchase orders because the majority of such purchase orders may be canceled. The Company does not believe such purchase orders will adversely affect its liquidity position.

(3) In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $25 million in 2016. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly.

(4) In 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant from one furnace to four over the next three years. The Company expects to contribute approximately $140 million for the joint venture's expansion plans through 2017.

The Company is unable to make a reasonably reliable estimate as to when cash settlement with taxing authorities may occur for its unrecognized tax benefits. Therefore, the liability for unrecognized tax benefits is not included in the table above. See Note 10 to the Consolidated Financial Statements for additional information.

Critical Accounting Estimates

The Company's analysis and discussion of its financial condition and results of operations are based upon its consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The Company evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical and other

factors believed to be reasonable under the circumstances at the time the financial statements are issued. The results of these estimates may form the basis of the carrying value of certain assets and liabilities and may not be readily apparent from other sources. Actual results, under conditions and circumstances different from those assumed, may differ from estimates.

The impact of, and any associated risks related to, estimates and assumptions are discussed within Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in the Notes to the Consolidated Financial Statements, if applicable, where estimates and assumptions affect the Company's reported and expected financial results.

The Company believes that accounting for property, plant and equipment, impairment of long-lived assets, pension benefit plans, contingencies and litigation related to asbestos liability, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements.

Property, Plant and Equipment

The net carrying amount of property, plant and equipment ("PP&E") at December 31, 2015 totaled $3 billion, representing 31% of total assets. Depreciation expense during 2015 totaled $323 million, representing approximately 6% of total costs of goods sold. Given the significance of PP&E and associated depreciation to the Company's consolidated financial statements, the determinations of an asset's cost basis and its economic useful life are considered to be critical accounting estimates.

Cost Basis—PP&E is recorded at cost, which is generally objectively quantifiable when assets are purchased individually. However, when assets are purchased in groups, or as part of a business, costs assigned to PP&E are based on an estimate of fair value of each asset at the date of acquisition. These estimates are based on assumptions about asset condition, remaining useful life and market conditions, among others. The Company frequently employs expert appraisers to aid in allocating cost among assets purchased as a group.
Included in the cost basis of PP&E are those costs which substantially increase the useful lives or capacity of existing PP&E. Significant judgment is needed to determine which costs should be capitalized under these criteria and which costs should be expensed as a repair or maintenance expenditure. For example, the Company frequently incurs various costs related to its existing glass melting furnaces and forming machines and must make a determination of which costs, if any, to capitalize. The Company relies on the experience and expertise of its operations and engineering staff to make reasonable and consistent judgments regarding increases in useful lives or capacity of PP&E.

Estimated Useful Life—PP&E is generally depreciated using the straight-line method, which deducts equal amounts of the cost of each asset from earnings each period over its estimated economic useful life. Economic useful life is the duration of time an asset is expected to be productively employed by the Company, which may be less than its physical life. Management's assumptions regarding the following factors, among others, affect the determination of estimated economic useful life: wear and tear, product and process obsolescence, technical standards, and changes in market demand.

The estimated economic useful life of an asset is monitored to determine its appropriateness, especially in light of changed business circumstances. For example, technological advances, excessive wear and tear, or changes in customers' requirements may result in a shorter estimated useful life than originally anticipated. In these cases, the Company depreciates the remaining net book value over the new estimated remaining life, thereby increasing depreciation expense per year on a prospective basis. Likewise, if the estimated useful life is increased, the adjustment to the useful life decreases depreciation expense per year on a prospective basis. Changes in economic useful life assumptions did not have a material impact on the Company's reported results in 2015, 2014 or 2013.

Impairment of Long-Lived Assets

Property, Plant and Equipment—The Company tests for impairment of PP&E whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. PP&E held for use in the Company's business is grouped for impairment testing at the lowest level for which cash flows can reasonably be

identified, typically a segment or a component of a segment. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. PP&E held for sale is reported at the lower of carrying amount or fair value less cost to sell.

Impairment testing requires estimation of the fair value of PP&E based on the discounted value of projected future cash flows generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include, among other things: industry and market conditions, sales volume and prices, production costs and inflation. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The Company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

Goodwill –Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as projected future cash flows of the reporting units, discount rates, and terminal business value, and are classified as Level 3 in the fair value hierarchy. The Company's projected future cash flows incorporates management's best estimates of the expected future results including, but not limited to, price trends, customer demand, material costs, asset replacement costs and any other known factors.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment, also known as a component. Two or more components of an operating segment shall be aggregated into a single reporting unit if the components have similar economic characteristics, based on an assessment of various factors. The Company has determined that the Europe and North America segments are reporting units. The Company aggregated the components of the Latin America and Asia Pacific segments into single reporting units equal to the reportable segments. The aggregation of the components of these segments was based on their economic similarity as determined by the Company using a number of quantitative and qualitative factors, including gross margins, the manner in which the Company operates the business, the consistent nature of products, services, production processes, customers and methods of distribution, as well as the level of shared resources and assets between the components.

During the fourth quarter of 2015, the Company completed its annual impairment testing and determined that no impairment of goodwill existed. Goodwill at December 31, 2015 totaled $2.5 billion, representing 26% of total assets. The Company has four reporting units of which three of the reporting units have goodwill and include; $840 million of recorded goodwill to the Company's Europe segment, $624 million of recorded goodwill to the Company's Latin America segment and $1 billion of recorded goodwill to the Company's North America segment. The testing performed as of October 1, 2015, indicated a significant excess of BEV over book value for North America. Both Europe and Latin America exceeded their carrying values by approximately 11% and 20%, respectively, and are determined to be the reporting units having the greatest risk of future impairment if actual results fall modestly short of expectations. If the Company's projected future cash flows were substantially lower, or if the assumed weighted average cost of capital was substantially higher, the testing performed as of October 1, 2015, may have indicated an impairment of one or more of these reporting units and, as a result, the related goodwill may also have been impaired. Any impairment charges that the Company may take in the future could be material to its consolidated results of operations and financial condition. However, less significant changes in projected future cash flows or the assumed weighted average cost of capital would not have indicated an impairment. For example, if projected future cash flows had been decreased by 5%, or if the weighted average

cost of capital had been increased by 5%, or both, the resulting lower BEV's would still have exceeded the book value of each of these reporting units.

During the time subsequent to the annual evaluation, and at December 31, 2015, the Company considered whether any events and/or changes in circumstances had resulted in the likelihood that the goodwill of any of its reporting units may have been impaired and has determined that no such events have occurred. The Company will monitor conditions throughout 2016 that might significantly affect the projections and variables used in the impairment test to determine if a review prior to October 1 may be appropriate. If the results of impairment testing confirm that a write down of goodwill is necessary, then the Company will record a charge in the fourth quarter of 2016, or earlier if appropriate. In the event the Company would be required to record a significant write down of goodwill, the charge would have a material adverse effect on reported results of operations and net worth.

Other Long-Lived Assets - Intangibles – Other long-lived assets consist primarily of purchased customer relationships intangibles and are amortized using the accelerated amortization method over their estimated useful lives. The Company reviews these assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. In the event that a decline in fair value of an asset occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. The test for impairment would require the Company to make estimates about fair value, which may be determined based on discounted cash flows, third party appraisals or other methods that provide appropriate estimates of value. The Company continually monitors the carrying value of their assets.

Pension Benefit Plans

Significant Estimates—The determination of pension obligations and the related pension expense or credits to operations involves significant estimates. The most significant estimates are the discount rate used to calculate the actuarial present value of benefit obligations and the expected long-term rate of return on plan assets. The Company uses discount rates based on yields of high quality fixed rate debt securities at the end of the year. At December 31, 2015, the weighted average discount rate was 4.43% and 3.82% for U.S. and non-U.S. plans, respectively. The Company uses an expected long-term rate of return on assets that is based on both past performance of the various plans' assets and estimated future performance of the assets. Due to the nature of the plans' assets and the volatility of debt and equity markets, actual returns may vary significantly from year to year. The Company refers to average historical returns over longer periods (up to 10 years) in determining its expected rates of return because short-term fluctuations in market values do not reflect the rates of return the Company expects to achieve based upon its long-term investing strategy. For purposes of determining pension charges and credits in 2015, the Company's estimated weighted average expected long-term rate of return on plan assets is 8.00% for U.S. plans and 7.21% for non-U.S. plans compared to 8.00% for U.S. plans and 7.23% for non-U.S. plans in 2014. The Company recorded pension expense from continuing operations of $24 million, $19 million, and $60 million for the U.S. plans in 2015, 2014 and 2013, respectively, and $7 million, $24 million, and $41 million for the non-U.S. plans in 2015, 2014, and 2013, respectively from its principal defined benefit pension plans. Depending on currency translation rates, the Company expects to record approximately $29 million of total pension expense for the full year of 2016. The 2016 pension expense will reflect a 7.5% expected long-term rate of return for the U.S. assets.

Future effects on reported results of operations depend on economic conditions and investment performance. For example, a one-half percentage point change in the actuarial assumption regarding discount rates or in the expected rate of return used to calculate plan liabilities would result in a change of approximately $8 million and $15 million, respectively, in the pretax pension expense for the full year 2016.

Recognition of Funded Status—The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average

remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

Contingencies and Litigation Related to Asbestos Liability

The Company conducts a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its annual comprehensive legal review, the Company provides historical claims filing data to a third party consultant with expertise in predicting future claims filings based on actuarial inputs, such as the impact of disease incidence and mortality. The Company uses these estimates of total future claims, along with its legal judgment regarding an estimation of future disposition costs and related legal costs, as inputs to develop a reasonable estimate of probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions and legal judgments underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

As noted above, the Company's asbestos-related liability is based on a projection of new claims that will eventually be filed against the Company and the estimated average disposition cost of these claims and related legal costs. Changes in the significant assumptions noted above have the potential to impact these key factors, which are critical to the estimation of the Company's asbestos-related liability.

If trends relating to the Company's actual claims filings materially differ, up or down, from the amounts predicted, the total number of estimated claims indicated by future actuarial analyses could change significantly. Significant changes in the total number of predicted claims could impact the total predicted asbestos-related liability, which in turn could result in a material charge or credit to the Company's results of operations.

The Company uses historical data for both indemnity and related legal costs, as well as its legal judgment and expectations about future inflationary and deflationary drivers, to predict the estimated disposition cost per claim and the legal costs for the remainder of the litigation. If trends relating to the actual per claim cost differ materially, up or down, from the previously estimated amount, the Company may in the future revise its prediction of per claim cost. The same may also be true with respect to legal costs. Significant changes in the projected cost per claim or legal costs could impact the total predicted asbestos-related liability, which in turn could result in a material charge or credit to the Company's results of operations.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $817 million as of December 31, 2015. The Company estimates that reasonably possible losses could be as high as $950 million. This estimate of additional reasonably possible loss reflects a legal judgment about the number and cost of potential future claims. The Company believes this estimate is consistent with the level of variability it has experienced when comparing actual results

to recent near-term projections. However, it is also possible that the ultimate asbestos-related liability could be above this estimate.

Income Taxes

The Company accounts for income taxes as required by general accounting principles under which management judgment is required in determining income tax expense and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. Tax assessments may arise several years after tax returns have been filed. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using enacted tax rates and for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are determined separately for each tax jurisdiction in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards;
- taxable income in prior carryback years; and
- tax planning strategies

The assessment regarding whether a valuation allowance is required or should be adjusted also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of recent losses;
- duration of statutory carryforward periods;
- historical experience with tax attributes expiring unused; and
- near- and medium-term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last three years and current year anticipated results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company

considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

The utilization of tax attributes to offset taxable income reduces the overall level of deferred tax assets subject to a valuation allowance. Additionally, the Company's recorded effective tax rate is lower than the applicable statutory tax rate, due primarily to income earned in jurisdictions for which a valuation allowance is recorded. The effective tax rate will approach the statutory tax rate in periods after valuation allowances are released. In the period in which valuation allowances are released, the Company will record a material tax benefit, which could result in a negative effective tax rate.

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Market risks relating to the Company's operations result primarily from fluctuations in foreign currency exchange rates, changes in interest rates, and changes in commodity prices, principally energy and soda ash. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates. The Company also uses certain derivative instruments to mitigate a portion of the risk associated with fluctuating energy prices in its North American region. These instruments carry varying degrees of counterparty credit risk. To mitigate this risk, the Company has defined a financial counterparty policy that established criteria to select qualified counterparties based on credit ratings and CDC spreads. The policy also limits the exposure with individual counterparties. The Company monitors these exposures quarterly. The Company does not enter into derivative financial instruments for trading purposes.

Foreign Currency Exchange Rate Risk

Earnings of operations outside the United States

A substantial portion of the Company's operations are conducted by subsidiaries outside the U.S. The primary international markets served by the Company's subsidiaries are in Canada, Australia, China, Latin America (principally Brazil, Colombia, and Mexico), and Europe (principally France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom,). In general, revenues earned and costs incurred by the Company's major international operations are denominated in their respective local currencies. Consequently, the Company's reported financial results could be affected by factors such as changes in foreign currency exchange rates or highly inflationary economic conditions in the international markets in which the Company's subsidiaries operate. When the U.S. dollar strengthens against foreign currencies, the reported U.S. dollar value of local currency earnings generally decreases; when the U.S. dollar weakens against foreign currencies, the reported U.S. dollar value of local currency earnings generally increases. For the years ended December 31, 2015, 2014, and 2013, the Company did not have any significant foreign subsidiaries whose functional currency was the U.S. dollar.

Borrowings not denominated in the functional currency

Because the Company's subsidiaries operate within their local economic environment, the Company believes it is appropriate to finance those operations with borrowings denominated in the local currency to the extent practicable where debt financing is desirable or necessary. This strategy mitigates the risk of reported losses or gains in the event the foreign currency strengthens or weakens against the U.S. dollar. Considerations which influence the amount of such borrowings include long- and short-term business plans, tax implications, and the availability of borrowings with acceptable interest rates and terms.

Available excess funds of a subsidiary may be redeployed through intercompany loans to other subsidiaries for debt repayment, capital investment, or other cash requirements. The intercompany loans give rise to foreign currency exchange rate risk, which the Company mitigates through the use of forward exchange contracts that effectively swap the intercompany loan and related interest to the appropriate local currency.

The Company believes the near term exposure to foreign currency exchange rate risk of its foreign currency risk sensitive instruments was not material at December 31, 2015 and 2014.

Interest Rate Risk

The Company's interest expense is most sensitive to changes in the general level of interest rates applicable to the term loans under its Secured Credit Agreement (see Note 11 to the Consolidated Financial Statements for further information). The Company's interest rate risk management objective is to limit the impact of interest rate changes on net income and cash flow, while minimizing interest payments and expense. To achieve this objective, the Company regularly evaluates its mix of fixed and floating-rate debt, and, from time to time, may enter into interest rate swap agreements.

The following table provides information about the Company's interest rate sensitivity related to its significant debt obligations at December 31, 2015. The table presents principal cash flows and related weighted-average interest rates by expected maturity date.

(Dollars in millions)	2016	2017	2018	2019	2020	There-after	Total	Fair Value at 12/31/2015
Long-term debt at variable rate:								
Principal by expected maturity	$ 217	$ 78	$ 101	$ 100	$ 1,543	$ 545	$ 2,584	$ 2,584
Avg. principal outstanding	$ 2,475	$ 2,328	$ 2,239	$ 2,138	$ 1,317	$ 273		
Avg. interest rate	2.37 %	2.37 %	2.37 %	2.37 %	2.37 %	2.37 %		
Long-term debt at fixed rate:								
Principal by expected maturity	$ 11	$ 7	$ 258	$ 8	$ 550	$ 2,156	$ 2,989	$ 3,183
Avg. principal outstanding	$ 2,984	$ 2,984	$ 2,734	$ 2,734	$ 2,191	$ 1,824		
Avg. interest rate	5.92 %	5.92 %	5.74 %	5.74 %	5.50 %	5.62 %		

The Company believes the near term exposure to interest rate risk of its debt obligations has not changed materially since December 31, 2015.

In addition, the determination of pension obligations and the related pension expense or credits to operations involves significant estimates. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly. The discount rate is a significant estimate that is used to calculate the actuarial present value of benefit obligations and is based on yields of high quality fixed rate debt securities at the end of the year. For example, a one-half percentage point change in the actuarial assumption regarding discount rates or in the expected rate of return used to calculate plan liabilities would result in a change of approximately $8 million and $15 million, respectively, in the pretax pension expense for the full year 2016.

Commodity Price Risk

The Company has exposure to commodity price risk, principally related to energy. In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2015, the Company had entered into commodity forward contracts covering approximately 7,300,000 MM BTUs, primarily related to customer requests to lock the price of natural gas. In Europe, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of 3 years or less.

The Company believes the near term exposure to commodity price risk of its commodity forward contracts was not material at December 31, 2015.

Forward Looking Statements

This document contains "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934 and Section 27A of the Securities Act of 1933. Forward-looking statements reflect the Company's current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words “believe,” “expect,” “anticipate,” “will,” “could,” “would,” “should,” “may,” “plan,” “estimate,” “intend,” “predict,” “potential,” “continue,” and the negatives of these words and other similar expressions generally identify forward looking statements. It is possible the Company's future financial performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) the Company’s ability to integrate the Vitro Business in a timely and cost effective manner, to maintain on existing terms the permits, licenses and other approvals required for the Vitro Business to operate as currently operated, and to realize the expected synergies from the Vitro Acquisition, (2) risks related to the impact of integration of the Vitro Acquisition on earnings and cash flow, (3) risks associated with the significant transaction costs and additional indebtedness that the Company incurred in financing the Vitro Acquisition, (4) the Company’s ability to realize expected growth opportunities and cost savings from the Vitro Acquisition, (5) foreign currency fluctuations relative to the U.S. dollar, specifically the Euro, Brazilian real, Mexican peso, Colombian peso and Australian dollar, (6) changes in capital availability or cost, including interest rate fluctuations and the ability of the Company to refinance debt at favorable terms, (7) the general political, economic and competitive conditions in markets and countries where the Company has operations, including uncertainties related to economic and social conditions, disruptions in capital markets, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, and changes in tax rates and laws, (8) consumer preferences for alternative forms of packaging, (9) cost and availability of raw materials, labor, energy and transportation, (10) the Company’s ability to manage its cost structure, including its success in implementing restructuring plans and achieving cost savings, (11) consolidation among competitors and customers, (12) the ability of the Company to acquire businesses and expand plants, integrate operations of acquired businesses and achieve expected synergies, (13) unanticipated expenditures with respect to environmental, safety and health laws, (14) the Company’s ability to further develop its sales, marketing and product development capabilities, (15) the timing and occurrence of events which are beyond the control of the Company, including any expropriation of the Company’s operations, floods and other natural disasters, events related to asbestos-related claims, (16) the Company’s ability to accurately estimate its total asbestos-related liability, and (17) the Company’s ability to successfully remediate the material weakness in its internal control over financial reporting, and the other risk factors discussed in this Annual Report on Form 10-K/A for the year ended December 31, 2015 and any subsequently filed Quarterly Report on Form 10-Q. It is not possible to foresee or identify all such factors. Any forward-looking statements in this document are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company's results of operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward-looking statements contained in this document.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2015 and 2014, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2015. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Illinois, Inc. at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, the financial statements and the financial statement schedule listed in the Index at Item 15 have been restated to correct an error related to the Company’s determination of liabilities related to probable losses for unasserted asbestos claims.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 16, 2016, except for the effect of the material weakness described in the seventh paragraph as to which the date is May 13, 2016, expressed an adverse opinion thereon.

/s/ Ernst & Young LLP
Toledo, Ohio
February 16, 2016, except for Note 1 of the consolidated financial statements, as to which the date is May 13, 2016

Owens-Illinois, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions, except per share amounts

Years ended December 31,	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Net sales	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold	(5,046)	(5,531)	(5,636)
Gross profit	1,110	1,253	1,331
Selling and administrative expense	(476)	(523)	(506)
Research, development and engineering expense	(64)	(63)	(62)
Interest expense, net	(251)	(230)	(229)
Equity earnings	60	64	67
Other expense, net	(111)	(194)	(133)
Earnings from continuing operations before income taxes	268	307	468
Provision for income taxes	(106)	(92)	(120)
Earnings from continuing operations	162	215	348
Loss from discontinued operations	(4)	(23)	(18)
Net earnings	158	192	330
Net (earnings) attributable to noncontrolling interests	(23)	(28)	(13)
Net earnings attributable to the Company	$ 135	$ 164	$ 317
Amounts attributable to the Company:			
Earnings from continuing operations	$ 139	$ 187	$ 335
Loss from discontinued operations	(4)	(23)	(18)
Net earnings	$ 135	$ 164	$ 317
Basic earnings per share:			
Earnings from continuing operations	$ 0.86	$ 1.14	$ 2.03
Loss from discontinued operations	(0.03)	(0.14)	(0.11)
Net earnings	$ 0.83	$ 1.00	$ 1.92
Diluted earnings per share:			
Earnings from continuing operations	$ 0.85	$ 1.13	$ 2.02
Loss from discontinued operations	(0.03)	(0.14)	(0.11)
Net earnings	$ 0.82	$ 0.99	$ 1.91

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Net earnings	$ 158	$ 192	$ 330
Other comprehensive income:			
Foreign currency translation adjustments	(529)	(305)	(232)
Pension and other postretirement benefit adjustments, net of tax	(4)	(90)	609
Change in fair value of derivative instruments, net of tax	(6)	1	2
Other comprehensive income (loss)	(539)	(394)	379
Total comprehensive income (loss)	(381)	(202)	709
Comprehensive income attributable to noncontrolling interests	(7)	(7)	(7)
Comprehensive income attributable to the Company	$ (388)	$ (209)	$ 702

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2015 (restated[1])	2014 (restated[1])
Assets		
Current assets:		
Cash and cash equivalents	$ 399	$ 512
Trade receivables, net of allowances of $29 million and $34 million at December 31, 2015 and 2014, respectively	562	550
Inventories	1,007	1,035
Prepaid expenses and other current assets	366	274
Total current assets	2,334	2,371
Other assets:		
Equity investments	409	427
Pension assets	32	22
Other assets	599	685
Intangibles	597	
Goodwill	2,489	1,893
Total other assets	4,126	3,027
Property, plant and equipment:		
Land, at cost	252	226
Buildings and equipment, at cost:		
Buildings and building equipment	1,123	1,097
Factory machinery and equipment	4,526	4,302
Transportation, office and miscellaneous equipment	88	105
Construction in progress	238	161
	6,227	5,891
Less accumulated depreciation	3,266	3,446
Net property, plant and equipment	2,961	2,445
Total assets	$ 9,421	7,843

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS (continued)

Dollars in millions, except per share amounts

December 31,	2015 (restated[1])	2014 (restated[1])
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable	$ 1,212	$ 1,137
Salaries and wages	145	145
U.S. and foreign income taxes	36	43
Current portion of asbestos-related liabilities	130	143
Other accrued liabilities	371	372
Short-term loans	160	127
Long-term debt due within one year	68	361
Total current liabilities	2,122	2,328
Long-term debt	5,345	2,957
Deferred taxes	124	121
Pension benefits	504	465
Nonpension postretirement benefits	155	178
Other liabilities	205	227
Asbestos-related liabilities	687	796
Commitments and contingencies		
Share owners' equity:		
Share owners' equity of the Company:		
Common stock, par value $.01 per share, 250,000,000 shares authorized, 184,480,646 and 183,915,370 shares issued (including treasury shares), respectively	2	2
Capital in excess of par value	3,064	3,066
Treasury stock, at cost, 23,519,049 and 19,718,055 shares, respectively	(573)	(480)
Retained loss	(305)	(440)
Accumulated other comprehensive loss	(2,017)	(1,494)
Total share owners' equity of the Company	171	654
Noncontrolling interests	108	117
Total share owners' equity	279	771
Total liabilities and share owners' equity	$ 9,421	$ 7,843

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owners' Equity of the Company						
	Common Stock	Capital in Excess of Par Value	Treasury Stock	Retained Loss (restated[1])	Accumulated Other Comprehensive Loss	Non-controlling Interests	Total Share Owners' Equity (restated[1])
Balance on January 1, 2013	$ 2	$ 3,005	$ (425)	$ (921)	$ (1,506)	$ 174	$ 329
Issuance of common stock (1.4 million shares)		25					25
Reissuance of common stock (0.2 million shares)			4				4
Treasury shares purchased (1.1 million shares)			(33)				(33)
Repurchase of exchangeable notes		(1)					(1)
Stock compensation		11					11
Net earnings				317		13	330
Other comprehensive income (loss)					385	(6)	379
Distributions to noncontrolling interests						(22)	(22)
Contribution from noncontrolling interests						5	5
Deconsolidation of subsidiary						(17)	(17)
Balance on December 31, 2013	2	3,040	(454)	(604)	(1,121)	147	1,010
Issuance of common stock (0.3 million shares)		5					5
Reissuance of common stock (0.2 million shares)			6				6
Treasury shares purchased (1.1 million shares)			(32)				(32)
Stock compensation		21					21
Net earnings				164		28	192
Other comprehensive income (loss)					(373)	(21)	(394)
Distributions to noncontrolling interests						(37)	(37)
Balance on December 31, 2014	2	3,066	(480)	(440)	(1,494)	117	771
Issuance of common stock (0.2 million shares)		1					1
Reissuance of common stock (0.3 million shares)			7				7
Treasury shares purchased (4.1 million shares)			(100)				(100)
Stock compensation		15					15
Net earnings				135		23	158
Other comprehensive income (loss)					(523)	(16)	(539)
Distributions to noncontrolling interests						(22)	(22)
Acquisitions of noncontrolling interests		(18)				6	(12)
Balance on December 31, 2015	$ 2	$ 3,064	$ (573)	$ (305)	$ (2,017)	$ 108	$ 279

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.
CONSOLIDATED CASH FLOWS
Dollars in millions

Years ended December 31,	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Operating activities:			
Net earnings	$ 158	$ 192	$ 330
Loss from discontinued operations	4	23	18
Non-cash charges (credits):			
Depreciation	323	335	350
Amortization of intangibles and other deferred items	86	83	47
Amortization of finance fees and debt discount	15	30	32
Deferred tax provision (benefit)	12	(18)	(3)
Pension expense	31	43	101
Restructuring, asset impairment and related charges	63	76	119
Pension settlement charges		65	
Non-income tax charge		69	
Asbestos-related costs	16	46	12
Acquisition-related fair value inventory adjustments	22		
Acquisition-related fair value intangible adjustments	10		
Other	108	73	52
Pension contributions	(17)	(28)	(96)
Asbestos-related payments	(138)	(148)	(158)
Cash paid for restructuring activities	(38)	(58)	(78)
Change in non-current assets and liabilities	(131)	(202)	(150)
Change in components of working capital	88	117	124
Cash provided by continuing operating activities	612	698	700
Cash utilized in discontinued operating activities	(4)	(23)	(18)
Total cash provided by operating activities	608	675	682
Investing activities:			
Additions to property, plant and equipment	(402)	(369)	(361)
Acquisitions, net of cash acquired	(2,351)	(114)	(4)
Net cash proceeds related to sale of assets and other	1	19	11
Net foreign exchange derivative activity	4		
Net activity for non-controlling partner loans		9	(16)
Deconsolidation of subsidiary			(32)
Cash utilized in investing activities	(2,748)	(455)	(402)
Financing activities:			
Additions to long-term debt	4,538	1,247	768
Repayments of long-term debt	(2,321)	(1,101)	(1,040)
Increase (decrease) in short-term loans	51	(139)	8
Payment of finance fees	(90)	(11)	(7)
Distributions paid to noncontrolling interests	(22)	(37)	(22)
Treasury shares purchased	(100)	(32)	(33)
Contribution from noncontrolling interests			5
Issuance of common stock and other	1	3	
Cash provided by (utilized in) financing activities	2,057	(70)	(321)
Effect of exchange rate fluctuations on cash	(30)	(21)	(7)
Increase (decrease) in cash	(113)	129	(48)
Cash and cash equivalents at beginning of period	512	383	431
Cash and cash equivalents at end of period	$ 399	$ 512	$ 383

(1) Certain amounts have been restated to reflect adjustments related to the correction of an error (see Note 1 to the Consolidated Financial Statements for additional information).

See accompanying Notes to the Consolidated Financial Statements.

1. Restatement of Consolidated Financial Statements

In April 2016, the Company determined that it had incorrectly applied the provisions of ASC 450, *Contingencies*, in measuring its liability related to unasserted claims and related legal costs arising from the Company's previous sale of products containing asbestos (see Note 12).

Beginning in 2003, the Company had estimated its asbestos-related liability based on an analysis of how far in the future it could reasonably estimate the number of claims it would receive. Subsequent to the filing of its Annual Report on Form 10-K for the year ended December 31, 2015 ("2015 Annual Report"), the Company has concluded that its method for estimating its future asbestos-related liability was not consistent with ASC 450. Therefore, with the assistance of an external consultant, and utilizing a model with actuarial inputs, the Company has developed a new method for reasonably estimating its total asbestos-related liability. See Note 12 for additional detail. Using the new model, the Company calculated a total asbestos-related liability of $817 million as of December 31, 2015, which is $295 million higher than previously calculated. The revised liability is reflected in the balance sheet as of December 31, 2015. Using the same model with actuarial inputs, the Company also revised its total asbestos-related liability as of December 31, 2014 to $939 million.

In light of the foregoing, the Company is amending its 2015 Annual Report to restate the financial statements contained therein to reflect the effects of its new method for estimating its total asbestos-related liability and to make certain corresponding disclosures related thereto.

The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its comprehensive annual review, the Company will in the future estimate its total asbestos-related liability and such reviews may result in adjustments to the liability.

The Consolidated Balance Sheets, Consolidated Results of Operations, Consolidated Statement of Comprehensive Income, Consolidated Statement of Share Owners' Equity, and Consolidated Statement of Cash Flows, Notes 2, 10, 12, 15, 17, 20 and 22, as well as Financial Statement Schedule II were updated to reflect the restatement.

1. Restatement of Consolidated Financial Statements (Continued)

The following tables identify each financial statement line item affected by the restatement.

CONSOLIDATED RESULTS OF OPERATIONS
Dollars in millions, except per share amounts

Years ended December 31,	2015			2014			2013		
	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated
Other expense, net	$ (320)	$ 209	$ (111)	$ (283)	$ 89	$ (194)	$ (266)	$ 133	$ (133)
Earnings from continuing operations before income taxes	59	209	268	218	89	307	335	133	468
Provision for income taxes	(106)		(106)	(92)		(92)	(120)		(120)
Earnings (loss) from continuing operations	(47)	209	162	126	89	215	215	133	348
Loss from discontinued operations	(4)		(4)	(23)		(23)	(18)		(18)
Net earnings (loss)	(51)	209	158	103	89	192	197	133	330
Net earnings attributable to noncontrolling interests	(23)		(23)	(28)		(28)	(13)		(13)
Net earnings (loss) attributable to the Company	$ (74)	$ 209	$ 135	$ 75	$ 89	$ 164	$ 184	$ 133	$ 317
Amounts attributable to the Company:									
Earnings (loss) from continuing operations	$ (70)	$ 209	$ 139	$ 98	$ 89	$ 187	$ 202	$ 133	$ 335
Loss from discontinued operations	(4)		(4)	(23)		(23)	(18)		(18)
Net earnings (loss)	$ (74)	$ 209	$ 135	$ 75	$ 89	$ 164	$ 184	$ 133	$ 317
Basic earnings per share:									
Earnings (loss) from continuing operations	$ (0.44)	$ 1.30	$ 0.86	$ 0.60	$ 0.54	$ 1.14	$ 1.22	$ 0.81	$ 2.03
Loss from discontinued operations	(0.03)		(0.03)	(0.14)		(0.14)	(0.11)		(0.11)
Net earnings (loss)	$ (0.47)	$ 1.30	$ 0.83	$ 0.46	$ 0.54	$ 1.00	$ 1.11	$ 0.81	$ 1.92
Diluted earnings per share:									
Earnings (loss) from continuing operations	$ (0.44)	$ 1.29	$ 0.85	$ 0.59	$ 0.54	$ 1.13	$ 1.22	$ 0.80	$ 2.02
Loss from discontinued operations	(0.03)		(0.03)	(0.14)		(0.14)	(0.11)		(0.11)
Net earnings (loss)	$ (0.47)	$ 1.29	$ 0.82	$ 0.45	$ 0.54	$ 0.99	$ 1.11	$ 0.80	$ 1.91

1. Restatement of Consolidated Financial Statements (Continued)

CONSOLIDATED COMPREHENSIVE INCOME
Dollars in millions

Years ended December 31,	2015			2014			2013		
	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated
Net earnings (loss)	$ (51)	$ 209	$ 158	$ 103	$ 89	$ 192	$ 197	$ 133	$ 330
Total comprehensive income (loss)	(590)	209	(381)	(291)	89	(202)	576	133	709
Comprehensive income (loss) attributable to the Company	$ (597)	$ 209	$ (388)	$ (298)	$ 89	$ (209)	$ 569	$ 133	$ 702

CONSOLIDATED BALANCE SHEETS
Dollars in millions

	Dec. 31, 2015			Dec. 31, 2014		
	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated
Asbestos-related liabilities	$ 392	$ 295	$ 687	$ 292	$ 504	$ 796
Retained loss	$ (10)	$ (295)	$ (305)	$ 64	$ (504)	$ (440)
Total share owners' equity of the Company	$ 466	$ (295)	$ 171	$ 1,158	$ (504)	$ 654
Total share owners' equity	$ 574	$ (295)	$ 279	$ 1,275	$ (504)	$ 771

CONSOLIDATED CASH FLOWS
Dollars in millions

Years ended December 31,	2015			2014			2013		
	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated
Net Earnings (loss)	$ (51)	$ 209	$ 158	$ 103	$ 89	$ 192	$ 197	$ 133	$ 330
Adjustments to reconcile net income (loss) to net cash provided by operating activities:									
Charge for asbestos-related costs	$ 225	$ (209)	$ 16	$ 135	$ (89)	$ 46	$ 145	$ (133)	$ 12

1. Restatement of Consolidated Financial Statements (Continued)

CONSOLIDATED SHARE OWNERS' EQUITY
Dollars in millions

	Retained earnings (loss)	Total share owners' equity
January 1, 2013		
As Reported	$ (195)	$ 1,055
Adjustments	(726)	(726)
As Restated	$ (921)	$ 329
December 31, 2013		
As Reported	$ (11)	$ 1,603
Adjustments	(593)	(593)
As Restated	$ (604)	$ 1,010
December 31, 2014		
As Reported	$ 64	$ 1,275
Adjustments	(504)	(504)
As Restated	$ (440)	$ 771
December 31, 2015		
As Reported	$ (10)	$ 574
Adjustments	(295)	(295)
As Restated	$ (305)	$ 279

1A. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Illinois, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Stock-Based Compensation The Company has various stock-based compensation plans consisting of stock option grants and restricted share awards. Costs resulting from all share-based compensation plans are required to be recognized in the financial statements. A public entity is required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the required service period (usually the vesting period). No compensation cost is recognized for equity instruments for which employees do not render the required service.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on

estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from short-term forward exchange contracts not designated as hedges are classified as a financing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers", which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company is currently evaluating the effect this standard will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor determined the effect of the standard on its ongoing financial reporting.

Presentation of Debt Issuance Costs - In April 2015, the FASB issued ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance Costs." This standard amends existing guidance to require the presentation of debt issuance costs in the balance sheet as a deduction from the carrying amount of the related debt liability instead of a deferred charge (asset). In the third quarter 2015, the Company elected to adopt this new guidance.

As a result of the adoption of ASU No. 2015-03 certain prior year amounts have been reclassified for consistency with the current period presentation. These reclassifications had no effect on the reported results of operations for any period. Previously, the Company had classified these debt issuance costs as an asset in “other assets”. Accordingly, the Company has revised the classification to report these debt issuance costs under the “long-term debt” caption on the balance sheet. For the period ended December 31, 2014, the total of debt issuance costs that was previously classified as “other assets” was $15 million.

Business Combinations – In September 2015, the FASB issued ASU No. 2015-16, “Simplifying the Accounting for Measurement-Period Adjustments”. This standard allows for the acquirer to recognize adjustments to provisional amounts that are identified during the measurement period in the reporting periods in which the adjustment amounts are determined. The Company elected to adopt this new guidance as of the third quarter of 2015.

Deferred Taxes – In November 2015, the FASB issued ASU No. 2015-17, “Balance Sheet Classification of Deferred Taxes”. This standard requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The Company elected to adopt this new guidance prospectively in the fourth quarter of 2015. Prior periods were not retrospectively adjusted.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company’s acquisition (the “Vitro Acquisition”) of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the “Vitro Business”) on September 1, 2015 (see Note 19), the Company has renamed the former South America segment to the Latin America segment. This change in segment name was made to reflect the addition of the Mexican and Bolivian operations from the Vitro Acquisition into the former South America segment. The acquired Vitro food and beverage glass container distribution business located in the United States is included in the North American operating segment. These four segments are aligned with the Company’s internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company’s measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company’s management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2015	2014	2013
Net sales:			
Europe	$ 2,324	$ 2,794	$ 2,787
North America	2,039	2,003	2,002
Latin America	1,064	1,159	1,186
Asia Pacific	671	793	966
Reportable segment totals	6,098	6,749	6,941
Other	58	35	26
Net sales	$ 6,156	$ 6,784	$ 6,967

	2015 (restated[(1)])	2014 (restated[(1)])	2013 (restated[(1)])
Segment operating profit:			
Europe	$ 209	$ 353	$ 305
North America	265	240	307
Latin America	183	227	204
Asia Pacific	83	88	131
Reportable segment totals	740	908	947
Items excluded from segment operating profit:			
Retained corporate costs and other	(70)	(100)	(119)
Charge for asbestos-related costs	(16)	(46)	(12)
Restructuring, asset impairment and other charges	(80)	(91)	(119)
Strategic transaction costs	(23)		
Acquisition-related fair value inventory adjustments	(22)		
Acquisition-related fair value intangible adjustments	(10)		
Non-income tax charge		(69)	
Pension settlement charges		(65)	
Interest expense, net	(251)	(230)	(229)
Earnings from continuing operations before income taxes	$ 268	$ 307	$ 468

(1) See Note 1 for restatement information.

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Retained Corp Costs and Other	Consolidated Totals
Total assets:							
2015	$ 2,902	$ 2,500	$ 2,807	$ 917	$ 9,126	$ 295	$ 9,421
2014	3,214	1,971	1,300	1,018	7,503	340	7,843
2013	3,494	1,995	1,467	1,150	8,106	287	8,393
Equity investments:							
2015	$ 78	$ 22	$ —	$ 145	$ 245	$ 164	$ 409
2014	81	24		153	258	169	427
2013	84	25		155	264	51	315
Equity earnings:							
2015	$ 16	$ 19	$ —	$ 7	$ 42	$ 18	$ 60
2014	19	17		4	40	24	64
2013	17	16		10	43	24	67
Capital expenditures:							
2015	$ 164	$ 97	$ 89	$ 50	$ 400	$ 2	$ 402
2014	188	89	55	34	366	3	369
2013	130	100	80	36	346	15	361
Depreciation and amortization expense:							
2015	$ 120	$ 128	$ 107	$ 40	$ 395	$ 14	$ 409
2014	140	131	79	53	403	15	418
2013	139	110	72	62	383	14	397

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2015	$ 736	$ 2,225	$ 2,961
2014	713	1,732	2,445
2013	686	1,946	2,632

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2015	$ 1,939	$ 4,217	$ 6,156
2014	1,852	4,932	6,784
2013	1,809	5,158	6,967

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015 — 10%, 2014 — 11%, 2013 — 11%).

3. Inventories

Major classes of inventory are as follows:

	2015	2014
Finished goods	$ 858	$ 884
Raw materials	113	110
Operating supplies	36	41
	$ 1,007	$ 1,035

4. Equity Investments

At December 31, 2015 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50 %	Glass container manufacturer
CO Vidrieria SARL ("COV")	50 %	Glass container manufacturer
Rocky Mountain Bottle Company	50 %	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25 %	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50 %	Glass container manufacturer
Vetri Speciali SpA	50 %	Specialty glass manufacturer

In 2014, the Company entered into the COV joint venture with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico.

In 2013, changes were made to the VeMe joint venture agreement that resulted in the Company relinquishing control of the joint venture and, therefore, deconsolidating the entity. No gain or loss was recognized related to the deconsolidation as the fair value of the entity was equal to the carrying amount of the entity's assets and liabilities. The fair value, which the Company classified as Level 3 in the fair value hierarchy, was computed using a discounted cash flow analysis based on projected future cash flows of the joint venture.

Summarized information pertaining to the Company's equity associates follows:

	2015	2014	2013
Equity in earnings:			
Non-U.S.	$ 23	$ 23	$ 27
U.S.	37	41	40
Total	$ 60	$ 64	$ 67
Dividends received	$ 53	$ 54	$ 67

Summarized combined financial information for equity associates is as follows (unaudited):

	2015	2014
At end of year:		
Current assets	$ 430	$ 479
Non-current assets	959	718
Total assets	1,389	1,197
Current liabilities	203	217
Other liabilities and deferred items	211	191
Total liabilities and deferred items	414	408
Net assets	$ 975	$ 789

For the year:	2015	2014	2013
Net sales	$ 719	$ 752	$ 699
Gross profit	$ 193	$ 198	$ 185
Net earnings	$ 139	$ 150	$ 149

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2015, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed.

The Company made purchases of approximately $161 million and $188 million from equity affiliates in 2015 and 2014, respectively, and owed approximately $66 million and $79 million to equity affiliates as of December 31, 2015 and 2014, respectively.

There is a difference of approximately $18 million as of December 31, 2015, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2015, 2014 and 2013 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2013	$ 1,006	$ 743	$ 325	$ 5	$ 2,079
Translation effects	38	(9)	(49)		(20)
Balance as of December 31, 2013	1,044	734	276	5	2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisitions		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	$ 840	$ 1,020	$ 624	$ 5	$ 2,489

The acquired goodwill in 2015 primarily relates to the Vitro Acquisition (see Note 19).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2015, 2014 and 2013.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2015, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 19). The intangibles consist of the following at December 31, 2015:

	As of December 31, 2015			
	Gross Carrying Amount	Accumulated Amortization	Translation Effects	Net Carrying Amount
Definite-lived intangible assets				
Customer list intangibles	$ 635	$ (26)	$ (12)	$ 597

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Amortization expense for intangible assets was $26 million, $0 million and $0 million for the years ended December 31, 2015, 2014, 2013, respectively. Estimated amortization related to intangible assets through 2020 is as follows: 2016, $42 million; 2017, $45 million; 2018, $44 million; 2019, $44 million; and 2020, $42 million. No impairment existed on these assets at December 31, 2015.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets consist of the following at December 31, 2015 and 2014:

	2015	2014
Prepaid expenses	$ 52	$ 40
Value added taxes	195	71
Other	119	163
	$ 366	$ 274

In conjunction with the Vitro Acquisition, part of the total consideration paid by the Company relates to a value added tax receivable of approximately $143 million. This amount is included in “Value added taxes” above and is expected to be refunded to the Company in approximately twelve months.

Other assets (noncurrent) consist of the following at December 31, 2015 and 2014:

	2015	2014
Deferred tax assets	$ 177	$ 203
Deferred returnable packaging costs	110	126
Repair part inventories	118	107
Capitalized software	86	101
Value added taxes	17	58
Deferred finance fees	6	7
Other	85	83
	$ 599	$ 685

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized

software was $19 million, $17 million and $14 million for 2015, 2014 and 2013, respectively. Estimated amortization related to capitalized software through 2020 is as follows: 2016, $17 million; 2017, $16 million; 2018, $15 million; 2019, $13 million; and 2020, $11 million.

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2015 and 2014, the Company had entered into commodity forward contracts covering approximately 7,300,000 MM BTUs and 450,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2015 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized loss of $4 million at December 31, 2015 and an unrecognized loss of less than $1 million at December 31, 2014 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2015 and 2014 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2015, 2014 and 2013 is as follows:

Amount of gain (loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of gain (loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2015	2014	2013	2015	2014	2013
$ (4)	$ 3	$ 1	$ (1)	$ 2	$ (1)

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in

currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2015 and 2014, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $790 million and $524 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2015, 2014 and 2013 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2015	2014	2013
Other expense	$ 10	$ (8)	$ (28)

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year.

The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2015 and 2014:

		Fair Value	
	Balance Sheet Location	2015	2014
Asset Derivatives:			
Derivatives not designated as hedging instruments:			
Forward exchange derivative contracts	a	$ 14	$ 10
Total asset derivatives		$ 14	$ 10
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ 3	$ —
Derivatives not designated as hedging instruments:			
Forward exchange derivative contracts	c	2	4
Total liability derivatives		$ 5	$ 4

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

Since 2011, the Company has implemented the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0 million in 2015, $1 million in 2014 and $16 million in 2013 for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company does not expect to execute any further actions under this program and recorded total cumulative charges of $127 million.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $5 million, $73 million and $49 million for the years ended 2015, 2014 and 2013, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company has recorded total cumulative charges of $220 million under this program.

Other Restructuring Actions

The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives. In 2013, there were charges of $16 million for employee costs related to the closure of flat glass operations in Latin America, $13 million for employee costs related to global headcount reduction initiatives, and $3 million for miscellaneous other costs.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2014	$ 30	$ 20	$ 64	$ 114
2014 charges	1	73	2	76
Write-down of assets to net realizable value		(46)		(46)
Net cash paid, principally severance and related benefits	(12)	(20)	(26)	(58)
Pension charges transferred to other accounts		(7)		(7)
Other, including foreign exchange translation	(7)	(8)	(4)	(19)
Balance at December 31, 2014	12	12	36	60
2015 charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)
Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2015, the Company's estimates include approximately $29 million for employee benefits costs, $7 million for environmental remediation costs, and $7 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company has defined benefit pension plans covering a substantial number of employees located in the United States and several other non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date. The following tables relate to the Company's principal defined benefit pension plans.

The changes in the pension benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Obligations at beginning of year	$ 2,428	$ 2,275	$ 1,311	$ 1,866
Change in benefit obligations:				
Service cost	24	22	15	23
Interest cost	96	105	44	69
Actuarial (gain) loss, including the effect of change in discount rates	(107)	264	(9)	131
Curtailment, settlement, and plan amendment		(56)		(567)
Acquisitions			37	
Participant contributions			1	5
Benefit payments	(252)	(182)	(58)	(91)
Other	1			
Foreign currency translation			(131)	(125)
Net change in benefit obligations	(238)	153	(101)	(555)
Obligations at end of year	$ 2,190	$ 2,428	$ 1,210	$ 1,311

The changes in the fair value of the pension plans' assets for the year are as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Fair value at beginning of year	$ 2,190	$ 2,273	$ 1,094	$ 1,578
Change in fair value:				
Actual gain (loss) on plan assets	(32)	155	42	188
Benefit payments	(252)	(182)	(58)	(91)
Employer contributions	2		15	28
Participant contributions			1	5
Settlements		(56)		(519)
Acquisitions			22	
Foreign currency translation			(104)	(94)
Other	1			(1)
Net change in fair value of assets	(281)	(83)	(82)	(484)
Fair value at end of year	$ 1,909	$ 2,190	$ 1,012	$ 1,094

The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

The funded status of the pension plans at year end is as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Plan assets at fair value	$ 1,909	$ 2,190	$ 1,012	$ 1,094
Projected benefit obligations	2,190	2,428	1,210	1,311
Plan assets less than projected benefit obligations	(281)	(238)	(198)	(217)
Items not yet recognized in pension expense:				
Actuarial loss	1,145	1,123	320	349
Prior service cost (credit)	2	2	(1)	
	1,147	1,125	319	349
Net amount recognized	$ 866	$ 887	$ 121	$ 132

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Pension assets	$ —	$ —	$ 32	$ 22
Current pension liability, included with Other accrued liabilities	(1)	(3)	(6)	(9)
Pension benefits	(280)	(235)	(224)	(230)
Accumulated other comprehensive loss	1,147	1,125	319	349
Net amount recognized	$ 866	$ 887	$ 121	$ 132

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2015 and 2014 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Current year actuarial (gain) loss	$ 95	$ 285	$ 15	$ (23)
Amortization of actuarial loss	(74)	(68)	(15)	(20)
Amortization of prior service credit				2
Curtailment and plan amendment				22
Settlement		(30)		(64)
	21	187	—	(83)
Translation			(31)	(32)
	$ 21	$ 187	$ (31)	$ (115)

The accumulated benefit obligation for all defined benefit pension plans was $3,306 million and $3,627 million at December 31, 2015 and 2014, respectively.

The components of the net pension expense for the year are as follows:

	U.S.			Non-U.S.		
	2015	2014	2013	2015	2014	2013
Service cost	$ 24	$ 22	$ 27	$ 15	$ 23	$ 33
Interest cost	96	105	106	44	69	72
Expected asset return	(170)	(176)	(183)	(67)	(86)	(91)
Amortization:						
Actuarial loss	74	68	110	15	18	28
Prior service credit						(1)
Net amortization	74	68	110	15	18	27
Net expense	$ 24	$ 19	$ 60	$ 7	$ 24	$ 41

In 2014, the Company amended its salary pension plan in North America to freeze future pension benefits effective January 1, 2016. This action required an obligation remeasurement for the curtailment of benefits, which resulted in a reduction of the Company's pension expense.

Also in 2014, the Company settled a portion of the U.S. Salary Pension Plan pension obligation, which resulted in a settlement charge of $30 million and, in 2013, $8 million of special termination benefits were recorded in discontinued operations. On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands, resulting in a settlement charge of approximately $35 million in the fourth quarter of 2014. Non-U.S. pension expense excludes $3 million and $6 million of pension settlement costs that were recorded in restructuring expense in 2014 and 2013, respectively. The table above excludes these charges.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2016:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ 62	$ 13
Prior service cost	1	
Net amortization	$ 63	$ 13

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds the Fair Value of Plan Assets				Accumulated Benefit Obligation Exceeds the Fair Value of Plan Assets			
	U.S.		Non-U.S.		U.S.		Non-U.S.	
	2015	2014	2015	2014	2015	2014	2015	2014
Projected benefit obligations	$ 2,190	$ 2,428	$ 876	$ 1,049	$ 2,190	$ 2,428	$ 876	$ 1,049
Accumulated benefit obligation	2,160	2,392	850	1,023	2,160	2,392	850	1,023
Fair value of plan assets	1,909	2,190	645	810	1,909	2,190	645	810

The weighted average assumptions used to determine benefit obligations are as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Discount rate	4.43 %	4.05 %	3.82 %	3.65 %
Rate of compensation increase	2.97 %	2.96 %	2.84 %	2.89 %

The weighted average assumptions used to determine net periodic pension costs are as follows:

	U.S.			Non-U.S.		
	2015	2014	2013	2015	2014	2013
Discount rate	4.05 %	4.81 %	4.11 %	3.65 %	4.14 %	3.89 %
Rate of compensation increase	2.96 %	2.97 %	2.97 %	2.89 %	3.31 %	3.08 %
Expected long-term rate of return on assets	8.00 %	8.00 %	8.00 %	7.21 %	7.23 %	6.34 %

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2015, the Company's weighted average expected long-term rate of return on assets was 8.0% for the U.S. plans and 7.21% for the non-U.S. plans. In developing this assumption, the Company evaluated input from its third party pension plan asset consultants, including their review of asset class return expectations and long-term inflation assumptions. The Company also considered its historical 10-year average return (through December 31, 2014), which was in line with the expected long-term rate of return assumption for 2015.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets for the U.S. plans are maintained in a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The Company's U.S. pension plan assets held in the group trust are classified as Level 2 assets in the fair value hierarchy. The total U.S. plan assets amounted to $1,909 million and $2,190 million as of December 31, 2015 and 2014, respectively. In 2015, the U.S. plan assets consisted of approximately 62% equity securities, 30% debt securities, and 8% real estate. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2015 and 2014:

	2015			2014			Target
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	Allocation
Cash and cash equivalents	$ 30	$ —	$ —	$ 14	$ —	$ —	
Equity securities	278	176		343	200		45 - 55 %
Debt securities	329	111		364	119	2	40 - 50 %
Real estate		53	5		30	3	0 - 10 %
Other		24	6		19		0 - 10 %
Total assets at fair value	$ 637	$ 364	$ 11	$ 721	$ 368	$ 5	

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2015	2014
Beginning balance	$ 5	$ 8
Net increase (decrease)	6	(3)
Ending balance	$ 11	$ 5

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2015.

In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of $25 million in 2016.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2016	$ 171	$ 59
2017	175	55
2018	163	56
2019	162	58
2020	160	60
2021-2025	744	331

The Company also sponsors several defined contribution plans for all salaried and hourly U.S. employees, and employees in Canada, the U.K., The Netherlands and Australia. Participation is voluntary and participants' contributions are based on their compensation. The Company matches contributions of participants, up to various limits, in substantially all plans. Company contributions to these plans amounted to $29 million in 2015, $19 million in 2014, and $16 million in 2013.

Postretirement Benefits Other Than Pensions

The Company provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees, and substantially all employees in Canada. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. The Company uses a December 31 measurement date to measure its postretirement benefit obligations.

The changes in the postretirement benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Obligations at beginning of year	$ 111	$ 111	$ 81	$ 90
Change in benefit obligations:				
Service cost			1	1
Interest cost	4	5	3	4
Actuarial (gain) loss, including the effect of changing discount rates	(10)	7	(1)	(2)
Benefit payments	(8)	(12)	(3)	(3)
Foreign currency translation			(13)	(7)
Other				(2)
Net change in benefit obligations	(14)	—	(13)	(9)
Obligations at end of year	$ 97	$ 111	$ 68	$ 81

The funded status of the postretirement benefit plans at year end is as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Postretirement benefit obligations	$ (97)	$ (111)	$ (68)	$ (81)
Items not yet recognized in net postretirement benefit cost:				
Actuarial loss	23	35	(3)	(3)
Prior service credit	(38)	(46)		
	(15)	(11)	(3)	(3)
Net amount recognized	$ (112)	$ (122)	$ (71)	$ (84)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (8)	$ (11)	$ (2)	$ (3)
Nonpension postretirement benefits	(89)	(100)	(66)	(78)
Accumulated other comprehensive loss	(15)	(11)	(3)	(3)
Net amount recognized	$ (112)	$ (122)	$ (71)	$ (84)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2015 and 2014 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Current year actuarial (gain) loss	$ (10)	$ 7	$ —	$ (2)
Amortization of actuarial loss	(2)	(2)		
Amortization of prior service credit	8	8		
Other adjustments				1
	$ (4)	$ 13	$ —	$ (1)

The components of the net postretirement benefit cost for the year are as follows:

	U.S.			Non-U.S.		
	2015	2014	2013	2015	2014	2013
Service cost	$ —	$ —	$ 1	$ 1	$ 1	$ 1
Interest cost	4	5	5	3	4	4
Curtailment gain			(5)			
Amortization:						
Actuarial loss	2	2	3			
Prior service credit	(8)	(8)	(7)			
Net amortization	(6)	(6)	(4)	—	—	—
Net postretirement benefit (income) cost	$ (2)	$ (1)	$ (3)	$ 4	$ 5	$ 5

Amounts that are expected to be amortized from accumulated other comprehensive income into net postretirement benefit cost during 2016:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ 2	$ —
Prior service credit	(8)	
Net amortization	$ (6)	$ —

Amortization included in net postretirement benefit cost is based on the average remaining service of employees. The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	U.S.			Non-U.S.		
	2015	2014	2013	2015	2014	2013
Accumulated postretirement benefit obligation	4.35 %	4.00 %	4.63 %	3.80 %	3.75 %	4.47 %
Net postretirement benefit cost	3.99 %	4.63 %	4.04 %	3.75 %	4.47 %	3.89 %

The weighted average assumed health care cost trend rates at December 31 are as follows:

	U.S.		Non-U.S.	
	2015	2014	2015	2014
Health care cost trend rate assumed for next year	6.60 %	7.00 %	5.00 %	5.00 %
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00 %	5.00 %	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2024	2024	2015	2014

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	U.S.		Non-U.S.	
	1-Percentage-Point		1-Percentage-Point	
	Increase	Decrease	Increase	Decrease
Effect on total of service and interest cost	$ —	$ —	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	4	(3)	11	(9)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2016	$ 8	$ 3
2017	8	3
2018	8	3
2019	8	3
2020	8	3
2021 - 2025	33	16

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in 2015, $6 million in 2014 and $6 million in 2013. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

10. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
U.S.	$ —	$ 36	$ 219
Non-U.S.	268	271	249
	$ 268	$ 307	$ 468

(1) See Note 1 for restatement information.

Discontinued operations	2015	2014	2013
U.S.	$ —	$ (19)	$ (8)
Non-U.S.	(4)	(4)	(10)
	$ (4)	$ (23)	$ (18)

The provision (benefit) for income taxes consists of the following:

	2015	2014	2013
Current:			
U.S.	$ 9	$ 7	$ 7
Non-U.S.	85	103	116
	94	110	123
Deferred:			
U.S.	10	—	—
Non-U.S.	2	(18)	(3)
	12	(18)	(3)
Total:			
U.S.	19	7	7
Non-U.S.	87	85	113
Total for continuing operations	106	92	120
Total for discontinued operations	—	—	—
	$ 106	$ 92	$ 120

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Tax provision on pretax earnings from continuing operations at statutory U.S. Federal tax rate	$ 94	$ 107	$ 164
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates	(12)	(22)	(18)
Changes in valuation allowance	1	(2)	(47)
Withholding tax, net	18	18	22
Non-deductible acquisition costs	6		
U.S. tax on intercompany dividends and interest	16	1	3
Tax exempt income	(3)	(5)	(6)
Tax law changes	(3)		6
Tax credit	(13)	(3)	(2)
Other items	2	(2)	(2)
Provision for income taxes	$ 106	$ 92	$ 120

(1) See Note 1 for restatement information.

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2015 and 2014 are as follows:

	2015 (restated[1])	2014 (restated[1])
Deferred tax assets:		
Accrued postretirement benefits	$ 51	$ 58
Asbestos-related liabilities	286	329
Foreign tax credit	389	376
Operating and capital loss carryovers	435	464
Other credit carryovers	38	37
Accrued liabilities	82	85
Pension liability	128	117
Other	63	80
Total deferred tax assets	1,472	1,546
Deferred tax liabilities:		
Property, plant and equipment	128	127
Intangibles and deferred software	131	34
Other	25	41
Total deferred tax liabilities	284	202
Valuation allowance	(1,135)	(1,223)
Net deferred taxes	$ 53	$ 121

(1) See Note 1 for restatement information.

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	2015	2014
Prepaid expenses	$ —	$ 39
Other assets	177	203
Deferred taxes	(124)	(121)
Net deferred taxes	$ 53	$ 121

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

At December 31, 2015, before valuation allowance, the Company had unused foreign tax credits of $389 million expiring in 2017 through 2025, research tax credits of $14 million expiring from 2019 to 2035, and alternative minimum tax credits of $23 million which do not expire and which will be available to offset future U.S. Federal income tax. Approximately $145 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $290 million expiring between 2016 and 2036.

In certain jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a

valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2015, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.5 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations and has not distributed any of these earnings to the U.S. in 2015, 2014 or 2013. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company has recognized tax benefits as a result of incentives in certain non-U.S. jurisdictions which expire in 2016.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2015, 2014 and 2013:

	2015	2014	2013
Balance at January 1	$ 77	$ 100	$ 97
Additions and reductions for tax positions of prior years	1	(13)	(3)
Additions based on tax positions related to the current year	10	10	9
Reductions due to the lapse of the applicable statute of limitations	(5)	(8)	(2)
Reductions due to settlements	(1)	(1)	
Foreign currency translation	(8)	(11)	(1)
Balance at December 31	$ 74	$ 77	$ 100
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 67	$ 70	$ 92
Accrued interest and penalties at December 31	$ 25	$ 29	$ 35
Interest and penalties included in tax expense for the years ended December 31	$ (1)	$ (2)	$ 1

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably possible that the estimated liability could decrease up to $47 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Bolivia, Brazil, China, Canada, Colombia, France, Germany, Indonesia, and Italy. The years under examination range from 2004 through 2013. The Company believes that there are no jurisdictions in which the outcome of unresolved issues or claims is likely to be material to the Company's results of operations, financial position or cash flows. The Company further believes that adequate provisions for all income tax uncertainties have been made. During 2015, the Company concluded income tax audits in several jurisdictions, including Argentina, Germany, Italy, Peru and Poland.

11. Debt

The following table summarizes the long-term debt of the Company at December 31, 2015 and 2014:

	2015	2014
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,546	
Term Loan A (€279 million at December 31, 2015)	301	
Term Loan B	563	
Previous Secured Credit Agreement:		
Term Loans:		
Term Loan B (USD tranche)		404
Term Loan C (CAD tranche)		70
Term Loan D (EUR tranche)		103
Senior Notes:		
3.00%, Exchangeable, due 2015		18
7.375%, due 2016		594
6.75%, due 2020 (€500 million)	542	603
4.875%, due 2021 (€330 million)	357	397
5.00%, due 2022	494	493
5.875%, due 2023	680	
5.375%, due 2025	296	295
6.375%, due 2025	293	
Senior Debentures:		
7.80%, due 2018	250	249
Capital Leases	62	63
Other	29	29
Total long-term debt	5,413	3,318
Less amounts due within one year	68	361
Long-term debt	$ 5,345	$ 2,957

On April 22, 2015, certain of the Company's subsidiaries entered into a new Senior Secured Credit Facility (the "Agreement"), which amended and restated the previous credit agreement (the "Previous Agreement"). The proceeds from the Agreement were used to repay all outstanding amounts under the Previous Agreement and the 7.375% senior notes due 2016. The Company recorded $42 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in 2015.

In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 19), the Company entered into Amendment No. 2 ("Amendment No. 2") to the Agreement, which provided for additional incremental availability under the incremental dollar cap in the Agreement of up to $1,250 million. In addition, in connection with the closing of the Vitro Acquisition, on September 1, 2015, the Company entered into the First Incremental Amendment to the Agreement (the "Incremental Amendment") pursuant to which the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility (the "incremental term loan A facility") on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Agreement and (ii) a $575 million term loan B facility (the

"incremental term loan B facility") maturing seven years after the closing of the Vitro Acquisition using its incremental capacity under the Agreement.

At December 31, 2015, the Agreement, as amended by Amendment No. 2 and the Incremental Amendment (the "Amended Agreement"), includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,546 million net of debt issuance costs), and a €279 million term loan A facility ($301 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. The Amended Agreement also includes a $575 million term loan B facility ($563 million net of debt issuance costs) with a final maturity date of September 1, 2022. At December 31, 2015, the Company had unused credit of $872 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2015 was 2.37%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial maintenance covenant, a Total Leverage Ratio, that requires the Company as of the last day of a fiscal quarter not to exceed a ratio of 4.0x calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The maximum Total Leverage Ratio is subject to an increase of 0.5x for the four fiscal quarters commencing on and following the consummation of certain qualifying acquisitions as defined in the Amended Agreement. In connection with the Vitro Acquisition on September 1, 2015, the Company elected to increase such maximum Total Leverage Ratio to 4.5x for the four fiscal quarters ending June 30, 2016. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum.

On February 3, 2016, the Company entered into Amendment No. 4 ("Amendment No. 4") to the Amended Agreement, which provided for an increase in the maximum Total Leverage Ratio for purposes of the financial covenant in the Amended Agreement to 5.0x for the fiscal quarters ending March 31, 2016, June 30, 2016 and September 30, 2016, 4.50x for the fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and stepping back down to 4.0x for the fiscal quarter ending December 31, 2017 and each fiscal quarter ending thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement as amended by Amendment No. 4. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement as amended by Amendment No. 4 and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2015, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement as amended by Amendment No. 4 will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage

Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio. The applicable margin for the term loan B facility is 2.75% for Eurocurrency Rate loans and 1.75% for Base Rate loans. The incremental term loan B facility is subject to a LIBOR floor of 0.75%.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company for the term of the Amended Agreement.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022 (the "Senior Notes due 2022"). The Company also issued senior notes with a face value of $300 million that bear interest at 5.375% and are due January 15, 2025 (together with the Senior Notes due 2022, the "2014 Senior Notes"). The 2014 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2014 Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase in a tender offer $611 million aggregate principal amount of the Company's 3.00% 2015 Exchangeable Senior Notes. The remaining balance of the Exchangeable Senior Notes was repaid in the second quarter of 2015.

The Company has a €185 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2015 and 2014 is as follows:

	2015	2014
Balance (included in short-term loans)	$ 158	$ 122
Weighted average interest rate	1.21 %	1.41 %

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2020 are as follows: 2016, $68 million; 2017, $84 million; 2018, $358 million; 2019, $108 million; and 2020, $2,100 million.

Fair values at December 31, 2015, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 547	$ 116.75	$ 639
4.875%, due 2021 (€330 million)	361	109.19	394
5.00%, due 2022	500	98.25	491
5.875%, due 2023	700	101.00	707
5.375%, due 2025	300	101.50	305
6.375%, due 2025	300	97.50	293
Senior Debentures:			
7.80%, due 2018	250	110.90	277

12. Contingencies

Asbestos

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company sold its insulation business unit at the end of April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory and, in some cases, punitive damages in various amounts (herein referred to as "asbestos claims").

The following table shows the approximate number of plaintiffs and claimants who had asbestos claims pending against the Company at the beginning of each listed year, the number of claims disposed of during that year, the year's filings and the claims pending at the end of each listed year (eliminating duplicate filings):

	2015	2014	2013
Pending at beginning of year	2,260	2,620	2,610
Disposed	1,460	1,830	1,700
Filed	1,280	1,470	1,710
Pending at end of year	2,080	2,260	2,620

Based on an analysis of the lawsuits pending as of December 31, 2015, approximately 82% of plaintiffs either do not specify the monetary damages sought, or in the case of court filings, claim an amount sufficient to invoke the jurisdictional minimum of the trial court. Approximately 11% of plaintiffs specifically plead damages above the jurisdictional minimum up to, and including, $15 million or less, and 7% of plaintiffs specifically plead damages greater than $15 million but less than or equal to $100 million.

As indicated by the foregoing summary, current pleading practice permits considerable variation in the assertion of monetary damages. The Company's experience resolving hundreds of thousands of asbestos claims and lawsuits over an extended period demonstrates that the monetary relief alleged in a complaint bears little relevance to a claim's merits or disposition value. Rather, the amount potentially recoverable is determined by such factors as the type and severity of the plaintiff's asbestos disease, the plaintiff's medical history and exposure to other disease-causing agents, the product identification evidence against the Company and other co-defendants, the defenses available to the Company and other co-defendants, the specific jurisdiction in which the claim is made, and the plaintiff's firm representing the claimant.

In addition to the pending claims set forth above, the Company has claims-handling agreements in place with many plaintiffs' counsel throughout the country. These agreements require evaluation and negotiation regarding whether particular claimants qualify under the criteria established by such agreements. The criteria for such claims include verification of a compensable illness and a reasonable probability of exposure to a product manufactured by the Company's former business unit during its manufacturing period ending in 1958.

The Company has also been a defendant in other asbestos-related lawsuits or claims involving maritime workers, medical monitoring claimants, co-defendants and property damage claimants. Based upon its past experience, the Company believes that these categories of lawsuits and claims will not involve any material liability and they are not included in the above description of pending matters or in the following description of disposed matters.

Since receiving its first asbestos claim, the Company as of December 31, 2015, has disposed of the asbestos claims of approximately 396,000 plaintiffs and claimants at an average indemnity payment per claim of approximately $9,200. The Company's asbestos indemnity payments have varied on a per claim basis, and are expected to continue to vary considerably over time. Asbestos-related cash payments for 2015, 2014 and 2013 were $138 million, $148 million, and $158 million, respectively. The Company's cash payments per claim disposed (inclusive of legal costs) were approximately $95,000, $81,000 and $93,000 for the years ended December 31, 2015, 2014 and 2013, respectively.

As discussed above, the Company's objective is to achieve, where possible, resolution of asbestos claims pursuant to claims-handling agreements. Failure of claimants to meet certain medical and product exposure criteria in the Company's administrative claims handling agreements has generally reduced the number of claims that would otherwise have been received by the Company in the tort system. In addition, certain court orders and legislative acts have reduced or eliminated the number of claims that the Company otherwise would have received by the Company in the tort system. These developments generally have had the effect of increasing the Company's per-claim average indemnity payment over time.

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2015, before insurance recoveries, for its asbestos-related liability. The Company's estimates of its liability have been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

The Company continues to monitor trends that may affect its ultimate liability and analyze the developments and variables likely to affect the resolution of pending and future asbestos claims against the Company. The material components of the Company's accrued liability are determined by the Company in connection with its annual comprehensive legal review and consist of the following estimates, to the extent it is probable that such liabilities have been incurred and can be reasonably estimated: (i) the liability for asbestos claims already asserted against the Company; (ii) the liability for asbestos claims not yet asserted against the Company; and (iii) the legal defense costs estimated to be incurred in connection with the claims already asserted and those claims the Company believes will be asserted.

As noted above, the Company conducts a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its annual comprehensive legal review, the Company provides historical claims filing data to a third party with expertise in determining the impact of disease incidence and mortality on future filing trends to develop information to assist the Company in estimating the total number of future claims to be filed. The Company uses this estimate of total future claims,

along with an estimation of disposition costs and related legal costs as inputs to develop its best estimate of probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

As described in Note 1, the Company revised its method for estimating its asbestos-related liabilities in connection with finalizing and reporting its restated results of operations for the year ended December 31, 2015 and 2014 and concluded that an accrual in the amount of $817 million and $939 million, respectively, was required. These amounts have not been discounted for the time value of money. The application of the revised method also resulted in charges of $16 million, $46 million and $12 million for the years ending December 31, 2015, 2014 and 2013, respectively.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $817 million as of December 31, 2015. The Company estimates that reasonably possible losses could be as high as $950 million. This estimate of additional reasonably possible loss reflects a legal judgment about the number and cost of potential future claims and legal costs. The Company believes this estimate is consistent with the level of variability it has experienced when comparing actual results to recent near-term projections. However, it is also possible that the ultimate asbestos-related liability could be above this estimate.

The Company expects a significant majority of the total number of claims to be received in the next ten years. This timeframe appropriately reflects the mortality of current and expected claimants in light of the Company's sale of its insulation business unit in 1958.

As noted above, the Company's asbestos-related liability is based on a projection of new claims that will eventually be filed against the Company and the estimated average disposition cost of these claims and related legal costs. Changes in the significant assumptions noted above have the potential to impact these key factors, which are critical to the estimation of the Company's asbestos-related liability significantly.

Other Matters

The Company conducted an internal investigation into conduct in certain of its overseas operations that may have violated the anti-bribery provisions of the United States Foreign Corrupt Practices Act (the "FCPA"), the FCPA's books and records and internal controls provisions, the Company's own internal policies, and various

local laws. In October 2012, the Company voluntarily disclosed these matters to the U.S. Department of Justice (the "DOJ") and the Securities and Exchange Commission (the "SEC").

On July 18, 2013, the Company received a letter from the DOJ indicating that it presently did not intend to take any enforcement action and is closing its inquiry into the matter.

As disclosed in previous periods, the Company is presently unable to predict the duration, scope or result of an investigation by the SEC, if any, or whether the SEC will commence any legal action. The SEC has a broad range of civil sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, penalties, and modifications to business practices. The Company could also be subject to investigation and sanctions outside the United States. While the Company is currently unable to quantify the impact of any potential sanctions or remedial measures, it does not expect such actions will have a material adverse effect on the Company's liquidity, results of operations or financial condition.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Income (Loss)
Balance on January 1, 2014	$ 229	$ (12)	$ (1,338)	$ (1,121)
Change before reclassifications	(284)	3	(140)	(421)
Amounts reclassified from accumulated other comprehensive income		(2)(a)	92 (b)	90
Translation effect			(32)	(32)
Tax effect			(10)	(10)
Other comprehensive income (loss) attributable to the Company	(284)	1	(90)	(373)
Balance on December 31, 2014	(55)	(11)	(1,428)	(1,494)
Change before reclassifications	(513)	(4)	(58)	(575)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	83 (b)	82
Translation effect			(31)	(31)
Tax effect		(1)	2	1
Other comprehensive income (loss) attributable to the Company	(513)	(6)	(4)	(523)
Balance on December 31, 2015	$ (568)	$ (17)	$ (1,432)	$ (2,017)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Stock Options and Other Stock Based Compensation

The Company has various nonqualified plans approved by share owners under which it has granted stock options, restricted shares and performance vested restricted share units. At December 31, 2015, there were 8,892,000 shares available for grants under these plans. Total compensation cost for all grants of shares and units under these plans was $15 million, $21 million and $11 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Stock Options

In general, subject to change in control, options become exercisable 25% per year beginning on the first anniversary of grant. No options may be exercised in whole or in part during the first year after the date granted. In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Stock option information at December 31, 2015 and for the year then ended is as follows:

	Number of Shares (thousands)	Weighted Average Exercise Price (per share)	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at January 1, 2015	2,421	$ 26.83		
Granted	688	23.61		
Exercised	(56)	13.04		
Forfeited or expired	(432)	42.84		
Options outstanding at December 31, 2015	2,621	23.64	3.3	$ 4
Options vested or expected to vest at December 31, 2015	2,566	$ 23.60	3.2	$ 4
Options exercisable at December 31, 2015	1,563	$ 22.16	1.8	$ 4

Certain additional information related to stock options is as follows for the periods indicated:

	2015	2014	2013
Weighted average grant-date fair value of options granted (per share)	$ 7.79	$ 13.17	$ 12.39
Aggregate intrinsic value of options exercised	$ —	$ 3	$ 16
Aggregate cash received from options exercised	$ 1	$ 5	$ 24

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model using the following weighted average assumptions:

	2015	2014	2013
Expected life of options (years)	5.00	5.00	5.00
Expected stock price volatility	34.5 %	43.0 %	55.3 %
Risk-free interest rate	1.7 %	1.6 %	0.9 %
Expected dividend yield	0.0 %	0.0 %	0.0 %

The expected life of options is determined from historical exercise and termination data. The expected stock price volatility is determined by reference to historical prices over a period equal to the expected life.

Restricted Shares and Restricted Share Units

Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

The activity of restricted shares and restricted share units is as follows:

	Number of Restricted Shares (thousands)	Weighted Average Grant-Date Fair Value (per share)
Nonvested at January 1, 2015	487	$ 27.25
Granted	550	22.69
Vested	(177)	29.12
Forfeited	(188)	25.17
Nonvested at December 31, 2015	672	23.60
Awards granted during 2014		$ 33.36
Awards granted during 2013		$ 26.49

	2015	2014	2013
Total fair value of shares vested	$ 4	$ 5	$ 5

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of the Company's common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of the Company's Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of the Company's common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

Performance vested restricted share unit activity is as follows:

	Number of Performance Vested Restricted Shares Units (thousands)	Weighted Average Grant-Date Fair Value (per unit)
Nonvested at January 1, 2015	903	$ 26.94
Granted	454	23.63
Vested	(331)	22.60
Forfeited/Cancelled	(93)	27.52
Nonvested at December 31, 2015	933	26.81
Awards granted during 2014		$ 33.41
Awards granted during 2013		$ 26.10

Approximately 331,000 shares were issued in 2015 with a fair value at issuance date of $8 million related to performance vested restricted share units.

As of December 31, 2015, there was $15 million of total unrecognized compensation cost related to all unvested stock options, restricted shares, restricted share units and performance vested restricted share units. That cost is expected to be recognized over a weighted average period of approximately two years.

15. Other Expense, net

Other expense, net for the years ended December 31, 2015, 2014, and 2013 included the following:

	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Restructuring, asset impairment and other charges	$ 75	$ 68	$ 97
Charge for asbestos-related costs	16	46	12
Strategic transaction costs	23		
Acquisition-related fair value intangible adjustments	10		
Non-income tax charge		69	
Charge for Argentina impairment			22
Foreign currency exchange loss (gain)	(10)	(2)	9
Other expense (income)	(3)	13	(7)
	$ 111	$ 194	$ 133

(1) See Note 1 for restatement information.

In 2014, the Company recorded a charge of $69 million resulting from a non-income tax assessment from a foreign tax authority.

16. Operating Leases

Rent expense attributable to all warehouse, office buildings and equipment operating leases was $72 million in 2015, $63 million in 2014, and $57 million in 2013. Minimum future rentals under operating leases are as follows: 2016, $82 million; 2017, $78 million; 2018, $73 million; 2019, $65 million; 2020, $65 million; and 2021 and thereafter, $42 million.

17. Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share:

	2015 (restated[1])	2014 (restated[1])	2013 (restated[1])
Numerator:			
Net earnings attributable to the Company	$ 135	$ 164	$ 317
Denominator (in thousands):			
Denominator for basic earnings per share-weighted average shares outstanding	161,169	164,720	164,425
Effect of dilutive securities:			
Stock options and other	966	1,327	1,403
Denominator for diluted earnings per share-adjusted weighted average shares outstanding	162,135	166,047	165,828
Basic earnings per share:			
Earnings from continuing operations	$ 0.86	$ 1.14	$ 2.03
Loss from discontinued operations	(0.03)	(0.14)	(0.11)
Net earnings	$ 0.83	$ 1.00	$ 1.92
Diluted earnings per share:			
Earnings from continuing operations	$ 0.85	$ 1.13	$ 2.02
Loss from discontinued operations	(0.03)	(0.14)	(0.11)
Net earnings	$ 0.82	$ 0.99	$ 1.91

(1) See Note 1 for restatement information.

Options to purchase 1,937,315, 1,143,933 and 1,315,216 weighted average shares of common stock which were outstanding during 2015, 2014 and 2013, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares.

On February 4, 2015, the Company entered into an accelerated share repurchase agreement ("ASR") with J.P. Morgan Securities LLC (the "ASR Counterparty") to repurchase $100 million of its common stock. The Company advanced $100 million to the ASR Counterparty on February 5, 2015, and received 3,509,496 shares, which represented eighty five percent of the total shares as calculated using the closing price on February 4, 2015. The remaining share settlement was received from the ASR Counterparty in the amount of 599,760 shares and was completed on May 26, 2015 based on the daily volume-weighted average price of the Company's common stock during the term of the ASR. Under the terms of the ASR program, the ASR Counterparty was permitted, in accordance with the applicable requirements of the federal securities laws, to separately trade in the Company's shares.

18. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2015	2014	2013
Decrease (increase) in current assets:			
Receivables	$ (14)	$ 59	$ 18
Inventories	(13)	(26)	(30)
Prepaid expenses and other	(4)	(1)	3
Increase (decrease) in current liabilities:			
Accounts payable	100	103	128
Accrued liabilities	21	12	7
Salaries and wages	12	(3)	(2)
U.S. and foreign income taxes	(14)	(27)	
	$ 88	$ 117	$ 124

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2015 and 2014, the amount of receivables sold by the Company was $317 million and $276 million, respectively. Any continuing involvement with the sold receivables is immaterial.

	2015	2014	2013
Interest paid in cash	$ 227	$ 199	$ 205
Income taxes paid in cash (all non-U.S)	101	101	128

Cash interest for the years ended December 31, 2015, 2014 and 2013 includes $32 million, $9 million and $12 million of note repurchase premiums, respectively.

19. Business Combinations

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $258 million of net sales and $46 million of segment operating profit through December 31, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from its recently completed senior notes offering, cash on hand and the incremental term loan facilities (see Note 11).

The total purchase price will be allocated to the tangible and identifiable intangible assets and liabilities based upon their respective fair values. The purchase agreement contains customary provisions for working capital adjustments, which the Company expects to resolve with the seller in the first half of 2016. The purchase price allocation has not been finalized as of December 31, 2015, because the Company has not yet completed its review of the asset and liability values and related amortization and depreciation periods. The Company expects that the purchase price allocation process will be completed no later than the third quarter of 2016. The following table summarizes the preliminary estimates of fair value of the assets and liabilities assumed on September 1,

2015 and subsequent adjustments identified through the ongoing purchase price allocation process and recorded through the measurement period:

	September 1, 2015	Measurement Period Adjustments	December 31, 2015
Cash	$ 17	$ —	$ 17
Other current assets	344		344
Goodwill	1,073	(285)	788
Customer list intangibles	406	229	635
Net property, plant and equipment	597	56	653
Total assets	2,437	—	2,437
Current liabilities	93	10	103
Long-term debt	11		11
Long-term liabilities	36	(10)	26
Net assets acquired	$ 2,297	$ —	$ 2,297

The fair value of the tangible assets was estimated utilizing income and market approaches, considering remaining useful life. The customer list intangible asset includes the Company's established relationships with its customers and the ability of these customers to generate future economic profits for the Company. The value assigned to customer list intangibles is based on the present value of future earnings attributable to the asset group after recognition of required returns to other contributory assets.

Recognized goodwill is attributable to the assembled workforce, expected synergies and other intangible assets that do not qualify for separate recognition. The Vitro Acquisition goodwill is not deductible for tax purposes.

The provisional balance sheet adjustments identified above did not result in any significant adjustments to the previous period's income statement.

20. Pro Forma Information – Vitro Acquisition

Had the Vitro Acquisition, described in Note 19 and the related financing described in Note 11, occurred at the beginning of each respective period, unaudited pro forma consolidated net sales, earnings from continuing operations and earnings from continuing operations per share of common stock (diluted) would have been as follows:

	Year Ended December 31, 2015			
	As Reported (restated[1])	Acquisition Adjustments	Financing Adjustments	Pro Forma As Adjusted (restated[1])
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 139	$ 75	$ (46)	$ 168
Diluted earnings per share from continuing operations	$ 0.85			$ 1.04

(1) See Note 1 for restatement information.

	Year Ended December 31, 2014			
	As Reported (restated[1])	Acquisition Adjustments	Financing Adjustments	Pro Forma As Adjusted (restated[1])
Net sales	$ 6,784	$ 858	$ —	$ 7,642
Earnings from continuing operations attributable to the Company	$ 187	$ 70	$ (71)	$ 186
Diluted earnings per share from continuing operations	$ 1.13			$ 1.12

See Note 1 for restatement information.

21. Discontinued Operations

On March 10, 2015, a tribunal constituted under the auspices of the International Centre for Settlement of Investment Disputes ("ICSID") awarded a subsidiary of the Company more than $455 million in an international arbitration against Venezuela related to the 2010 expropriation of the Company's majority interest in two plants in that country. On July 10, 2015, ICSID confirmed that it had received from Venezuela a petition to annul the award. The annulment process can take up to several years to complete. The Company is unable at this stage to predict the amount or timing of compensation it will ultimately receive under the award. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants.

The loss from discontinued operations of $4 million for the year ended December 31, 2015 relates to ongoing costs for the Venezuelan expropriation.

The loss from discontinued operations of $23 million for the year ended December 31, 2014 included a settlement of a dispute with a purchaser of a previously disposed business, as well as ongoing costs related to the Venezuelan expropriation.

The loss from discontinued operations of $18 million for the year ended December 31, 2013 included special termination benefits related to a previously disposed business, as well as ongoing costs related to the Venezuelan expropriation.

22. Financial Information for Subsidiary Guarantors and Non-Guarantors

The following presents condensed consolidating financial information for the Company, segregating: (1) Owens-Illinois, Inc., the issuer of senior debentures (the "Parent"); (2) the two subsidiaries which have guaranteed the senior debentures on a subordinated basis (the "Guarantor Subsidiaries"); and (3) all other subsidiaries (the "Non-Guarantor Subsidiaries"). The Guarantor Subsidiaries are 100% owned direct and indirect subsidiaries of the Company and their guarantees are full, unconditional and joint and several. They have no operations and function only as intermediate holding companies.

Certain reclassifications have been made to conform all of the financial information to the financial presentation on a consolidated basis. The principal eliminations relate to investments in subsidiaries and intercompany balances and transactions.

	December 31, 2015				
Balance Sheet	**Parent (restated[(1)])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[(1)])**
Current assets:					
Cash and cash equivalents	$ —	$ —	$ 399	$ —	$ 399
Trade receivables, net			562		562
Inventories			1,007		1,007
Prepaid expenses and other current assets			366		366
Total current assets	—	—	2,334	—	2,334
Investments in and advances to subsidiaries	1,240	988		(2,228)	—
Property, plant and equipment, net			2,961		2,961
Intangibles			597		597
Goodwill			2,489		2,489
Other assets			1,040		1,040
Total assets	$ 1,240	$ 988	$ 9,421	$ (2,228)	$ 9,421
Current liabilities :					
Short-term loans and long-term debt due within one year	$ —	$ —	$ 228	$ —	$ 228
Current portion of asbestos liability	130				130
Accounts payable			1,212		1,212
Other liabilities	2		552	(2)	552
Total current liabilities	132	—	1,992	(2)	2,122
Long-term debt	250		5,345	(250)	5,345
Asbestos-related liabilities	687				687
Other long-term liabilities			988		988
Share owners' equity	171	988	988	(1,976)	171
Noncontrolling interests			108		108
Total liabilities and share owners' equity	$ 1,240	$ 988	$ 9,421	$ (2,228)	$ 9,421

(1) See Note 1 for restatement information.

	December 31, 2014				
Balance Sheet	**Parent (restated[(1)])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[(1)])**
Current assets:					
Cash and cash equivalents	$ —	$ —	$ 512	$ —	$ 512
Trade receivables, net			550		550
Inventories			1,035		1,035
Prepaid expenses and other current assets			274		274
Total current assets	—	—	2,371	—	2,371
Investments in and advances to subsidiaries	1,863	1,593		(3,456)	—
Property, plant and equipment, net			2,445		2,445
Goodwill			1,893		1,893
Other assets			1,134		1,134
Total assets	$ 1,863	$ 1,593	$ 7,843	$ (3,456)	$ 7,843
Current liabilities :					
Short-term loans and long-term debt due within one year	$ —	$ —	$ 488	$ —	$ 488
Current portion of asbestos liability	143				143
Accounts payable			1,137		1,137
Other liabilities	20		560	(20)	560
Total current liabilities	163	—	2,185	(20)	2,328
Long-term debt	250		2,957	(250)	2,957
Asbestos-related liabilities	796				796
Other long-term liabilities			991		991
Share owners' equity	654	1,593	1,593	(3,186)	654
Noncontrolling interests			117		117
Total liabilities and share owners' equity	$ 1,863	$ 1,593	$ 7,843	$ (3,456)	$ 7,843

(1) See Note 1 for restatement information.

	Year ended December 31, 2015				
Results of Operations	**Parent (restated[1])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[1])**
Net sales	$	$	$ 6,156	$	$ 6,156
Cost of goods sold			(5,046)		(5,046)
Gross profit			1,110		1,110
Selling and administrative expense			(476)		(476)
Research, development and engineering expense			(64)		(64)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(231)		(251)
Equity earnings from subsidiaries	151	151		(302)	—
Other equity earnings			60		60
Other expense, net	(16)		(95)		(111)
Earnings before income taxes	135	151	284	(302)	268
Provision for income taxes			(106)		(106)
Earnings from continuing operations	135	151	178	(302)	162
Loss from discontinued operations			(4)		(4)
Net earnings	135	151	174	(302)	158
Net earnings attributable to noncontrolling interests			(23)		(23)
Net earnings attributable to the Company	$ 135	$ 151	$ 151	$ (302)	$ 135

(1) See Note 1 for restatement information.

	Year ended December 31, 2015				
Comprehensive Income	**Parent (restated[1])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[1])**
Net earnings	$ 135	$ 151	$ 174	$ (302)	$ 158
Other comprehensive loss, net	(539)	(539)	(539)	1,078	(539)
Total comprehensive loss	(404)	(388)	(365)	776	(381)
Comprehensive income attributable to noncontrolling interests			(7)		(7)
Comprehensive loss attributable to the Company	$ (404)	$ (388)	$ (372)	$ 776	$ (388)

(1) See Note 1 for restatement information.

	Year ended December 31, 2014				
Results of Operations	**Parent (restated[1])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[1])**
Net sales	$ —	$ —	$ 6,784	$ —	$ 6,784
Cost of goods sold			(5,531)		(5,531)
Gross profit			1,253		1,253
Selling and administrative expense			(523)		(523)
Research, development and engineering expense			(63)		(63)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(210)		(230)
Equity earnings from subsidiaries	210	210		(420)	—
Other equity earnings			64		64
Other expense, net	(46)		(148)		(194)
Earnings before income taxes	164	210	353	(420)	307
Provision for income taxes			(92)		(92)
Earnings from continuing operations	164	210	261	(420)	215
Loss from discontinued operations			(23)		(23)
Net earnings	164	210	238	(420)	192
Net earnings attributable to noncontrolling interests			(28)		(28)
Net earnings attributable to the Company	$ 164	$ 210	$ 210	$ (420)	$ 164

(1) See Note 1 for restatement information.

	Year ended December 31, 2014				
Comprehensive Income	**Parent (restated[1])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[1])**
Net earnings	$ 164	$ 210	$ 238	$ (420)	$ 192
Other comprehensive loss, net	(394)	(394)	(394)	788	(394)
Total comprehensive loss	(230)	(184)	(156)	368	(202)
Comprehensive income attributable to noncontrolling interests			(7)		(7)
Comprehensive loss attributable to the Company	$ (230)	$ (184)	$ (163)	$ 368	$ (209)

(1) See Note 1 for restatement information.

	Year ended December 31, 2013				
Results of Operations	**Parent (restated[1])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[1])**
Net sales	$ —	$ —	$ 6,967	$ —	$ 6,967
Cost of goods sold			(5,636)		(5,636)
Gross profit	—	—	1,331	—	1,331
Selling and administrative expense			(506)		(506)
Research, development and engineering expense			(62)		(62)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(209)		(229)
Equity earnings from subsidiaries	329	329		(658)	—
Other equity earnings			67		67
Other expense, net	(12)		(121)		(133)
Earnings before income taxes	317	329	480	(658)	468
Provision for income taxes			(120)		(120)
Earnings from continuing operations	317	329	360	(658)	348
Loss from discontinued operations			(18)		(18)
Net earnings	317	329	342	(658)	330
Net earnings attributable to noncontrolling interests			(13)		(13)
Net earnings attributable to the Company	$ 317	$ 329	$ 329	$ (658)	$ 317

(1) See Note 1 for restatement information.

	Year ended December 31, 2013				
Comprehensive Income	**Parent (restated[1])**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated (restated[1])**
Net earnings	$ 317	$ 329	$ 342	$ (658)	$ 330
Other comprehensive income, net	379	379	379	(758)	379
Total comprehensive income	696	708	721	(1,416)	709
Comprehensive income (loss) attributable to noncontrolling interests	6	—	(7)	(6)	(7)
Comprehensive income attributable to the Company	$ 702	$ 708	$ 714	$ (1,422)	$ 702

(1) See Note 1 for restatement information.

	Year ended December 31, 2015				
Cash Flows	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Cash provided by (utilized in) operating activities	$ 87	$ —	$ 521	$ —	$ 608
Cash utilized in investing activities			(2,748)		(2,748)
Cash provided by financing activities	(87)		2,144		2,057
Effect of exchange rate change on cash			(30)		(30)
Net change in cash	—	—	(113)	—	(113)
Cash at beginning of period			512		512
Cash at end of period	$ —	$ —	$ 399	$ —	$ 399

	Year ended December 31, 2014				
Cash Flows	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Cash provided by (utilized in) operating activities	$ (148)	$ —	$ 823	$ —	$ 675
Cash utilized in investing activities			(455)		(455)
Cash provided by (utilized in) financing activities	148		(218)		(70)
Effect of exchange rate change on cash			(21)		(21)
Net change in cash	—	—	129	—	129
Cash at beginning of period			383		383
Cash at end of period	$ —	$ —	$ 512	$ —	$ 512

	Year ended December 31, 2013				
Cash Flows	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Cash provided by (utilized in) operating activities	$ (158)	$ —	$ 840	$ —	$ 682
Cash utilized in investing activities			(402)		(402)
Cash provided by (utilized in) financing activities	158		(479)		(321)
Effect of exchange rate change on cash			(7)		(7)
Net change in cash	—	—	(48)	—	(48)
Cash at beginning of period			431		431
Cash at end of period	$ —	$ —	$ 383	$ —	$ 383

Selected Quarterly Financial Data (unaudited) The following tables present selected financial data by quarter for the years ended December 31, 2015 and 2014:

	2015				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter (restated[1])	Total Year (restated[1])
Net sales	$ 1,421	$ 1,543	$ 1,566	$ 1,626	$ 6,156
Gross profit	$ 268	$ 274	$ 276	$ 292	$ 1,110
Earnings from continuing operations attributable to the Company (a)	$ 71	$ 42	$ 18	$ 8	$ 139
Loss from discontinued operations attributable to the Company	—	(2)	(1)	(1)	(4)
Net earnings attributable to the Company	$ 71	$ 40	$ 17	$ 7	$ 135
Earnings per share of common stock (a) (b):					
Basic:					
Earnings from continuing operations	$ 0.44	$ 0.26	$ 0.11	$ 0.05	$ 0.86
Loss from discontinued operations	—	(0.01)	(0.01)	(0.01)	(0.03)
Net earnings	$ 0.44	$ 0.25	$ 0.10	$ 0.04	$ 0.83
Diluted:					
Earnings from continuing operations	$ 0.44	$ 0.26	$ 0.11	$ 0.04	$ 0.85
Loss from discontinued operations	—	(0.01)	(0.01)	(0.01)	(0.03)
Net earnings	$ 0.44	$ 0.25	$ 0.10	$ 0.03	$ 0.82

(1) See Note 1 for restatement information.

(a) Amounts management considers not representative of ongoing operations include:

For the second quarter, included net charges totaling $55 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.34.

For the third quarter, included net charges totaling $75 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.46.

For the fourth quarter, included net charges totaling $56 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.35.

(b) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

	2014				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter (restated[1])	Total Year (restated[1])
Net sales	$ 1,639	$ 1,797	$ 1,745	$ 1,603	$ 6,784
Gross profit	$ 321	$ 358	$ 337	$ 237	$ 1,253
Earnings (loss) from continuing operations attributable to the Company (c)	$ 102	$ 134	$ 61	$ (110)	$ 187
Loss from discontinued operations attributable to the Company	(1)	(20)	(1)	(1)	(23)
Net earnings (loss) attributable to the Company	$ 101	$ 114	$ 60	$ (111)	$ 164
Earnings per share of common stock (c) (d)					
Basic:					
Earnings (loss) from continuing operations	$ 0.62	$ 0.81	$ 0.37	$ (0.66)	$ 1.14
Loss from discontinued operations	(0.01)	(0.12)	—	(0.01)	(0.14)
Net earnings (loss)	$ 0.61	$ 0.69	$ 0.37	$ (0.67)	$ 1.00
Diluted:					
Earnings (loss) from continuing operations	$ 0.62	$ 0.80	$ 0.37	$ (0.66)	$ 1.13
Loss from discontinued operations	(0.01)	(0.12)	—	(0.01)	(0.14)
Net earnings (loss)	$ 0.61	$ 0.68	$ 0.37	$ (0.67)	$ 0.99

(1) See Note 1 for restatement information.

(c) Amounts management considers not representative of ongoing operations include:

For the third quarter, included net charges totaling $63 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.38.

For the fourth quarter, included net charges totaling $186 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $1.12.

(d) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit

relationship of possible controls and procedures. Also, the Company has investments in certain unconsolidated entities. As the Company does not control or manage these entities, its disclosure controls and procedures with respect to such entities are necessarily substantially more limited than those maintained with respect to its consolidated subsidiaries.

The Company's Chief Executive Officer and Chief Financial Officer evaluated the effectiveness of its disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 (Exchange Act) as of December 31, 2015.

At the time of the Original Filing of its Form 10-K on February 16, 2016, the Company's management, including its Chief Executive Officer and Chief Financial Officer, concluded that the Company's disclosure controls and procedures were effective as of December 31, 2015.

Subsequent to the evaluation described above, management has determined that a material weakness exists in the Company's internal control over financial reporting. As a result of this material weakness described in its Management's Report on Internal Control over Financial Reporting, management has concluded that the Company's disclosure controls and procedures were not effective as of December 31, 2015.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

The Company acquired the Vitro Business on September 1, 2015, which represented approximately 4% of total net sales and approximately 26% of the Company's total assets as of December 31, 2015. As the Vitro Acquisition was completed during the third quarter of 2015, the scope of the Company's assessment of the effectiveness of its internal control over financial reporting does not include the Vitro Business. This exclusion is pursuant to the SEC's general guidance that an assessment of a recently acquired business' internal control over financial reporting from the Company's assessment of its internal control may be omitted from the scope of the Company's assessment of its internal control over financial reporting for twelve months following the date of acquisition.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2015. In making this assessment management used the criteria for effective internal control over financial reporting as described in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO framework) in 2013.

At the time of the Original Filing of its Form 10-K on February 16, 2016, the Company's management, including its Chief Executive Officer and Chief Financial Officer, concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2015. Subsequent to this assessment, using the criteria described above, management identified the material weakness described below. A material weakness is a deficiency, or combination of deficiencies in material control over financial reporting, such that there is a reasonable possibility that a material misunderstanding of the annual or interim financial statements will not be prevented or detected on a timely basis.

Determination of asbestos-related liabilities - The Company identified a deficiency in the design of its control activities for the estimation of liabilities related to probable losses for unasserted asbestos claims. The Company did not have sufficient controls in place to provide reasonable assurance that a material error would be prevented or detected related to the application of ASC 450 to the estimation of probable losses from unasserted asbestos claims. This deficiency in the design of the Company's controls resulted in a material error in the Company's financial statements as described further in Note 1 to the Consolidated Financial Statements.

Management concluded that the matter described above is a material weakness in the Company's internal control over financial reporting and that the Company did not maintain effective internal control over financial reporting as of December 31, 2015.

The Company's independent registered public accounting firm, Ernst & Young LLP, that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting which is included below.

Changes in Internal Control Over Financial Reporting

Planned remediation of material weakness – The Company is committed to remediating the control deficiency that gave rise to the material weakness described in Management's Report on Internal Control over Financial Reporting. Management is responsible for implementing changes and improvements to internal control over financial reporting and for remediating the control deficiency that gave rise to this material weakness.

To remediate the material weakness in the Company's internal control over financial reporting described in Management's Report on Internal Control over Financial Reporting, the Company will establish policies and procedures for the review, approval and application of generally accepted accounting principles to, and disclosure with respect to, unasserted asbestos claims. In particular, the Company intends to complement its revised method of determining its asbestos-related liability (see Note 12 to the Consolidated Financial Statements) with appropriate analytical and review controls to ensure that the Company's liability and related disclosures comply with generally accepted accounting principles.

As the Company continues to evaluate and improve the effectiveness of internal control over financial reporting, the Company may determine to take additional measures to address its material weakness or determine to modify the remediation efforts described above. Until the remediation efforts discussed above, including any additional remediation efforts that the Company identifies as necessary, are implemented, tested and deemed to be operating effectively, the material weakness described above will continue to exist. The Company currently expects that these activities will be completed as part of its annual comprehensive legal review of asbestos-related liabilities and costs (as described in Note 12 to the Consolidated Financial Statements) to be completed in the fourth quarter 2016.

Other than the matter described above, there were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2015 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

We have audited Owens Illinois, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Owens-Illinois, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As indicated in the accompanying Management's Report on Internal Control over Financial Reporting, management's assessment of and conclusion on the effectiveness of internal control over financial reporting did not include the internal controls of the food and beverage glass container business of Vitro, S.A.B. de C.V. and its subsidiaries in the United States, Mexico, and Bolivia (the "Vitro Business"), which is included in the December 31, 2015 consolidated financial statements of Owens-Illinois, Inc. and constituted approximately 26% of the Company's total assets as of December 31, 2015 and approximately 4% of total net sales for the year then ended. Our audit of internal control over financial reporting of Owens-Illinois, Inc. also did not include an evaluation of the internal control over financial reporting of the Vitro Business.

In our report dated February 16, 2016, we expressed an unqualified opinion that Owens-Illinois, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria. Management has subsequently identified a deficiency in controls related to the Company's asbestos-related liabilities, and has further concluded that such deficiency represented a material weakness as of December 31, 2015. As a result, management has revised its assessment, as presented in the accompanying Management's Report on Internal Control Over Financial Reporting, to conclude that Owens-

Illinois, Inc.'s internal control over financial reporting was not effective as of December 31, 2015. Accordingly, our present opinion on the effectiveness of Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2015, as expressed herein, is different from that expressed in our previous report.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weakness has been identified and included in management's assessment. Management has identified a material weakness in controls related to the design of its control activities for the estimation of liabilities related to probable losses for unasserted asbestos claims. We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2015, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2015. This material weakness was considered in determining the nature, timing and extent of audit tests applied in our audit of the 2015 consolidated financial statements, and this report does not affect our report dated February 16, 2016, except for Note 1 of the consolidated financial statements, as to which the date is May 13, 2016, which expressed an unqualified opinion on those financial statements.

In our opinion, because of the effect of the material weakness described above on the achievement of the objectives of the control criteria, Owens-Illinois, Inc. has not maintained effective internal control over financial reporting as of December 31, 2015, based on the COSO criteria.

/s/ Ernst & Young LLP
Toledo, Ohio
February 16, 2016, except for the effect of the material weakness described in the seventh paragraph, as to which the date is May 13, 2016

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to non-officer directors and corporate governance is included in the 2016 Proxy Statement in the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" and such information is incorporated herein by reference.

Information with respect to executive officers is included herein in Item 1.

Code of Business Conduct and Ethics

The Company's Code of Business Conduct and Ethics, which is applicable to all directors, officers and employees of the Company, including the principal executive officer, the principal financial officer and the principal accounting officer, is available on the Investor Relations section of the Company's web site (www.o-i.com). A copy of the Code is also available in print to share owners upon request, addressed to the Corporate Secretary at Owens-Illinois, Inc., One Michael Owens Way, Perrysburg, Ohio 43551. The Company

intends to post amendments to or waivers from its Code of Business Conduct and Ethics (to the extent applicable to the Company's directors, executive officers or principal financial officers) at this location on its web site.

ITEM 11. EXECUTIVE COMPENSATION

The section entitled "Executive Compensation," exclusive of the subsection entitled "Board Compensation Committee Report," which is included in the 2016 Proxy Statement, is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The section entitled "Security Ownership of Certain Beneficial Owners and Management" which is included in the 2016 Proxy Statement is incorporated herein by reference.

The following table summarizes securities authorized for issuance under equity compensation plans as of December 31, 2015.

	Equity Compensation Plan Information		
	(a)	(b)	(c)
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1) (thousands)	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (thousands)
Equity compensation plans approved by security holders	2,621	$ 23.64	8,892
Equity compensation plans not approved by security holders	—	—	—
Total	2,621	$ 23.64	8,892

(1) Represents options to purchase shares of the Company's common stock. There are no outstanding warrants or rights.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The section entitled "Director and Executive Compensation and Other Information," exclusive of the subsection entitled "Board Compensation Committee Report on Executive Compensation," which is included in the 2016 Proxy Statement, is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services is included in the 2016 Proxy Statement in the section entitled "Independent Registered Public Accounting Firm" and such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Index of Financial Statements and Financial Statement Schedules Covered by Report of Independent Auditors.

(a) DOCUMENTS FILED AS PART OF THIS REPORT

1. See Index to Consolidated Financial Statements on page 51 hereof.
2. See Quarterly Results (Unaudited) beginning on page 107 hereof.
3. Financial Statement Schedule:

	10-K Page
For the years ended December 31, 2015, 2014, and 2013:	
II—Valuation and Qualifying Accounts (Consolidated)	S-1
All other schedules have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule.	
(ii) Separate Financial Statements of Affiliates Whose Securities Are Pledged As Collateral	120

4. See Exhibit Index beginning on page 115 hereof.

EXHIBIT INDEX

S-K Item 601 No.		Document
2.1	—	Stock Purchase Agreement, dated as of May 12, 2015, by and between Owens-Brockway Glass Container Inc. and Vitro, S.A.B. de C.V., Distribuidora Alcali, S.A. de C.V. and Vitro Packaging, LLC (filed as Exhibit 2.1 to the Owens-Illinois, Inc.'s Form 8-K/A filed on May 13, 2015, File No. 1-9576, and incorporated herein by reference).
3.1	—	Third Restated Certificate of Incorporation of Owens-Illinois, Inc. (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2012, File No. 1-9576, and incorporated herein by reference).
3.2	—	Third Amended and Restated Bylaws of Owens-Illinois, Inc., (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 8-K dated April 23, 2009, File No. 1-9576, and incorporated herein by reference).
4.1	—	Indenture dated as of May 20, 1998, between Owens-Illinois, Inc. and The Bank of New York, as Trustee (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.2	—	Officers' Certificate, dated May 20, 1998, establishing the terms of the 7.80% Senior Notes due 2018; including the Form of 7.80% Senior Note due 2018 (filed as Exhibits 4.5 and 4.9, respectively, to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.3	—	Supplemental Indenture, dated as of June 26, 2001 among Owens-Illinois, Inc., Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc. and The Bank of New York, as Trustee (May 20, 1998 Indenture) (filed as Exhibit 4.1 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2001, File No. 1-9576, and incorporated herein by reference).
4.4	—	Indenture, dated as of September 15, 2010, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar, Luxembourg paying agent and transfer agent, including the form of the Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated September 10, 2010, File No. 33-13061, and incorporated herein by reference).
4.5	—	Indenture dated as of March 22, 2013, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar and Luxembourg transfer agent, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated March 22, 2013, File No. 33-13061, and incorporated herein by reference).
4.6	—	Indenture dated as of December 3, 2014, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2022 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated December 3, 2014, File No. 33-13061, and incorporated herein by reference).
4.7	—	Indenture dated as of August 24, 2015, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2023 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated August 24, 2015, File No. 33-13061, and incorporated herein by reference).

S-K Item 601 No.		Document
4.8	—	Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated as of April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.9	—	Amendment No. 1, dated July 24, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.2 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2015, File No. 1-9576, and incorporated herein by reference).
4.10	—	Amendment No. 2, dated September 1, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 10.1 to Owens-Illinois Inc.'s Form 8-K dated September 1, 2015, File No. 1-9576, and incorporated herein by reference).
4.11	—	Amendment No. 3, dated September 29, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.4 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2015, File No. 1-9576, and incorporated herein by reference).
4.12	—	First Incremental Amendment, dated September 1, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 10.2 to Owens-Illinois Inc.'s Form 8-K dated September 1, 2015, File No. 1-9576, and incorporated herein by reference).
4.13	—	Third Amended and Restated Intercreditor Agreement, dated as of May 19, 2011, by and among Deutsche Bank AG, New York Branch, as Administrative Agent for the lenders party to the Credit Agreement (as defined therein) and Deutsche Bank Trust Company Americas, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.14	—	Fourth Amended and Restated Pledge Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc., and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.15	—	Amended and Restated Security Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., each of the direct and indirect subsidiaries of Owens-Illinois Group, Inc. signatory thereto, and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) (filed as Exhibit 4.3 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).

S-K Item 601 No.	Document
—	Amendment No. 4, dated February 3, 2016, to the Amended and Restated Credit
4.16	Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois Inc.'s Form 8-K dated February 3, 2016, File No. 1-9576, and incorporated herein by reference).
—	Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as
10.1*	Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1998, File No. 1-9576, and incorporated herein by reference).
—	First Amendment to Amended and Restated Owens-Illinois Supplemental Retirement
10.2*	Benefit Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2000, File No. 1-9576, and incorporated herein by reference).
—	Second Amendment to Amended and Restated Owens-Illinois Supplemental Retirement
10.3*	Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2002, File No. 1-9576, and incorporated herein by reference).
—	Third Amendment to Amended and Restated Owens-Illinois Supplemental Retirement
10.4*	Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2003, File No. 1-9576, and incorporated herein by reference).
—	Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.26 to
10.5*	Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
—	First Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as
10.6*	Exhibit 10.27 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
—	Second Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as
10.7*	Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 1997, File No. 1-9576, and incorporated herein by reference).
—	Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as
10.8*	Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1999, File No. 1-9576, and incorporated herein by reference).
—	First Amendment to Amended and Restated 1997 Equity Participation Plan of Owens-
10.9*	Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2002, File No. 1-9576, and incorporated herein by reference).
—	Owens-Illinois, Inc. Executive Deferred Savings Plan (filed as Exhibit 10.1 to Owens-
10.10*	Illinois, Inc.'s Form 10-Q for the quarter ended September 30, 2001, File No. 1-9576, and incorporated herein by reference).
—	2004 Equity Incentive Plan for Directors of Owens-Illinois, Inc. (filed as Exhibit 10.1 to
10.11*	Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2004, File No. 1-9576, and incorporated herein by reference).
—	Owens-Illinois 2004 Executive Life Insurance Plan (filed as Exhibit 10.32 to Owens-
10.12*	Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
—	Owens-Illinois 2004 Executive Life Insurance Plan for Non-U.S. Employees (filed as
10.13*	Exhibit 10.33 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.	Document
—	Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan dated as of April
10.14*	24, 2009 (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2009, File No. 1-9576, and incorporated herein by reference).
—	Form of Non-Qualified Stock Option Agreement for use under the Owens-Illinois, Inc.
10.15*	2005 Incentive Award Plan (filed as Exhibit 10.25 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
—	Form of Restricted Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive
10.16*	Award Plan (filed as Exhibit 10.30 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
—	Form of Phantom Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive
10.17*	Award Plan (filed as Exhibit 10.31 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
—	Form of Restricted Stock Unit Agreement for use under the Owens-Illinois, Inc. 2005
10.18*	Incentive Award Plan (filed as Exhibit 10.28 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
—	Form of Performance Share Unit Agreement for use under the Owens-Illinois, Inc. 2005
10.19*	Incentive Award Plan (filed as Exhibit 10.29 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
—	Amended and restated letter agreement between Owens-Illinois, Inc. and Albert P.L.
10.20*	Stroucken (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated October 26, 2011, File No. 1-9576, and incorporated herein by reference).
—	Second Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as
10.21*	Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 31, 2014, File No. 1-9576, and incorporated herein by reference).
—	Form of Non-Qualified Stock Option Agreement for use under Owens-Illinois, Inc.'s
10.22*	Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
—	Form of Restricted Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second
10.23*	Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
—	Form of Performance Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second
10.24*	Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
—	Owens-Illinois, Inc. Executive Severance Policy (filed as Exhibit 10.4 to Owens-Illinois,
10.25*	Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
	Letter Agreement dated March 7, 2015, between Owens-Illinois, Inc. and Stephen P.
10.26*	Bramlage, Jr. (filed as Exhibit 10.5 to Owens-Illinois, Inc.'s Form 8-K dated March 7,
—	2015, File No. 1-9576, and incorporated herein by reference).
	Letter Agreement signed November 20, 2015, between Owens-Illinois, Inc. and Jan Bertsch
10.27*	(filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated November 23, 2015, File
—	No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
	—	Computation of Ratio of Earnings to Fixed Charges (filed herewith).
12		
21	—	Subsidiaries of Owens-Illinois, Inc. (filed herewith).
23	—	Consent of Independent Registered Public Accounting Firm (filed herewith).
24	—	Owens-Illinois, Inc. Power of Attorney (filed herewith).
31.1	—	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	—	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.1**	—	Certification of Principal Executive Officer pursuant to 18 U.S.C Section 1350 (filed herewith).
32.2**	—	Certification of Principal Financial Officer pursuant to 18 U.S.C Section 1350 (filed herewith).
101	—	Financial statements from the Annual Report on Form 10-K/A of Owens-Illinois, Inc. for the year ended December 31, 2015, formatted in XBRL: (i) the Consolidated Results of Operations, (ii) the Consolidated Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Share Owners' Equity, (v) the Consolidated Cash Flows and (vi) the Notes to Consolidated Financial Statements.

* Indicates a management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(c).

** This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SEPARATE FINANCIAL STATEMENTS OF AFFILIATES WHOSE SECURITIES ARE PLEDGED AS COLLATERAL.

1) Financial statements of Owens-Brockway Packaging, Inc. and subsidiaries including consolidated balance sheets as of December 31, 2015 and 2014, and the related results of operations, comprehensive income, share owners' equity, and cash flows for the years ended December 31, 2015, 2014 and 2013.

2) Financial statements of Owens-Brockway Glass Container Inc. and subsidiaries including consolidated balance sheets as of December 31, 2015 and 2014, and the related results of operations, comprehensive income, share owners' equity, and cash flows for the years ended December 31, 2015, 2014 and 2013.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owner of
Owens-Brockway Packaging, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Brockway Packaging, Inc. (the Company) as of December 31, 2015 and 2014, and the related consolidated statements of results of operations, comprehensive income, shareowners' equity and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Brockway Packaging, Inc. at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP
Toledo, Ohio
February 16, 2016

Owens-Brockway Packaging, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions

Years ended December 31,	2015	2014	2013
Net sales	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold	(5,060)	(5,523)	(5,621)
Gross profit	1,096	1,261	1,346
Selling and administrative expense	(389)	(412)	(429)
Research, development and engineering expense	(64)	(63)	(62)
Equity earnings	60	64	67
Interest expense, net	(232)	(210)	(210)
Other expense, net	(77)	(138)	(123)
Earnings from continuing operations before income taxes	394	502	589
Provision for income taxes	(101)	(93)	(120)
Earnings from continuing operations	293	409	469
Loss from discontinued operations	(4)	(4)	(10)
Net earnings	289	405	459
Net earnings attributable to noncontrolling interests	(23)	(28)	(13)
Net earnings attributable to the Company	$ 266	$ 377	$ 446
Amounts attributable to the Company:			
Earnings from continuing operations	$ 270	$ 381	$ 456
Loss from discontinued operations	(4)	(4)	(10)
Net earnings	$ 266	$ 377	$ 446

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2015	2014	2013
Net earnings	$ 289	$ 405	$ 459
Other comprehensive income (loss):			
Foreign currency translation adjustments	(529)	(305)	(232)
Pension and other postretirement benefit adjustments, net of tax	13	112	35
Change in fair value of derivative instruments, net of tax	(6)	1	2
Other comprehensive income (loss)	(522)	(192)	(195)
Total comprehensive income (loss)	(233)	213	264
Comprehensive income attributable to noncontrolling interests	(7)	(7)	(7)
Comprehensive income (loss) attributable to the Company	$ (240)	$ 206	$ 257

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2015	2014
Assets		
Current assets:		
Cash and cash equivalents	$ 394	$ 483
Trade receivables, net of allowances of $29 million and $34 million at December 31, 2015 and 2014, respectively	562	550
Inventories	1,007	1,035
Prepaid expenses and other current assets	352	249
Total current assets	2,315	2,317
Other assets:		
Equity investments	409	427
Pension assets	32	22
Other assets	527	606
Intangibles	597	
Goodwill	2,489	1,893
Total other assets	4,054	2,948
Property, plant and equipment:		
Land, at cost	248	221
Buildings and equipment, at cost:		
Buildings and building equipment	1,080	1,055
Factory machinery and equipment	4,520	4,296
Transportation, office and miscellaneous equipment	68	85
Construction in progress	236	160
Net property, plant and equipment	6,152	5,817
Less accumulated depreciation	3,221	3,405
Net property, plant and equipment	2,931	2,412
Total assets	$ 9,300	$ 7,677

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions

December 31,	2015	2014
Liabilities and Share Owner's Equity		
Current liabilities:		
Accounts payable including amount to related parties of $3 ($14 in 2014)	$ 1,200	$ 1,128
Salaries and wages	139	135
U.S. and foreign income taxes	34	43
Other accrued liabilities	332	322
Short-term loans	160	127
Long-term debt due within one year	67	359
Total current liabilities	1,932	2,114
External long-term debt	5,087	2,698
Deferred taxes	200	133
Pension benefits	224	230
Nonpension postretirement benefits	66	78
Other liabilities	186	207
Share owner's equity:		
Investment by and advances from Parent	2,311	2,408
Accumulated other comprehensive loss	(814)	(308)
Total share owner's equity of the Company	1,497	2,100
Noncontrolling interests	108	117
Total share owner's equity	1,605	2,217
Total liabilities and share owner's equity	$ 9,300	$ 7,677

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED SHARE OWNER'S EQUITY

Dollars in millions

	Investment by and Advances from Parent	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Share Owner's Equity
Balance on January 1, 2013	2,142	52	174	2,368
Net intercompany transactions	(283)			(283)
Net earnings	446		13	459
Other comprehensive loss		(189)	(6)	(195)
Contribution from noncontrolling interests			5	5
Distributions to noncontrolling interests			(22)	(22)
Deconsolidation of subsidiary			(17)	(17)
Balance on December 31, 2013	2,305	(137)	147	2,315
Net intercompany transactions	(274)			(274)
Net earnings	377		28	405
Other comprehensive loss		(171)	(21)	(192)
Distributions to noncontrolling interests			(37)	(37)
Balance on December 31, 2014	2,408	(308)	117	2,217
Net intercompany transactions	(345)			(345)
Net earnings	266		23	289
Other comprehensive loss		(506)	(16)	(522)
Distributions to noncontrolling interests			(22)	(22)
Acquisitions of noncontrolling interests	(18)		6	(12)
Balance on December 31, 2015	$ 2,311	$ (814)	$ 108	$ 1,605

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2015	2014	2013
Operating activities:			
Net earnings	$ 289	$ 405	$ 459
Loss from discontinued operations	4	4	10
Non-cash charges (credits):			
Depreciation	319	331	345
Amortization of intangibles and other deferred items	77	75	40
Amortization of finance fees and debt discount	14	20	32
Deferred tax benefit	7	(18)	(3)
Restructuring, asset impairment and related charges	63	76	119
Non-income tax charge		69	
Acquisition-related fair value inventory adjustments	22		
Acquisition-related fair value intangible adjustments	10		
Other	126	(91)	36
Cash paid for restructuring activities	(38)	(58)	(78)
Change in non-current assets and liabilities	(117)	(25)	(134)
Change in components of working capital	101	158	124
Cash provided by continuing operating activities	877	946	950
Cash utilized in discontinued operating activities	(4)	(4)	(10)
Total cash provided by operating activities	873	942	940
Investing activities:			
Additions to property, plant and equipment	(400)	(369)	(360)
Acquisitions, net of cash acquired	(2,351)	(113)	(4)
Net cash proceeds related to sale of assets and other	1	16	10
Net activity for non-controlling partner loans		9	(16)
Deconsolidation of subsidiary			(32)
Net foreign exchange derivative activity	4		
Cash utilized in investing activities	(2,746)	(457)	(402)
Financing activities:			
Additions to long-term debt	4,538	1,226	768
Repayments of long-term debt	(2,317)	(1,100)	(1,040)
Increase (decrease) in short-term loans	51	(139)	8
Net receipts from (distribution to) parent	(346)	(276)	(307)
Payment of finance fees	(90)	(11)	(7)
Contribution from noncontrolling interests			5
Distributions to noncontrolling interests	(22)	(37)	(22)
Cash utilized in financing activities	1,814	(337)	(595)
Effect of exchange rate fluctuations on cash	(30)	(21)	(7)
Increase (decrease) in cash	(89)	127	(64)
Cash at beginning of year	483	356	420
Cash at end of year	$ 394	$ 483	$ 356

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tabular data dollars in millions

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Brockway Packaging, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Relationship with Owens-Illinois Group, Inc. and Owens-Illinois, Inc. The Company is a 100%-owned subsidiary of Owens-Illinois Group, Inc. ("OI Group") and an indirect subsidiary of Owens-Illinois, Inc. ("OI Inc."). Although OI Inc. does not conduct any operations, it has substantial obligations related to outstanding indebtedness and asbestos-related payments. OI Inc. relies primarily on distributions from its direct and indirect subsidiaries to meet these obligations.

For federal and certain state income tax purposes, the taxable income of the Company is included in the consolidated tax returns of OI Inc. and income taxes are allocated to the Company on a basis consistent with separate returns.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from short-term forward exchange contracts not designated as hedges are classified as a financing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers", which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company is currently evaluating the effect this standard will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor determined the effect of the standard on its ongoing financial reporting.

Presentation of Debt Issuance Costs - In April 2015, the FASB issued ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance Costs." This standard amends existing guidance to require the presentation of debt issuance costs in the balance sheet as a deduction from the carrying amount of the related debt liability instead of a deferred charge (asset). In the third quarter 2015, the Company elected to adopt this new guidance.

As a result of the adoption of ASU No. 2015-03 certain prior year amounts have been reclassified for consistency with the current period presentation. These reclassifications had no effect on the reported results of operations for any period. Previously, the Company had classified these debt issuance costs as an asset in "other assets". Accordingly, the Company has revised the classification to report these debt issuance costs under the "long-term debt" caption on the balance sheet. For the period ended December 31, 2014, the total of debt issuance costs that was previously classified as "other assets" was $15 million.

Business Combinations – In September 2015, the FASB issued ASU No. 2015-16, "Simplifying the Accounting for Measurement-Period Adjustments". This standard allows for the acquirer to recognize adjustments to provisional amounts that are identified during the measurement period in the reporting periods in which the adjustment amounts are determined. The Company elected to adopt this new guidance as of the third quarter of 2015.

Deferred Taxes – In November 2015, the FASB issued ASU No. 2015-17, "Balance Sheet Classification of Deferred Taxes". This standard requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The Company elected to adopt this new guidance prospectively in the fourth quarter of 2015. Prior periods were not retrospectively adjusted.

Participation in OI Inc. Stock Option Plans and Other Stock Based Compensation The Company participates in the equity compensation plans of OI Inc. under which employees of the Company may be granted options to purchase common shares of OI Inc., restricted common shares of OI Inc., or restricted share units of OI Inc.

Stock Options

In general, subject to change in control, options become exercisable 25% per year beginning on the first anniversary of grant. No options may be exercised in whole or in part during the first year after the date granted.

In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Restricted Shares and Restricted Share Units

Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of OI Inc.'s common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of OI Inc.'s Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of OI Inc.'s common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

As discussed in Note 21, costs incurred under these plans by OI Inc. related to stock-based compensation awards granted directly to the Company's employees are included in the allocable costs charged to the Company and other operating subsidiaries of OI Inc. on an intercompany basis.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015 (see Note 17), the Company has renamed the former South America segment to the Latin America segment. This change in segment name was made to reflect the addition of the Mexican and Bolivian operations from the Vitro Acquisition into the former South America segment. The acquired Vitro food and beverage glass container distribution business located in the United States is included in the North American operating segment. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported

within Other. These include licensing, equipment manufacturing, global engineering, and certain equity investments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2015	2014	2013
Net sales:			
Europe	$ 2,324	$ 2,794	$ 2,787
North America	2,039	2,003	2,002
Latin America	1,064	1,159	1,186
Asia Pacific	671	793	966
Reportable segment totals	6,098	6,749	6,941
Other	58	35	26
Net sales	$ 6,156	$ 6,784	$ 6,967

	2015	2014	2013
Segment operating profit:			
Europe	$ 209	$ 353	$ 305
North America	265	240	307
Latin America	183	227	204
Asia Pacific	83	88	131
Reportable segment totals	740	908	947
Items excluded from segment operating profit:			
Other	2	(1)	(29)
Restructuring, asset impairment and other charges	(80)	(91)	(119)
Strategic transaction costs	(4)		
Acquisition-related fair value inventory adjustments	(22)		
Acquisition-related fair value intangible adjustments	(10)		
Non-income tax charge		(69)	
Pension Settlement charges		(35)	
Interest expense, net	(232)	(210)	(210)
Earnings (loss) from continuing operations before income taxes	$ 394	$ 502	$ 589

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Other	Consolidated Totals
Total assets:							
2015	$ 2,902	$ 2,492	$ 2,807	$ 917	$ 9,118	$ 182	$ 9,300
2014	3,215	1,963	1,300	1,018	7,496	181	7,677
2013	3,494	1,986	1,467	1,149	8,096	89	8,185
Equity investments:							
2015	$ 78	$ 22	$ —	$ 145	$ 245	$ 164	$ 409
2014	81	24		153	258	169	427
2013	84	25		155	264	51	315
Equity earnings:							
2015	$ 16	$ 19	$ —	$ 7	$ 42	$ 18	$ 60
2014	19	17		4	40	24	64
2013	17	16		10	43	24	67
Capital expenditures:							
2015	$ 164	$ 97	$ 89	$ 50	$ 400	$ —	$ 400
2014	188	89	55	34	366	3	369
2013	130	100	80	36	346	14	360
Depreciation and amortization expense:							
2015	$ 120	$ 128	$ 107	$ 40	$ 395	$ 1	$ 396
2014	140	131	79	53	403	3	406
2013	139	110	72	62	383	2	385

The Company’s net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2015	$ 704	$ 2,227	$ 2,931
2014	678	1,734	2,412
2013	651	1,946	2,597

The Company’s net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2015	$ 1,939	$ 4,217	$ 6,156
2014	1,852	4,932	6,784
2013	1,809	5,158	6,967

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015—10%, 2014—11%, 2013—11%).

3. Inventories

Major classes of inventory are as follows:

	2015	2014
Finished goods	$ 858	$ 884
Raw materials	113	110
Operating supplies	36	41
	$ 1,007	$ 1,035

4. Equity Investments

At December 31, 2015 the Company's ownership percentage in equity associates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50 %	Glass container manufacturer
CO Vidrieria SARL	50 %	Glass container manufacturer
Rocky Mountain Bottle Company	50 %	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25 %	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50 %	Glass container manufacturer
Vetri Speciali SpA	50 %	Specialty glass manufacturer

In 2014, the Company entered into the COV joint venture with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico.

In 2013, changes were made to the VeMe joint venture agreement that resulted in the Company relinquishing control of the joint venture and, therefore, deconsolidating the entity. No gain or loss was recognized related to the deconsolidation as the fair value of the entity was equal to the carrying amount of the entity's assets and liabilities. The fair value, which the Company classified as Level 3 in the fair value hierarchy, was computed using a discounted cash flow analysis based on projected future cash flows of the joint venture.

Summarized information pertaining to the Company's equity associates follows:

	2015	2014	2013
Equity in earnings:			
Non-U.S.	$ 23	$ 23	$ 27
U.S.	37	41	40
Total	$ 60	$ 64	$ 67
Dividends received	$ 53	$ 54	$ 67

Summarized combined financial information for equity associates is as follows (unaudited):

	2015	2014
At end of year:		
Current assets	$ 430	$ 479
Non-current assets	959	718
Total assets	1,389	1,197
Current liabilities	203	217
Other liabilities and deferred items	211	191
Total liabilities and deferred items	414	408
Net assets	$ 975	$ 789

	2015	2014	2013
For the year:			
Net sales	$ 719	$ 752	$ 699
Gross profit	$ 193	$ 198	$ 185
Net earnings	$ 139	$ 150	$ 149

The Company made purchases of approximately $161 million and $188 million from equity affiliates in 2015 and 2014, respectively, and owed approximately $66 million and $79 million to equity affiliates as of December 31, 2015 and 2014, respectively.

There is a difference of approximately $18 million as of December 31, 2015, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2015, 2014 and 2013 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2013	1,006	743	325	5	2,079
Translation effects	38	(9)	(49)		(20)
Balance as of December 31, 2013	1,044	734	276	5	2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisitions		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	$ 840	$ 1,020	$ 624	$ 5	$ 2,489

The acquired goodwill in 2015 primarily relates to the Vitro Acquisition (see Note 17).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2015, 2014 and 2013.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2015, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 17). The intangibles consist of the following at December 31, 2015:

	As of December 31, 2015			
	Gross Carrying Amount	Accumulated Amortization	Translation Effects	Net Carrying Amount
Definite-lived intangible assets				
Customer list intangibles	$ 635	$ (26)	$ (12)	$ 597

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Amortization expense for intangible assets was $26 million, $0 million and $0 million for the years ended December 31, 2015, 2014, 2013, respectively. Estimated amortization related to intangible assets through 2020 is

as follows: 2016, $42 million; 2017, $45 million; 2018, $44 million; 2019, $44 million; and 2020, $42 million. No impairment existed on these assets at December 31, 2015.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets consist of the following at December 31, 2015 and 2014:

	2015	2014
Prepaid expenses	$ 42	$ 52
Value added taxes	195	71
Other	115	126
	$ 352	$ 249

In conjunction with the Vitro Acquisition, part of the total consideration paid by the Company relates to a value added tax receivable of approximately $143 million. This amount is included in “Value added taxes” above and is expected to be refunded to the Company in approximately twelve months.

Other assets (noncurrent) consist of the following at December 31, 2015 and 2014:

	2015	2014
Deferred tax assets	$ 177	$ 203
Deferred returnable packaging costs	110	126
Repair part inventories	118	107
Value added taxes	17	58
Capitalized software	86	101
Deferred finance fees	6	7
Other	13	4
	$ 527	$ 606

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2015 and 2014,

the Company had entered into commodity forward contracts covering approximately 7,300,000 MM BTUs and 450,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2015 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized loss of $4 million at December 31, 2015 and an unrecognized loss of less than $1 million at December 31, 2014 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2015 and 2014 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2015, 2014 and 2013 is as follows:

Amount of Gain (Loss) recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of Gain (Loss) reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2015	2014	2013	2015	2014	2013
$ (4)	$ 3	$ 1	$ (1)	$ 2	$ (1)

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2015 and 2014, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $790 million and $524 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2015, 2014 and 2013 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2015	2014	2013
Other expense	$ 10	$ (8)	$ (28)

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables,

and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year. The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2015 and 2014:

		Fair Value	
	Balance Sheet Location	2015	2014
Asset Derivatives:			
Derivatives not designated as hedging instruments:			
Forward exchange derivative contracts	a	$ 14	$ 10
Total asset derivatives		$ 14	$ 10
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ 3	$ —
Derivatives not designated as hedging instruments:			
Forward exchange derivative contracts	c	2	4
Total liability derivatives		$ 5	$ 4

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

Since 2011, the Company has implemented the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with

market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0 million in 2015, $1 million in 2014 and $16 million in 2013 for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company does not expect to execute any further actions under this program and recorded total cumulative charges of $127 million.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $5 million, $73 million and $49 million for the years ended 2015, 2014 and 2013, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company has recorded total cumulative charges of $220 million under this program.

Other Restructuring Actions

The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives. In 2013, there were charges of $16 million for employee costs related to the closure of flat glass operations in Latin America, $13 million for employee costs related to global headcount reduction initiatives, and $3 million for miscellaneous other costs.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2014	$ 30	$ 20	$ 64	$ 114
2014 charges	1	73	2	76
Write-down of assets to net realizable value		(46)		(46)
Net cash paid, principally severance and related benefits	(12)	(20)	(26)	(58)
Pension charges transferred to other accounts		(7)		(7)
Other, including foreign exchange translation	(7)	(8)	(4)	(19)
Balance at December 31, 2014	12	12	36	60
2015 charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)
Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2015, the Company's estimates include

approximately $29 million for employee benefits costs, $7 million for environmental remediation costs, and $7 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company participates in OI Inc.'s defined benefit pension plans for a substantial number of employees located in the United States. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. OI Inc.'s policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. Independent actuaries determine pension costs for each subsidiary of OI Inc. included in the plans; however, accumulated benefit obligation information and plan assets pertaining to each subsidiary have not been separately determined. As such, the accumulated benefit obligation and the plan assets related to the pension plans for domestic employees have been retained by another subsidiary of OI Inc. Net expense to results of operations for the Company's allocated portion of the domestic pension costs amounted to $24 million in 2015, $19 million in 2014 and $48 million in 2013.

OI Inc. also sponsors several defined contribution plans for all salaried and hourly U.S. employees of the Company. Participation is voluntary and participants' contributions are based on their compensation. OI Inc. matches contributions of participants, up to various limits, in substantially all plans. OI Inc. charges the Company for its share of the match. The Company's share of the contributions to these plans amounted to $27 million in 2015, $17 million in 2014 and $13 million in 2013.

The Company also has defined benefit pension plans covering a substantial number of employees in several non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the non-U.S. pension plans benefit obligations for the year were as follows:

	2015	2014
Obligations at beginning of year	$ 1,311	$ 1,866
Change in benefit obligations:		
Service cost	15	23
Interest cost	44	69
Actuarial (gain) loss, including the effect of change in discount rates	(9)	131
Curtailment and plan amendment		(567)
Acquisitions	37	
Participant contributions	1	5
Benefit payments	(58)	(91)
Foreign currency translation	(131)	(125)
Net change in benefit obligations	(101)	(555)
Obligations at end of year	$ 1,210	$ 1,311

The changes in the fair value of the non-U.S. pension plans' assets for the year were as follows:

	2015	2014
Fair value at beginning of year	$ 1,094	$ 1,578
Change in fair value:		
Actual gain on plan assets	42	188
Benefit payments	(58)	(91)
Employer contributions	15	28
Participant contributions	1	5
Acquisitions	22	
Settlements		(519)
Foreign currency translation	(104)	(94)
Other		(1)
Net change in fair value of assets	(82)	(484)
Fair value at end of year	$ 1,012	$ 1,094

The funded status of the non-U.S. pension plans at year end was as follows:

	2015	2014
Plan assets at fair value	$ 1,012	$ 1,094
Projected benefit obligations	1,210	1,311
Plan assets less than projected benefit obligations	(198)	(217)
Items not yet recognized in pension expense:		
Actuarial loss	320	347
Prior service credit	(1)	
	319	347
Net amount recognized	$ 121	$ 130

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2015 and 2014 as follows (amounts are pretax):

	2015	2014
Pension assets	$ 32	$ 22
Current pension liability, included with Other accrued liabilities	(6)	(9)
Pension benefits	(224)	(230)
Accumulated other comprehensive loss	319	347
Net amount recognized	$ 121	$ 130

The accumulated benefit obligation for all defined benefit pension plans was $1,146 million and $1,234 million at December 31, 2015 and 2014, respectively.

	2015	2014
Current year actuarial (gain) loss	$ 15	$ (23)
Amortization of actuarial loss	(15)	(20)
Amortization of prior service credit		2
Curtailment and plan amendment		22
Settlement		(64)
	—	(83)
Translation	(31)	(32)
	$ (31)	$ (115)

The components of the non-U.S. pension plans' net pension expense were as follows:

	2015	2014	2013
Service cost	$ 15	$ 23	$ 33
Interest cost	44	69	72
Expected asset return	(67)	(86)	(91)
Amortization:			
Actuarial loss	15	18	28
Prior service credit	—	—	(1)
Net amortization	15	18	27
Net expense	$ 7	$ 24	$ 41

The Company settled the liability associated with its pension plan in the Netherlands which resulted in a non-cash charge of approximately $35 million in the fourth quarter of 2014. Pension expense excludes $3 million and $6 million of pension settlement costs that were recorded in restructuring expense in 2014 and 2013, respectively. The table above excludes these charges.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2015:

Amortization:	
Actuarial loss	$ 13
Prior service cost	
Net amortization	$ 13

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds Fair Value of Plan Assets		Accumulated Benefit Obligation Exceeds Fair Value of Plan Assets	
	2015	2014	2015	2014
Projected benefit obligations	$ 876	$ 1,049	$ 876	$ 1,049
Accumulated benefit obligation	850	1,023	850	1,023
Fair value of plan assets	645	810	645	810

The weighted average assumptions used to determine benefit obligations were as follows:

	2015	2014
Discount rate	3.82 %	3.65 %
Rate of compensation increase	2.84 %	2.89 %

The weighted average assumptions used to determine net periodic pension costs were as follows:

	2015	2014	2013
Discount rate	3.65 %	4.14 %	3.89 %
Rate of compensation increase	2.89 %	3.31 %	3.08 %
Expected long-term rate of return on assets	7.21 %	7.23 %	6.34 %

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.
For 2015, the Company's weighted average expected long-term rate of return on assets was 7.23% for the non-U.S. plans. In developing this assumption, the Company evaluated input from its third party pension plan

asset managers, including their review of asset class return expectations and long-term inflation assumptions. The Company also considered its historical 10-year average return (through December 31, 2014), which was in line with the expected long-term rate of return assumption for 2015.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The following table sets forth by level, within the fair value hierarchy, the Company's pension plan assets at fair value as of December 31, 2015 and 2014:

	2015			2014			Target
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	Allocation
Cash and cash equivalents	$ 30	$ —	$ —	$ 14	$ —	$ —	
Equity securities	278	176		343	200	—	45 - 55 %
Debt securities	329	111		364	119	2	40 - 50 %
Real estate		53	5		30	3	0 - 10 %
Other		24	6		19		0 - 10 %
Total assets at fair value	$ 637	$ 364	$ 11	$ 721	$ 368	$ 5	

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2015	2014
Beginning balance	$ 5	$ 8
Net increase (decrease)	6	(3)
Ending balance	$ 11	$ 5

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2015.

In order to maintain minimum funding requirements, the Company is required to make contributions to its non-U.S. defined benefit pension plans of approximately $22 million in 2016.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2016	$ 59
2017	55
2018	56
2019	58
2020	60
2021 - 2025	331

Postretirement Benefits Other Than Pensions

OI Inc. provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. Independent actuaries determine postretirement benefit costs for each subsidiary of OI Inc.; however, accumulated postretirement benefit obligation information pertaining to each subsidiary has not been separately determined. As such, the accumulated postretirement benefit obligation has been retained by another subsidiary of OI Inc.

The Company’s net periodic postretirement benefit cost, as allocated by OI Inc., for domestic employees was $2 million, $1 million, and $3 million at December 31, 2015, 2014, and 2013, respectively.
The Company also has postretirement benefit plans covering substantially all employees in Canada. The following tables relate to the Company’s postretirement benefit plans in Canada.

The changes in the postretirement benefit obligations for the year were as follows:

	2015	2014
Obligations at beginning of year	$ 81	$ 90
Change in benefit obligations:		
Service cost	1	1
Interest cost	3	4
Actuarial (gain) loss, including the effect of changing discount rates	(1)	(2)
Benefit payments	(3)	(3)
Foreign currency translation	(13)	(7)
Other		(2)
Net change in benefit obligations	(13)	(9)
Obligations at end of year	$ 68	$ 81

The funded status of the postretirement benefit plans at year end was as follows:

	2015	2014
Postretirement benefit obligations	$ (68)	$ (81)
Items not yet recognized in net postretirement benefit cost:		
Actuarial loss	(3)	(3)
Net amount recognized	$ (71)	$ (84)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	2015	2014
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (2)	$ (3)
Nonpension postretirement benefits	(66)	(78)
Accumulated other comprehensive loss	(3)	(3)
Net amount recognized	$ (71)	$ (84)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2015 and 2014 as follows (amounts are pretax):

	2015	2014
Current year actuarial (gain) loss	$ —	$ (1)

The components of the net postretirement benefit cost for the year were as follows:

	2015	2014	2013
Service cost	$ 1	$ 1	$ 1
Interest cost	3	4	4
Net postretirement benefit cost	$ 4	$ 5	$ 5

The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost were as follows:

	2015	2014	2013
Accumulated post retirement benefit obligation	3.80 %	3.75 %	4.47 %
Net postretirement benefit cost	3.75 %	4.47 %	3.89 %

The weighted average assumed health care cost trend rates at December 31 were as follows:

	2015	2014
Health care cost trend rate assumed for next year	5.00 %	5.00 %
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2015	2014

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-Percentage Point	
	Increase	Decrease
Effect on total of service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	11	(9)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2016	$ 3
2017	3
2018	3
2019	3
2020	3
2021 - 2025	16

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in each of the years 2015, 2014 and 2013. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

10. Income Taxes

The provision (benefit) for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2015	2014	2013
U.S.	$ 125	$ 231	$ 340
Non-U.S.	269	271	249
	$ 394	$ 502	$ 589

Discontinued operations	2015	2014	2013
U.S.	$ —	$ —	$ —
Non-U.S.	(4)	(4)	(10)
	$ (4)	$ (4)	$ (10)

The provision (benefit) for income taxes consists of the following:

	2015	2014	2013
Current:			
U.S.	$ 9	$ 8	$ 7
Non-U.S.	85	103	116
	94	111	123
Deferred:			
U.S.	5	—	—
Non-U.S.	2	(18)	(3)
	7	(18)	(3)
Total:			
U.S.	14	8	7
Non-U.S.	87	85	113
Total	$ 101	$ 93	$ 120

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2015	2014	2013
Tax provision on pretax earnings (loss) from continuing operations at statutory U.S. Federal tax rate	$ 138	$ 177	$ 206
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates under U.S. rates	(12)	(22)	(18)
Changes in valuation allowance	21	(24)	(38)
Withholding tax, net	18	18	22
Non-deductible acquisition costs			
U.S. tax on intercompany dividends and interest	16	1	3
U.S. tax consolidation benefit	(70)	(47)	(51)
Tax exempt income	(3)	(5)	(6)
Tax law changes	(3)		6
Tax credit	(13)	(3)	(2)
State tax			
Other items	9	(2)	(2)
Provision for income taxes	$ 101	$ 93	$ 120

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2015 and 2014 are as follows:

	2015	2014
Deferred tax assets:		
Accrued postretirement benefits	$ 18	$ 21
Foreign tax credit	389	376
Operating and capital loss carryovers	296	334
Other credit carryovers	13	12
Accrued liabilities	68	67
Pension liability	27	29
Other	38	49
Total deferred tax assets	849	888
Deferred tax liabilities:		
Property, plant and equipment	112	114
Intangibles and deferred software	131	34
Other	26	41
Total deferred tax liabilities	269	189
Valuation allowance	(603)	(595)
Net deferred taxes	$ (23)	$ 104

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	2015	2014
Prepaid expenses	$ —	$ 34
Other assets	177	203
Deferred taxes	(200)	(133)
Net deferred taxes	$ (23)	$ 104

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2015, before valuation allowance, the Company had unused foreign tax credits of $389 million expiring in 2017 through 2025, and research tax credit of $14 million expiring from 2019 to 2035, which will be available to offset future income tax. Approximately $145 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $151 million expiring between 2016 and 2035.

At December 31, 2015, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.5 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations. It is not practicable to estimate the U.S. and foreign tax which would be

payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company is included in OI Inc.'s consolidated tax returns for U.S. federal and certain state income tax purposes. The consolidated group has net operating losses, capital losses, alternative minimum tax credits, foreign tax credits and research and development credits available to offset future U.S. Federal income tax. Income taxes are allocated to the Company on a basis consistent with separate returns.

The Company has recognized tax benefits as a result of incentives in certain non-U.S. jurisdictions which expire in 2016.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2015, 2014 and 2013:

	2015	2014	2013
Balance at January 1	$ 77	$ 100	$ 97
Additions and reductions for tax positions of prior years	1	(13)	(3)
Additions based on tax positions related to the current year	10	10	9
Reductions due to the lapse of the applicable statute of limitations	(5)	(8)	(2)
Reductions due to settlements	(1)	(1)	
Foreign currency translation	(8)	(11)	(1)
Balance at December 31,	$ 74	$ 77	$ 100
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 67	$ 70	$ 92
Accrued interest and penalties at December 31	$ 25	$ 29	$ 35
Interest and penalties included in tax expense for the years ended December 31	$ (1)	$ (2)	$ 1

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonable possible that the estimated liability could decrease up to $47 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Bolivia, Brazil, China, Canada, Colombia, France, Germany, Indonesia, and Italy. The years under examination range from 2004 through 2013. The Company believes that there are no jurisdictions in which the outcome of unresolved issues or claims is likely to be material to the Company's results of operations, financial position or cash flows. The Company further believes that adequate provisions for all income tax uncertainties have been made. During 2015, the Company concluded income tax audits in several jurisdictions, including Argentina, Germany, Italy, Peru and Poland.

11. External Debt

The following table summarizes the external long-term debt of the Company at December 31, 2015 and 2014:

	2015	2014
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,546	
Term Loan A (€279 million at December 31, 2015)	301	
Term Loan B	563	
Previous Secured Credit Agreement:		
Term Loans:		
Term Loan B (USD tranche)		404
Term Loan C (CAD tranche)		70
Term Loan D (EUR tranche)		103
Senior Notes:		
3.00%, Exchangeable, due 2015		18
7.375%, due 2016		594
6.75%, due 2020 (€500 million)	542	603
4.875%, due 2021 (€330 million)	357	397
5.00%, due 2022	494	493
5.875%, due 2023	680	
5.375%, due 2025	296	295
6.375%, due 2025	293	
Capital Leases	52	51
Other	30	29
Total long-term debt	5,154	3,057
Less amounts due within one year	67	359
Long-term debt	$ 5,087	$ 2,698

On April 22, 2015, certain of the Company's subsidiaries entered into a new Senior Secured Credit Facility (the "Agreement"), which amended and restated the previous credit agreement (the "Previous Agreement"). The proceeds from the Agreement were used to repay all outstanding amounts under the Previous Agreement and the 7.375% senior notes due 2016. The Company recorded $42 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in 2015.

In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 17), the Company entered into Amendment No. 2 ("Amendment No. 2") to the Agreement, which provided for additional incremental availability under the incremental dollar cap in the Agreement of up to $1,250 million. In addition, in connection with the closing of the Vitro Acquisition, on September 1, 2015, the Company entered into the First Incremental Amendment to the Agreement (the "Incremental Amendment") pursuant to which the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility (the "incremental term loan A facility") on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Agreement and (ii) a $575 million term loan B facility (the "incremental term loan B facility") maturing seven years after the closing of the Vitro Acquisition using its incremental capacity under the Agreement.

At December 31, 2015, the Agreement, as amended by Amendment No. 2 and the Incremental Amendment (the "Amended Agreement"), includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,546 million net of debt issuance costs), and a €279 million term loan A facility ($301 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. The Amended Agreement also includes a $575 million term loan B facility ($563 million net of debt issuance costs) with a final maturity date of September 1, 2022. At December 31, 2015, the Company had unused credit of $872 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2015 was 2.37%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial maintenance covenant, a Total Leverage Ratio, that requires the Company as of the last day of a fiscal quarter not to exceed a ratio of 4.0x calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The maximum Total Leverage Ratio is subject to an increase of 0.5x for the four fiscal quarters commencing on and following the consummation of certain qualifying acquisitions as defined in the Amended Agreement. In connection with the Vitro Acquisition on September 1, 2015, the Company elected to increase such maximum Total Leverage Ratio to 4.5x for the four fiscal quarters ending June 30, 2016. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum.

On February 3, 2016, the Company entered into Amendment No. 4 ("Amendment No. 4") to the Amended Agreement, which provided for an increase in the maximum Total Leverage Ratio for purposes of the financial covenant in the Amended Agreement of up to 5.0x for the three fiscal quarters ending March 31, 2016, June 30, 2016 and September 30, 2016, 4.50x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017 and stepping down to 4.0x for the fiscal quarter ending December 31, 2017 and each fiscal quarter ending thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement as amended by Amendment No. 4. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement as amended by Amendment No. 4 and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2015, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement as amended by Amendment No. 4 will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio. The applicable margin for the term loan B facility is 2.75%

for Eurocurrency Rate loans and 1.75% for Base Rate loans. The incremental term loan B facility is subject to a LIBOR floor of 0.75%.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company for the term of the Amended Agreement.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022 (the "Senior Notes due 2022"). The Company also issued senior notes with a face value of $300 million that bear interest at 5.375% and are due January 15, 2025 (together with the Senior Notes due 2022, the "2014 Senior Notes"). The 2014 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2014 Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase in a tender offer $611 million aggregate principal amount of the Company's 3.00% 2015 Exchangeable Senior Notes. The remaining balance of the Exchangeable Senior Notes was repaid in the second quarter of 2015.

The Company has a €185 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2015 and 2014 is as follows:

	2015	2014
Balance (included in short-term loans)	$ 158	$ 122
Weighted average interest rate	1.21 %	1.41 %

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2020 are as follows: 2016, $67 million; 2017, $84 million; 2018, $108 million; 2019, $107 million; and 2020, $2,091 million.

Fair values at December 31, 2015, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 547	$ 116.75	$ 639
4.875%, due 2021 (€330 million)	361	109.19	394
5.00%, due 2022	500	98.25	491
5.875%, due 2023	700	101.00	707
5.375%, due 2025	300	101.50	305
6.375%, due 2025	300	97.50	293

12. Contingencies

Certain litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are nonroutine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based including additional information, negotiations, settlements, and other events. The ultimate legal and financial liability of the Company in respect to this pending litigation cannot reasonably be estimated. However, the Company believes, based on its examination and review of such matters and experience to date, that such ultimate liability will not have a material adverse effect on its results of operations or financial condition.

The Company conducted an internal investigation into conduct in certain of its overseas operations that may have violated the anti-bribery provisions of the United States Foreign Corrupt Practices Act (the "FCPA"), the FCPA's books and records and internal controls provisions, the Company's own internal policies, and various local laws. In October 2012, the Company voluntarily disclosed these matters to the U.S. Department of Justice (the "DOJ") and the Securities and Exchange Commission (the "SEC").

On July 18, 2013, the Company received a letter from the DOJ indicating that it presently did not intend to take any enforcement action and is closing its inquiry into the matter.

As disclosed in previous periods, the Company is presently unable to predict the duration, scope or result of an investigation by the SEC, if any, or whether the SEC will commence any legal action. The SEC has a broad range of civil sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, penalties, and modifications to business practices. The Company could also be subject to investigation and sanctions outside the United States. While the Company is currently unable to quantify the impact of any potential sanctions or remedial measures, it does not expect such actions will have a material adverse effect on the Company's liquidity, results of operations or financial condition.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Loss
Balance on January 1, 2014	$ 229	$ 1	$ (367)	$ (137)
Change before reclassifications	(284)	3	136	(145)
Amounts reclassified from accumulated other comprehensive income		(2)(a)	18 (b)	16
Translation effect			(32)	(32)
Tax effect			(10)	(10)
Other comprehensive income attributable to the Company	(284)	1	112	(171)
Balance on December 31, 2014	(55)	2	(255)	(308)
Change before reclassifications	(513)	(4)	27	(490)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	15 (b)	14
Translation effect			(31)	(31)
Tax effect		(1)	2	1
Other comprehensive income attributable to the Company	(513)	(6)	13	(506)
Balance on December 31, 2015	$ (568)	$ (4)	$ (242)	$ (814)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Other Expense, net

Other expense, net for the years ended December 31, 2015, 2014, and 2013 included the following:

	2015	2014	2013
Restructuring, asset impairment and other charges	$ 75	$ 68	$ 97
Strategic transaction costs	4		
Acquisition-related fair value intangible adjustments	10		
Non-income tax charge		69	
Charge for Argentina impairment			22
Foreign currency exchange loss (gain)	(10)	(2)	9
Other expense (income)	(2)	3	(5)
	$ 77	$ 138	$ 123

In 2014, the Company recorded a charge of $69 million resulting from a non-income tax assessment from a foreign tax authority.

15. Operating Leases

Rent expense attributable to all warehouse, office buildings, and equipment operating leases was $68 million in 2015, $53 million in 2014 and $69 million in 2013. Minimum future rentals under operating leases are as follows: 2016, $77 million; 2017, $74 million; 2018, $68 million; 2019, $60 million; 2020, $61 million; and 2021 and thereafter, $35 million.

16. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2015	2014	2013
Decrease (increase) in current assets:			
Receivables	$ (20)	$ 83	$ 19
Inventories	(13)	(27)	(29)
Prepaid expenses	(8)	29	6
Increase (decrease) in current liabilities:			
Accounts payable and accrued liabilities	139	48	126
Salaries and wages	16	12	(5)
U.S. and foreign income taxes	(13)	13	7
	$ 101	$ 158	$ 124

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2015 and 2014, the amount of receivables sold by the Company was $317 million and $276 million, respectively. Any continuing involvement with the sold receivables is immaterial.

	2015	2014	2013
Interest paid in cash	$ 207	$ 179	$ 185
Income taxes paid in cash (all non-U.S)	101	101	128

Cash interest for the years ended December 31, 2015, 2014 and 2013 includes $32 million, $9 million and $12 million of note repurchase premiums, respectively.

17. Business Combinations

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $258 million of net sales and $46 million of segment operating profit through December 31, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from its recently completed senior notes offering, cash on hand and the incremental term loan facilities (see Note 11).

The total purchase price will be allocated to the tangible and identifiable intangible assets and liabilities based upon their respective fair values. The purchase agreement contains customary provisions for working capital adjustments, which the Company expects to resolve with the seller in the first half of 2016. The purchase price allocation has not been finalized as of December 31, 2015, because the Company has not yet completed its review of the asset and liability values and related amortization and depreciation periods. The Company expects that the purchase price allocation process will be completed no later than the third quarter of 2016. The following table summarizes the preliminary estimates of fair value of the assets and liabilities assumed on September 1, 2015 and subsequent adjustments identified through the ongoing purchase price allocation process and recorded through the measurement period:

	September 1, 2015	Measurement Period Adjustments	December 31, 2015
Cash	$ 17	$ —	$ 17
Other current assets	344		344
Goodwill	1,073	(285)	788
Customer list intangibles	406	229	635
Net property, plant and equipment	597	56	653
Total assets	2,437	—	2,437
Current liabilities	93	10	103
Long-term debt	11		11
Long-term liabilities	36	(10)	26
Net assets acquired	$ 2,297	$ —	$ 2,297

The fair value of the tangible assets was estimated utilizing income and market approaches, considering remaining useful life. The customer list intangible asset includes the Company's established relationships with its customers and the ability of these customers to generate future economic profits for the Company. The value assigned to customer list intangibles is based on the present value of future earnings attributable to the asset group after recognition of required returns to other contributory assets.

Recognized goodwill is attributable to the assembled workforce, expected synergies and other intangible assets that do not qualify for separate recognition. The Vitro Acquisition goodwill is not deductible for tax purposes.

The provisional balance sheet adjustments identified above did not result in any significant adjustments to the previous period's income statement.

18. Pro Forma Information – Vitro Acquisition

Had the Vitro Acquisition, described in Note 17 and the related financing described in Note 11, occurred at the beginning of each respective period, unaudited pro forma consolidated net sales and earnings from continuing operations would have been as follows:

	Year Ending December 31, 2015			
	As Reported	Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 270	$ 75	$ (46)	$ 299

	Year Ending December 31, 2014			
	As Reported	Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,784	$ 858	$ —	$ 7,642
Earnings from continuing operations attributable to the Company	$ 381	$ 70	$ (71)	$ 380

19. Discontinued Operations

On March 10, 2015, a tribunal constituted under the auspices of the International Centre for Settlement of Investment Disputes ("ICSID") awarded a subsidiary of the Company more than $455 million in an international arbitration against Venezuela related to the 2010 expropriation of the Company's majority interest in two plants in that country. On July 10, 2015, ICSID confirmed that it had received from Venezuela a petition to annul the award. The annulment process can take up to several years to complete. The Company is unable at this stage to predict the amount or timing of compensation it will ultimately receive under the award. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants.

The loss from discontinued operations of $4 million, $4 million and $10 million for the years ended December 31, 2015, 2014 and 2013, respectively, relates to ongoing costs for the Venezuelan expropriation.

20. Guarantees of Debt

OI Group and the Company guarantee OI Inc.'s senior debentures on a subordinated basis. The fair value of the OI Inc. debt being guaranteed was $277 at December 31, 2015.

21. Related Party Transactions

Charges for administrative services are allocated to the Company by OI Inc. based on an annual utilization level. Such services include compensation and benefits administration, payroll processing, use of certain general accounting systems, auditing, income tax planning and compliance, and treasury services.

Allocated costs also include charges associated with OI Inc.'s equity compensation plans. A substantial number of the options, restricted share units and performance vested restricted share units granted under these plans have been granted to key employees of another subsidiary of OI Inc., some of whose compensation costs, including stock-based compensation, are included in an allocation of costs to all operating subsidiaries of OI Inc., including the Company.

Management believes that such transactions are on terms no less favorable to the Company than those that could be obtained from unaffiliated third parties.

The following information summarizes the Company's significant related party transactions:

	Year ended December 31,		
	2015	2014	2013
Revenues:			
Sales to affiliated companies	$ —	$ —	$ —
Expenses:			
Administrative services	$ 2	$ 2	$ 2
Corporate management fee	74	75	80
Total expenses	$ 76	$ 77	$ 82

The above expenses are recorded in the results of operations as follows:

	Year ended December 31,		
	2015	2014	2013
Cost of goods sold	$ —	$ —	$ —
Selling, general and administrative expenses	76	77	82
Total expenses	$ 76	$ 77	$ 82

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owner of
Owens-Brockway Glass Container Inc.

We have audited the accompanying consolidated balance sheets of Owens-Brockway Glass Container Inc. (the Company) as of December 31, 2015 and 2014, and the related consolidated statements of results of operations, comprehensive income, shareowners' equity and cash flows for each of the three years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Brockway Glass Container Inc. at December 31, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP
Toledo, Ohio
February 16, 2016

Owens-Brockway Glass Container Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions

Years ended December 31,	2015	2014	2013
Net sales	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold	(5,060)	(5,523)	(5,621)
Gross profit	1,096	1,261	1,346
Selling and administrative expense	(389)	(412)	(429)
Research, development and engineering expense	(64)	(63)	(62)
Equity earnings	60	64	67
Interest expense, net	(232)	(210)	(210)
Other expense, net	(77)	(138)	(123)
Earnings from continuing operations before income taxes	394	502	589
Provision for income taxes	(101)	(93)	(120)
Earnings from continuing operations	293	409	469
Loss from discontinued operations	(4)	(4)	(10)
Net earnings	289	405	459
Net earnings attributable to noncontrolling interests	(23)	(28)	(13)
Net earnings attributable to the Company	$ 266	$ 377	$ 446
Amounts attributable to the Company:			
Earnings from continuing operations	$ 270	$ 381	$ 456
Loss from discontinued operations	(4)	(4)	(10)
Net earnings	$ 266	$ 377	$ 446

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2015	2014	2013
Net earnings	$ 289	$ 405	$ 459
Other comprehensive income (loss):			
Foreign currency translation adjustments	(529)	(305)	(232)
Pension and other postretirement benefit adjustments, net of tax	13	112	35
Change in fair value of derivative instruments, net of tax	(6)	1	2
Other comprehensive income (loss)	(522)	(192)	(195)
Total comprehensive income (loss)	(233)	213	264
Comprehensive income attributable to noncontrolling interests	(7)	(7)	(7)
Comprehensive income (loss) attributable to the Company	$ (240)	$ 206	$ 257

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2015	2014
Assets		
Current assets:		
Cash and cash equivalents	$ 394	$ 483
Trade receivables, net of allowances of $29 million and $34 million at December 31, 2015 and 2014, respectively	562	550
Inventories	1,007	1,035
Prepaid expenses and other current assets	352	249
Total current assets	2,315	2,317
Other assets:		
Equity investments	409	427
Pension assets	32	22
Other assets	527	606
Intangibles	597	
Goodwill	2,489	1,893
Total other assets	4,054	2,948
Property, plant and equipment:		
Land, at cost	248	221
Buildings and equipment, at cost:		
Buildings and building equipment	1,080	1,055
Factory machinery and equipment	4,520	4,296
Transportation, office and miscellaneous equipment	68	85
Construction in progress	236	160
Net property, plant and equipment	6,152	5,817
Less accumulated depreciation	3,221	3,405
Net property, plant and equipment	2,931	2,412
Total assets	$ 9,300	$ 7,677

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2015	2014
Liabilities and Share Owner's Equity		
Current liabilities:		
Accounts payable including amount to related parties of $3 ($14 in 2014)	$ 1,200	$ 1,128
Salaries and wages	139	135
U.S. and foreign income taxes	34	43
Other accrued liabilities	332	322
Short-term loans	160	127
Long-term debt due within one year	67	359
Total current liabilities	1,932	2,114
External long-term debt	5,087	2,698
Deferred taxes	200	133
Pension benefits	224	230
Nonpension postretirement benefits	66	78
Other liabilities	186	207
Share owner's equity:		
Investment by and advances from Parent	2,311	2,408
Accumulated other comprehensive loss	(814)	(308)
Total share owner's equity of the Company	1,497	2,100
Noncontrolling interests	108	117
Total share owner's equity	1,605	2,217
Total liabilities and share owner's equity	$ 9,300	$ 7,677

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container Inc.

CONSOLIDATED SHARE OWNER'S EQUITY

Dollars in millions

	Investment by and Advances from Parent	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Share Owner's Equity
Balance on January 1, 2013	2,142	52	174	2,368
Net intercompany transactions	(283)			(283)
Net earnings	446		13	459
Other comprehensive loss		(189)	(6)	(195)
Contribution from noncontrolling interests			5	5
Distributions to noncontrolling interests			(22)	(22)
Deconsolidation of subsidiary			(17)	(17)
Balance on December 31, 2013	2,305	(137)	147	2,315
Net intercompany transactions	(274)			(274)
Net earnings	377		28	405
Other comprehensive loss		(171)	(21)	(192)
Distributions to noncontrolling interests			(37)	(37)
Balance on December 31, 2014	2,408	(308)	117	2,217
Net intercompany transactions	(345)			(345)
Net earnings	266		23	289
Other comprehensive loss		(506)	(16)	(522)
Distributions to noncontrolling interests			(22)	(22)
Acquisitions of noncontrolling interests	(18)		6	(12)
Balance on December 31, 2015	$ 2,311	$ (814)	$ 108	$ 1,605

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2015	2014	2013
Operating activities:			
Net earnings	$ 289	$ 405	$ 459
Loss from discontinued operations	4	4	10
Non-cash charges (credits):			
Depreciation	319	331	345
Amortization of intangibles and other deferred items	77	75	40
Amortization of finance fees and debt discount	14	20	32
Deferred tax benefit	7	(18)	(3)
Restructuring, asset impairment and related charges	63	76	119
Non-income tax charge		69	
Acquisition-related fair value inventory adjustments	22		
Acquisition-related fair value intangible adjustments	10		
Other	126	(91)	36
Cash paid for restructuring activities	(38)	(58)	(78)
Change in non-current assets and liabilities	(117)	(25)	(134)
Change in components of working capital	101	158	124
Cash provided by continuing operating activities	877	946	950
Cash utilized in discontinued operating activities	(4)	(4)	(10)
Total cash provided by operating activities	873	942	940
Investing activities:			
Additions to property, plant and equipment	(400)	(369)	(360)
Acquisitions, net of cash acquired	(2,351)	(113)	(4)
Net cash proceeds related to sale of assets and other	1	16	10
Net activity for non-controlling partner loans		9	(16)
Deconsolidation of subsidiary			(32)
Net foreign exchange derivative activity	4		
Cash utilized in investing activities	(2,746)	(457)	(402)
Financing activities:			
Additions to long-term debt	4,538	1,226	768
Repayments of long-term debt	(2,317)	(1,100)	(1,040)
Increase (decrease) in short-term loans	51	(139)	8
Net receipts from (distribution to) parent	(346)	(276)	(307)
Payment of finance fees	(90)	(11)	(7)
Contribution from noncontrolling interests			5
Distributions to noncontrolling interests	(22)	(37)	(22)
Cash utilized in financing activities	1,814	(337)	(595)
Effect of exchange rate fluctuations on cash	(30)	(21)	(7)
Increase (decrease) in cash	(89)	127	(64)
Cash at beginning of year	483	356	420
Cash at end of year	$ 394	$ 483	$ 356

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tabular data dollars in millions

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Brockway Glass Container, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Relationship with Owens-Brockway Packaging, Inc., Owens-Illinois Group, Inc. and Owens-Illinois, Inc. The Company is a 100%-owned subsidiary of Owens-Brockway Packaging, Inc. ("OB Packaging"), and an indirect subsidiary of Owens-Illinois Group, Inc. ("OI Group") and Owens-Illinois, Inc. ("OI Inc."). Although OI Inc. does not conduct any operations, it has substantial obligations related to outstanding indebtedness and asbestos-related payments. OI Inc. relies primarily on distributions from its direct and indirect subsidiaries to meet these obligations.

For federal and certain state income tax purposes, the taxable income of the Company is included in the consolidated tax returns of OI Inc. and income taxes are allocated to the Company on a basis consistent with separate returns.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from short-term forward exchange contracts not designated as hedges are classified as a financing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest

rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers", which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company is currently evaluating the effect this standard will have on its consolidated financial statements and related disclosures. The Company has not yet selected a transition method nor determined the effect of the standard on its ongoing financial reporting.

Presentation of Debt Issuance Costs - In April 2015, the FASB issued ASU No. 2015-03, "Simplifying the Presentation of Debt Issuance Costs." This standard amends existing guidance to require the presentation of debt issuance costs in the balance sheet as a deduction from the carrying amount of the related debt liability instead of a deferred charge (asset). In the third quarter 2015, the Company elected to adopt this new guidance.

As a result of the adoption of ASU No. 2015-03 certain prior year amounts have been reclassified for consistency with the current period presentation. These reclassifications had no effect on the reported results of operations for any period. Previously, the Company had classified these debt issuance costs as an asset in "other assets". Accordingly, the Company has revised the classification to report these debt issuance costs under the "long-term debt" caption on the balance sheet. For the period ended December 31, 2014, the total of debt issuance costs that was previously classified as "other assets" was $15 million.

Business Combinations – In September 2015, the FASB issued ASU No. 2015-16, "Simplifying the Accounting for Measurement-Period Adjustments". This standard allows for the acquirer to recognize adjustments to provisional amounts that are identified during the measurement period in the reporting periods in which the adjustment amounts are determined. The Company elected to adopt this new guidance as of the third quarter of 2015.

Deferred Taxes – In November 2015, the FASB issued ASU No. 2015-17, "Balance Sheet Classification of Deferred Taxes". This standard requires that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. The Company elected to adopt this new guidance prospectively in the fourth quarter of 2015. Prior periods were not retrospectively adjusted.

Participation in OI Inc. Stock Option Plans and Other Stock Based Compensation The Company participates in the equity compensation plans of OI Inc. under which employees of the Company may be granted options to purchase common shares of OI Inc., restricted common shares of OI Inc., or restricted share units of OI Inc.

Stock Options

In general, subject to change in control, options become exercisable 25% per year beginning on the first anniversary of grant. No options may be exercised in whole or in part during the first year after the date granted.

In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Restricted Shares and Restricted Share Units

Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units granted after March 21, 2005, is amortized over the vesting periods which range from one to four years.

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of OI Inc.'s common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of OI Inc.'s Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of OI Inc.'s common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

As discussed in Note 21, costs incurred under these plans by OI Inc. related to stock-based compensation awards granted directly to the Company's employees are included in the allocable costs charged to the Company and other operating subsidiaries of OI Inc. on an intercompany basis.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015 (see Note 17), the Company has renamed the former South America segment to the Latin America segment. This change in segment name was made to reflect the addition of the Mexican and Bolivian operations from the Vitro Acquisition into the former South America segment. The acquired Vitro food and beverage glass container distribution business located in the United States is included in the North American operating segment. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported

within Other. These include licensing, equipment manufacturing, global engineering, and certain equity investments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2015	2014	2013
Net sales:			
Europe	$ 2,324	$ 2,794	$ 2,787
North America	2,039	2,003	2,002
Latin America	1,064	1,159	1,186
Asia Pacific	671	793	966
Reportable segment totals	6,098	6,749	6,941
Other	58	35	26
Net sales	$ 6,156	$ 6,784	$ 6,967

	2015	2014	2013
Segment operating profit:			
Europe	$ 209	$ 353	$ 305
North America	265	240	307
Latin America	183	227	204
Asia Pacific	83	88	131
Reportable segment totals	740	908	947
Items excluded from segment operating profit:			
Other	2	(1)	(29)
Restructuring, asset impairment and other charges	(80)	(91)	(119)
Strategic transaction costs	(4)		
Acquisition-related fair value inventory adjustments	(22)		
Acquisition-related fair value intangible adjustments	(10)		
Non-income tax charge		(69)	
Pension Settlement charges		(35)	
Interest expense, net	(232)	(210)	(210)
Earnings (loss) from continuing operations before income taxes	$ 394	$ 502	$ 589

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Other	Consolidated Totals
Total assets:							
2015	$ 2,902	$ 2,492	$ 2,807	$ 917	$ 9,118	$ 182	$ 9,300
2014	3,215	1,963	1,300	1,018	7,496	181	7,677
2013	3,494	1,986	1,467	1,149	8,096	89	8,185
Equity investments:							
2015	$ 78	$ 22	$ —	$ 145	$ 245	$ 164	$ 409
2014	81	24		153	258	169	427
2013	84	25		155	264	51	315
Equity earnings:							
2015	$ 16	$ 19	$ —	$ 7	$ 42	$ 18	$ 60
2014	19	17		4	40	24	64
2013	17	16		10	43	24	67
Capital expenditures:							
2015	$ 164	$ 97	$ 89	$ 50	$ 400	$ —	$ 400
2014	188	89	55	34	366	3	369
2013	130	100	80	36	346	14	360
Depreciation and amortization expense:							
2015	$ 120	$ 128	$ 107	$ 40	$ 395	$ 1	$ 396
2014	140	131	79	53	403	3	406
2013	139	110	72	62	383	2	385

The Company’s net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2015	$ 704	$ 2,227	$ 2,931
2014	678	1,734	2,412
2013	651	1,946	2,597

The Company’s net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2015	$ 1,939	$ 4,217	$ 6,156
2014	1,852	4,932	6,784
2013	1,809	5,158	6,967

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015—10%, 2014—11%, 2013—11%).

3. Inventories

Major classes of inventory are as follows:

	2015	2014
Finished goods	$ 858	$ 884
Raw materials	113	110
Operating supplies	36	41
	$ 1,007	$ 1,035

4. Equity Investments

At December 31, 2015 the Company's ownership percentage in equity associates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50 %	Glass container manufacturer
CO Vidrieria SARL	50 %	Glass container manufacturer
Rocky Mountain Bottle Company	50 %	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25 %	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50 %	Glass container manufacturer
Vetri Speciali SpA	50 %	Specialty glass manufacturer

In 2014, the Company entered into the COV joint venture with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico.

In 2013, changes were made to the VeMe joint venture agreement that resulted in the Company relinquishing control of the joint venture and, therefore, deconsolidating the entity. No gain or loss was recognized related to the deconsolidation as the fair value of the entity was equal to the carrying amount of the entity's assets and liabilities. The fair value, which the Company classified as Level 3 in the fair value hierarchy, was computed using a discounted cash flow analysis based on projected future cash flows of the joint venture.

Summarized information pertaining to the Company's equity associates follows:

	2015	2014	2013
Equity in earnings:			
Non-U.S.	$ 23	$ 23	$ 27
U.S.	37	41	40
Total	$ 60	$ 64	$ 67
Dividends received	$ 53	$ 54	$ 67

Summarized combined financial information for equity associates is as follows (unaudited):

	2015	2014
At end of year:		
Current assets	$ 430	$ 479
Non-current assets	959	718
Total assets	1,389	1,197
Current liabilities	203	217
Other liabilities and deferred items	211	191
Total liabilities and deferred items	414	408
Net assets	$ 975	$ 789

	2015	2014	2013
For the year:			
Net sales	$ 719	$ 752	$ 699
Gross profit	$ 193	$ 198	$ 185
Net earnings	$ 139	$ 150	$ 149

The Company made purchases of approximately $161 million and $188 million from equity affiliates in 2015 and 2014, respectively, and owed approximately $66 million and $79 million to equity affiliates as of December 31, 2015 and 2014, respectively.

There is a difference of approximately $18 million as of December 31, 2015, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2015, 2014 and 2013 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2013	1,006	743	325	5	2,079
Translation effects	38	(9)	(49)		(20)
Balance as of December 31, 2013	1,044	734	276	5	2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisitions		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	$ 840	$ 1,020	$ 624	$ 5	$ 2,489

The acquired goodwill in 2015 primarily relates to the Vitro Acquisition (see Note 17).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2015, 2014 and 2013.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit

with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2015, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 17). The intangibles consist of the following at December 31, 2015:

	As of December 31, 2015			
	Gross Carrying Amount	Accumulated Amortization	Translation Effects	Net Carrying Amount
Definite-lived intangible assets				
Customer list intangibles	$ 635	$ (26)	$ (12)	$ 597

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Amortization expense for intangible assets was $26 million, $0 million and $0 million for the years ended December 31, 2015, 2014, 2013, respectively. Estimated amortization related to intangible assets through 2020 is as follows: 2016, $42 million; 2017, $45 million; 2018, $44 million; 2019, $44 million; and 2020, $42 million. No impairment existed on these assets at December 31, 2015.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets consist of the following at December 31, 2015 and 2014:

	2015	2014
Prepaid expenses	$ 42	$ 52
Value added taxes	195	71
Other	115	126
	$ 352	$ 249

In conjunction with the Vitro Acquisition, part of the total consideration paid by the Company relates to a value added tax receivable of approximately $143 million. This amount is included in "Value added taxes" above and is expected to be refunded to the Company in approximately twelve months.

Other assets (noncurrent) consist of the following at December 31, 2015 and 2014:

	2015	2014
Deferred tax assets	$ 177	$ 203
Deferred returnable packaging costs	110	126
Repair part inventories	118	107
Value added taxes	17	58
Capitalized software	86	101
Deferred finance fees	6	7
Other	13	4
	$ 527	$ 606

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2015 and 2014, the Company had entered into commodity forward contracts covering approximately 7,300,000 MM BTUs and 450,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2015 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized loss of $4 million at December 31, 2015 and an unrecognized loss of less than $1 million at December 31, 2014 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2015 and 2014 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2015, 2014 and 2013 is as follows:

Amount of Gain (Loss) recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of Gain (Loss) reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2015	2014	2013	2015	2014	2013
$ (4)	$ 3	$ 1	$ (1)	$ 2	$ (1)

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2015 and 2014, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $790 million and $524 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2015, 2014 and 2013 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2015	2014	2013
Other expense	$ 10	$ (8)	$ (28)

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year. The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2015 and 2014:

		Fair Value	
	Balance Sheet Location	2015	2014
Asset Derivatives:			
Derivatives not designated as hedging instruments:			
Forward exchange derivative contracts	a	$ 14	$ 10
Total asset derivatives		$ 14	$ 10
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ 3	$ —
Derivatives not designated as hedging instruments:			
Forward exchange derivative contracts	c	2	4
Total liability derivatives		$ 5	$ 4

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

Since 2011, the Company has implemented the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0 million in 2015, $1 million in 2014 and $16 million in 2013 for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The

Company does not expect to execute any further actions under this program and recorded total cumulative charges of $127 million.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $5 million, $73 million and $49 million for the years ended 2015, 2014 and 2013, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company has recorded total cumulative charges of $220 million under this program.

Other Restructuring Actions

The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives. In 2013, there were charges of $16 million for employee costs related to the closure of flat glass operations in Latin America, $13 million for employee costs related to global headcount reduction initiatives, and $3 million for miscellaneous other costs.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2014	$ 30	$ 20	$ 64	$ 114
2014 charges	1	73	2	76
Write-down of assets to net realizable value		(46)		(46)
Net cash paid, principally severance and related benefits	(12)	(20)	(26)	(58)
Pension charges transferred to other accounts		(7)		(7)
Other, including foreign exchange translation	(7)	(8)	(4)	(19)
Balance at December 31, 2014	12	12	36	60
2015 charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)
Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2015, the Company's estimates include approximately $29 million for employee benefits costs, $7 million for environmental remediation costs, and $7 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company participates in OI Inc.'s defined benefit pension plans for a substantial number of employees located in the United States. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. OI Inc.'s policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. Independent actuaries determine pension costs for each subsidiary of OI Inc. included in the plans; however, accumulated benefit obligation information and plan assets pertaining to each subsidiary have not been separately determined. As such, the accumulated benefit obligation and the plan assets related to the pension plans for domestic employees have been retained by another subsidiary of OI Inc. Net expense to results of operations for the Company's allocated portion of the domestic pension costs amounted to $24 million in 2015, $19 million in 2014 and $48 million in 2013.

OI Inc. also sponsors several defined contribution plans for all salaried and hourly U.S. employees of the Company. Participation is voluntary and participants' contributions are based on their compensation. OI Inc. matches contributions of participants, up to various limits, in substantially all plans. OI Inc. charges the Company for its share of the match. The Company's share of the contributions to these plans amounted to $27 million in 2015, $17 million in 2014 and $13 million in 2013.

The Company also has defined benefit pension plans covering a substantial number of employees in several non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the non-U.S. pension plans benefit obligations for the year were as follows:

	2015	2014
Obligations at beginning of year	$ 1,311	$ 1,866
Change in benefit obligations:		
Service cost	15	23
Interest cost	44	69
Actuarial (gain) loss, including the effect of change in discount rates	(9)	131
Curtailment and plan amendment		(567)
Acquisitions	37	
Participant contributions	1	5
Benefit payments	(58)	(91)
Foreign currency translation	(131)	(125)
Net change in benefit obligations	(101)	(555)
Obligations at end of year	$ 1,210	$ 1,311

The changes in the fair value of the non-U.S. pension plans' assets for the year were as follows:

	2015	2014
Fair value at beginning of year	$ 1,094	$ 1,578
Change in fair value:		
Actual gain on plan assets	42	188
Benefit payments	(58)	(91)
Employer contributions	15	28
Participant contributions	1	5
Acquisitions	22	
Settlements		(519)
Foreign currency translation	(104)	(94)
Other		(1)
Net change in fair value of assets	(82)	(484)
Fair value at end of year	$ 1,012	$ 1,094

The funded status of the non-U.S. pension plans at year end was as follows:

	2015	2014
Plan assets at fair value	$ 1,012	$ 1,094
Projected benefit obligations	1,210	1,311
Plan assets less than projected benefit obligations	(198)	(217)
Items not yet recognized in pension expense:		
Actuarial loss	320	347
Prior service credit	(1)	
	319	347
Net amount recognized	$ 121	$ 130

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2015 and 2014 as follows (amounts are pretax):

	2015	2014
Pension assets	$ 32	$ 22
Current pension liability, included with Other accrued liabilities	(6)	(9)
Pension benefits	(224)	(230)
Accumulated other comprehensive loss	319	347
Net amount recognized	$ 121	$ 130

The accumulated benefit obligation for all defined benefit pension plans was $1,146 million and $1,234 million at December 31, 2015 and 2014, respectively.

	2015	2014
Current year actuarial (gain) loss	$ 15	$ (23)
Amortization of actuarial loss	(15)	(20)
Amortization of prior service credit		2
Curtailment and plan amendment		22
Settlement		(64)
	—	(83)
Translation	(31)	(32)
	$ (31)	$ (115)

The components of the non-U.S. pension plans' net pension expense were as follows:

	2015	2014	2013
Service cost	$ 15	$ 23	$ 33
Interest cost	44	69	72
Expected asset return	(67)	(86)	(91)
Amortization:			
Actuarial loss	15	18	28
Prior service credit		—	(1)
Net amortization	15	18	27
Net expense	$ 7	$ 24	$ 41

The Company settled the liability associated with its pension plan in the Netherlands which resulted in a non-cash charge of approximately $35 million in the fourth quarter of 2014. Pension expense excludes $3 million and $6 million of pension settlement costs that were recorded in restructuring expense in 2014 and 2013, respectively. The table above excludes these charges.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2015:

Amortization:	
Actuarial loss	$ 13
Prior service cost	
Net amortization	$ 13

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds Fair Value of Plan Assets		Accumulated Benefit Obligation Exceeds Fair Value of Plan Assets	
	2015	2014	2015	2014
Projected benefit obligations	$ 876	$ 1,049	$ 876	$ 1,049
Accumulated benefit obligation	850	1,023	850	1,023
Fair value of plan assets	645	810	645	810

The weighted average assumptions used to determine benefit obligations were as follows:

	2015	2014
Discount rate	3.82 %	3.58 %
Rate of compensation increase	2.84 %	2.89 %

The weighted average assumptions used to determine net periodic pension costs were as follows:

	2015	2014	2013
Discount rate	3.65 %	4.14 %	3.89 %
Rate of compensation increase	2.89 %	3.31 %	3.08 %
Expected long-term rate of return on assets	7.21 %	7.23 %	6.34 %

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2015, the Company's weighted average expected long-term rate of return on assets was 7.23% for the non-U.S. plans. In developing this assumption, the Company evaluated input from its third party pension plan asset managers, including their review of asset class return expectations and long-term inflation assumptions. The Company also considered its historical 10-year average return (through December 31, 2014), which was in line with the expected long-term rate of return assumption for 2015.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The following table sets forth by level, within the fair value hierarchy, the Company's pension plan assets at fair value as of December 31, 2015 and 2014:

	2015			2014			Target
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3	Allocation
Cash and cash equivalents	$ 30	$ —	$ —	$ 14	$ —	$ —	
Equity securities	278	176		343	200	—	45 - 55 %
Debt securities	329	111		364	119	2	40 - 50 %
Real estate		53	5		30	3	0 - 10 %
Other		24	6		19		0 - 10 %
Total assets at fair value	$ 637	$ 364	$ 11	$ 721	$ 368	$ 5	

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2015	2014
Beginning balance	$ 5	$ 8
Net increase (decrease)	6	(3)
Ending balance	$ 11	$ 5

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2015.

In order to maintain minimum funding requirements, the Company is required to make contributions to its non-U.S. defined benefit pension plans of approximately $22 million in 2016.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2016	$ 59
2017	55
2018	56
2019	58
2020	60
2021 - 2025	331

Postretirement Benefits Other Than Pensions

OI Inc. provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. Independent actuaries determine postretirement benefit costs for each subsidiary of OI Inc.; however, accumulated postretirement benefit obligation information pertaining to each subsidiary has not been separately determined. As such, the accumulated postretirement benefit obligation has been retained by another subsidiary of OI Inc.

The Company’s net periodic postretirement benefit cost, as allocated by OI Inc., for domestic employees was $2 million, $1 million, and $3 million at December 31, 2015, 2014, and 2013, respectively.
The Company also has postretirement benefit plans covering substantially all employees in Canada. The following tables relate to the Company’s postretirement benefit plans in Canada.

The changes in the postretirement benefit obligations for the year were as follows:

	2015	2014
Obligations at beginning of year	$ 81	$ 90
Change in benefit obligations:		
Service cost	1	1
Interest cost	3	4
Actuarial (gain) loss, including the effect of changing discount rates	(1)	(2)
Benefit payments	(3)	(3)
Foreign currency translation	(13)	(7)
Other		(2)
Net change in benefit obligations	(13)	(9)
Obligations at end of year	$ 68	$ 81

The funded status of the postretirement benefit plans at year end was as follows:

	2015	2014
Postretirement benefit obligations	$ (68)	$ (81)
Items not yet recognized in net postretirement benefit cost:		
Actuarial loss	(3)	(3)
Net amount recognized	$ (71)	$ (84)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	2015	2014
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (2)	$ (3)
Nonpension postretirement benefits	(66)	(78)
Accumulated other comprehensive loss	(3)	(3)
Net amount recognized	$ (71)	$ (84)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2015 and 2014 as follows (amounts are pretax):

	2015	2014
Current year actuarial (gain) loss	$ —	$ (1)

The components of the net postretirement benefit cost for the year were as follows:

	2015	2014	2013
Service cost	$ 1	$ 1	$ 1
Interest cost	3	4	4
Net postretirement benefit cost	$ 4	$ 5	$ 5

The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost were as follows:

	2015	2014	2013
Accumulated post retirement benefit obligation	3.80 %	3.75 %	4.47 %
Net postretirement benefit cost	3.75 %	4.47 %	3.89 %

The weighted average assumed health care cost trend rates at December 31 were as follows:

	2015	2014
Health care cost trend rate assumed for next year	5.00 %	5.00 %
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2015	2014

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-Percentage Point	
	Increase	Decrease
Effect on total of service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	11	(9)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2016	$ 3
2017	3
2018	3
2019	3
2020	3
2021 - 2025	16

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in each of the years 2015, 2014 and 2013. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

10. Income Taxes

The provision (benefit) for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2015	2014	2013
U.S.	$ 125	$ 231	$ 340
Non-U.S.	269	271	249
	$ 394	$ 502	$ 589

Discontinued operations	2015	2014	2013
U.S.	$ —	$ —	$ —
Non-U.S.	(4)	(4)	(10)
	$ (4)	$ (4)	$ (10)

The provision (benefit) for income taxes consists of the following:

	2015	2014	2013
Current:			
U.S.	$ 9	$ 8	$ 7
Non-U.S.	85	103	116
	94	111	123
Deferred:			
U.S.	5	—	—
Non-U.S.	2	(18)	(3)
	7	(18)	(3)
Total:			
U.S.	14	8	7
Non-U.S.	87	85	113
Total	$ 101	$ 93	$ 120

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2015	2014	2013
Tax provision on pretax earnings (loss) from continuing operations at statutory U.S. Federal tax rate	$ 138	$ 177	$ 206
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates under U.S. rates	(12)	(22)	(18)
Changes in valuation allowance	21	(24)	(38)
Withholding tax, net	18	18	22
Non-deductible acquisition costs			
U.S. tax on intercompany dividends and interest	16	1	3
U.S. tax consolidation benefit	(70)	(47)	(51)
Tax exempt income	(3)	(5)	(6)
Tax law changes	(3)		6
Tax credit	(13)	(3)	(2)
State tax			
Other items	9	(2)	(2)
Provision for income taxes	$ 101	$ 93	$ 120

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2015 and 2014 are as follows:

	2015	2014
Deferred tax assets:		
Accrued postretirement benefits	$ 18	$ 21
Foreign tax credit	389	376
Operating and capital loss carryovers	296	334
Other credit carryovers	13	12
Accrued liabilities	68	67
Pension liability	27	29
Other	38	49
Total deferred tax assets	849	888
Deferred tax liabilities:		
Property, plant and equipment	112	114
Intangibles and deferred software	131	34
Other	26	41
Total deferred tax liabilities	269	189
Valuation allowance	(603)	(595)
Net deferred taxes	$ (23)	$ 104

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2015 and 2014 as follows:

	2015	2014
Prepaid expenses	$ —	$ 34
Other assets	177	203
Deferred taxes	(200)	(133)
Net deferred taxes	$ (23)	$ 104

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2015, before valuation allowance, the Company had unused foreign tax credits of $389 million expiring in 2017 through 2025, and research tax credit of $14 million expiring from 2019 to 2035, which will be available to offset future income tax. Approximately $145 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $151 million expiring between 2016 and 2035.

At December 31, 2015, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.5 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations. It is not practicable to estimate the U.S. and foreign tax which would be

payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company is included in OI Inc.'s consolidated tax returns for U.S. federal and certain state income tax purposes. The consolidated group has net operating losses, capital losses, alternative minimum tax credits, foreign tax credits and research and development credits available to offset future U.S. Federal income tax. Income taxes are allocated to the Company on a basis consistent with separate returns.

The Company has recognized tax benefits as a result of incentives in certain non-U.S. jurisdictions which expire in 2016.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2015, 2014 and 2013:

	2015	2014	2013
Balance at January 1	$ 77	$ 100	$ 97
Additions and reductions for tax positions of prior years	1	(13)	(3)
Additions based on tax positions related to the current year	10	10	9
Reductions due to the lapse of the applicable statute of limitations	(5)	(8)	(2)
Reductions due to settlements	(1)	(1)	
Foreign currency translation	(8)	(11)	(1)
Balance at December 31,	$ 74	$ 77	$ 100
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 67	$ 70	$ 92
Accrued interest and penalties at December 31	$ 25	$ 29	$ 35
Interest and penalties included in tax expense for the years ended December 31	$ (1)	$ (2)	$ 1

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonable possible that the estimated liability could decrease up to $47 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Bolivia, Brazil, China, Canada, Colombia, France, Germany, Indonesia, and Italy. The years under examination range from 2004 through 2013. The Company believes that there are no jurisdictions in which the outcome of unresolved issues or claims is likely to be material to the Company's results of operations, financial position or cash flows. The Company further believes that adequate provisions for all income tax uncertainties have been made. During 2015, the Company concluded income tax audits in several jurisdictions, including Argentina, Germany, Italy, Peru and Poland.

11. External Debt

The following table summarizes the external long-term debt of the Company at December 31, 2015 and 2014:

	2015	2014
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,546	
Term Loan A (€279 million at December 31, 2015)	301	
Term Loan B	563	
Previous Secured Credit Agreement:		
Term Loans:		
Term Loan B (USD tranche)		404
Term Loan C (CAD tranche)		70
Term Loan D (EUR tranche)		103
Senior Notes:		
3.00%, Exchangeable, due 2015		18
7.375%, due 2016		594
6.75%, due 2020 (€500 million)	542	603
4.875%, due 2021 (€330 million)	357	397
5.00%, due 2022	494	493
5.875%, due 2023	680	
5.375%, due 2025	296	295
6.375%, due 2025	293	
Capital Leases	52	51
Other	30	29
Total long-term debt	5,154	3,057
Less amounts due within one year	67	359
Long-term debt	$ 5,087	$ 2,698

On April 22, 2015, certain of the Company's subsidiaries entered into a new Senior Secured Credit Facility (the "Agreement"), which amended and restated the previous credit agreement (the "Previous Agreement"). The proceeds from the Agreement were used to repay all outstanding amounts under the Previous Agreement and the 7.375% senior notes due 2016. The Company recorded $42 million of additional interest charges for note repurchase premiums and the related write-off of unamortized finance fees in 2015.

In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 17), the Company entered into Amendment No. 2 ("Amendment No. 2") to the Agreement, which provided for additional incremental availability under the incremental dollar cap in the Agreement of up to $1,250 million. In addition, in connection with the closing of the Vitro Acquisition, on September 1, 2015, the Company entered into the First Incremental Amendment to the Agreement (the "Incremental Amendment") pursuant to which the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility (the "incremental term loan A facility") on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Agreement and (ii) a $575 million term loan B facility (the "incremental term loan B facility") maturing seven years after the closing of the Vitro Acquisition using its incremental capacity under the Agreement.

At December 31, 2015, the Agreement, as amended by Amendment No. 2 and the Incremental Amendment (the "Amended Agreement"), includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,546 million net of debt issuance costs), and a €279 million term loan A facility ($301 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. The Amended Agreement also includes a $575 million term loan B facility ($563 million net of debt issuance costs) with a final maturity date of September 1, 2022. At December 31, 2015, the Company had unused credit of $872 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2015 was 2.37%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial maintenance covenant, a Total Leverage Ratio, that requires the Company as of the last day of a fiscal quarter not to exceed a ratio of 4.0x calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The maximum Total Leverage Ratio is subject to an increase of 0.5x for the four fiscal quarters commencing on and following the consummation of certain qualifying acquisitions as defined in the Amended Agreement. In connection with the Vitro Acquisition on September 1, 2015, the Company elected to increase such maximum Total Leverage Ratio to 4.5x for the four fiscal quarters ending June 30, 2016. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum.

On February 3, 2016, the Company entered into Amendment No. 4 ("Amendment No. 4") to the Amended Agreement, which provided for an increase in the maximum Total Leverage Ratio for purposes of the financial covenant in the Amended Agreement of up to 5.0x for the three fiscal quarters ending March 31, 2016, June 30, 2016 and September 30, 2016, 4.50x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017 and stepping down to 4.0x for the fiscal quarter ending December 31, 2017 and each fiscal quarter ending thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement as amended by Amendment No. 4. In such an event, the Company could not request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement as amended by Amendment No. 4 and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2015, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement as amended by Amendment No. 4 will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to

0.30% per annum linked to the Total Leverage Ratio. The applicable margin for the term loan B facility is 2.75% for Eurocurrency Rate loans and 1.75% for Base Rate loans. The incremental term loan B facility is subject to a LIBOR floor of 0.75%.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company for the term of the Amended Agreement.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During December 2014, the Company issued senior notes with a face value of $500 million that bear interest at 5.00% and are due January 15, 2022 (the "Senior Notes due 2022"). The Company also issued senior notes with a face value of $300 million that bear interest at 5.375% and are due January 15, 2025 (together with the Senior Notes due 2022, the "2014 Senior Notes"). The 2014 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2014 Senior Notes, after deducting debt issuance costs, totaled approximately $790 million and were used to purchase in a tender offer $611 million aggregate principal amount of the Company's 3.00% 2015 Exchangeable Senior Notes. The remaining balance of the Exchangeable Senior Notes was repaid in the second quarter of 2015.

The Company has a €185 million European accounts receivable securitization program, which extends through September 2016, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2015 and 2014 is as follows:

	2015	2014
Balance (included in short-term loans)	$ 158	$ 122
Weighted average interest rate	1.21 %	1.41 %

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2020 are as follows: 2016, $67 million; 2017, $84 million; 2018, $108 million; 2019, $107 million; and 2020, $2,091 million.

Fair values at December 31, 2015, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 547	$ 116.75	$ 639
4.875%, due 2021 (€330 million)	361	109.19	394
5.00%, due 2022	500	98.25	491
5.875%, due 2023	700	101.00	707
5.375%, due 2025	300	101.50	305
6.375%, due 2025	300	97.50	293

12. Contingencies

Certain litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are nonroutine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based including additional information, negotiations, settlements, and other events. The ultimate legal and financial liability of the Company in respect to this pending litigation cannot reasonably be estimated. However, the Company believes, based on its examination and review of such matters and experience to date, that such ultimate liability will not have a material adverse effect on its results of operations or financial condition.

The Company conducted an internal investigation into conduct in certain of its overseas operations that may have violated the anti-bribery provisions of the United States Foreign Corrupt Practices Act (the "FCPA"), the FCPA's books and records and internal controls provisions, the Company's own internal policies, and various local laws. In October 2012, the Company voluntarily disclosed these matters to the U.S. Department of Justice (the "DOJ") and the Securities and Exchange Commission (the "SEC").

On July 18, 2013, the Company received a letter from the DOJ indicating that it presently did not intend to take any enforcement action and is closing its inquiry into the matter.

As disclosed in previous periods, the Company is presently unable to predict the duration, scope or result of an investigation by the SEC, if any, or whether the SEC will commence any legal action. The SEC has a broad range of civil sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, penalties, and modifications to business practices. The Company could also be subject to investigation and sanctions outside the United States. While the Company is currently unable to quantify the impact of any potential sanctions or remedial measures, it does not expect such actions will have a material adverse effect on the Company's liquidity, results of operations or financial condition.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Loss
Balance on January 1, 2014	$ 229	$ 1	$ (367)	$ (137)
Change before reclassifications	(284)	3	136	(145)
Amounts reclassified from accumulated other comprehensive income		(2)(a)	18 (b)	16
Translation effect			(32)	(32)
Tax effect			(10)	(10)
Other comprehensive income attributable to the Company	(284)	1	112	(171)
Balance on December 31, 2014	(55)	2	(255)	(308)
Change before reclassifications	(513)	(4)	27	(490)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	15 (b)	14
Translation effect			(31)	(31)
Tax effect		(1)	2	1
Other comprehensive income attributable to the Company	(513)	(6)	13	(506)
Balance on December 31, 2015	$ (568)	$ (4)	$ (242)	$ (814)

(c) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(d) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Other Expense, net

Other expense, net for the years ended December 31, 2015, 2014, and 2013 included the following:

	2015	2014	2013
Restructuring, asset impairment and other charges	$ 75	$ 68	$ 97
Strategic transaction costs	4		
Acquisition-related fair value intangible adjustments	10		
Non-income tax charge		69	
Charge for Argentina impairment			22
Foreign currency exchange loss (gain)	(10)	(2)	9
Other expense (income)	(2)	3	(5)
	$ 77	$ 138	$ 123

In 2014, the Company recorded a charge of $69 million resulting from a non-income tax assessment from a foreign tax authority.

15. Operating Leases

Rent expense attributable to all warehouse, office buildings, and equipment operating leases was $68 million in 2015, $53 million in 2014 and $69 million in 2013. Minimum future rentals under operating leases are as follows: 2016, $77 million; 2017, $74 million; 2018, $68 million; 2019, $60 million; 2020, $61 million; and 2021 and thereafter, $35 million.

16. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2015	2014	2013
Decrease (increase) in current assets:			
Receivables	$ (20)	$ 83	$ 19
Inventories	(13)	(27)	(29)
Prepaid expenses	(8)	29	6
Increase (decrease) in current liabilities:			
Accounts payable and accrued liabilities	139	48	126
Salaries and wages	16	12	(5)
U.S. and foreign income taxes	(13)	13	7
	$ 101	$ 158	$ 124

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2015 and 2014, the amount of receivables sold by the Company was $317 million and $276 million, respectively. Any continuing involvement with the sold receivables is immaterial.

	2015	2014	2013
Interest paid in cash	$ 207	$ 179	$ 185
Income taxes paid in cash (all non-U.S)	101	101	128

Cash interest for the years ended December 31, 2015, 2014 and 2013 includes $32 million, $9 million and $12 million of note repurchase premiums, respectively.

17. Business Combinations

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $258 million of net sales and $46 million of segment operating profit through December 31, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from its recently completed senior notes offering, cash on hand and the incremental term loan facilities (see Note 11).

The total purchase price will be allocated to the tangible and identifiable intangible assets and liabilities based upon their respective fair values. The purchase agreement contains customary provisions for working capital adjustments, which the Company expects to resolve with the seller in the first half of 2016. The purchase price allocation has not been finalized as of December 31, 2015, because the Company has not yet completed its review of the asset and liability values and related amortization and depreciation periods. The Company expects that the purchase price allocation process will be completed no later than the third quarter of 2016. The following table summarizes the preliminary estimates of fair value of the assets and liabilities assumed on September 1, 2015 and subsequent adjustments identified through the ongoing purchase price allocation process and recorded through the measurement period:

	September 1, 2015	Measurement Period Adjustments	December 31, 2015
Cash	$ 17	$ —	$ 17
Other current assets	344		344
Goodwill	1,073	(285)	788
Customer list intangibles	406	229	635
Net property, plant and equipment	597	56	653
Total assets	2,437	—	2,437
Current liabilities	93	10	103
Long-term debt	11		11
Long-term liabilities	36	(10)	26
Net assets acquired	$ 2,297	$ —	$ 2,297

The fair value of the tangible assets was estimated utilizing income and market approaches, considering remaining useful life. The customer list intangible asset includes the Company's established relationships with its customers and the ability of these customers to generate future economic profits for the Company. The value assigned to customer list intangibles is based on the present value of future earnings attributable to the asset group after recognition of required returns to other contributory assets.

Recognized goodwill is attributable to the assembled workforce, expected synergies and other intangible assets that do not qualify for separate recognition. The Vitro Acquisition goodwill is not deductible for tax purposes.

The provisional balance sheet adjustments identified above did not result in any significant adjustments to the previous period's income statement.

18. Pro Forma Information – Vitro Acquisition

Had the Vitro Acquisition, described in Note 17 and the related financing described in Note 11, occurred at the beginning of each respective period, unaudited pro forma consolidated net sales and earnings from continuing operations would have been as follows:

	Year Ending December 31, 2015			
	As Reported	Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 270	$ 75	$ (46)	$ 299

	Year Ending December 31, 2014			
	As Reported	Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,784	$ 858	$ —	$ 7,642
Earnings from continuing operations attributable to the Company	$ 381	$ 70	$ (71)	$ 380

19. Discontinued Operations

On March 10, 2015, a tribunal constituted under the auspices of the International Centre for Settlement of Investment Disputes ("ICSID") awarded a subsidiary of the Company more than $455 million in an international arbitration against Venezuela related to the 2010 expropriation of the Company's majority interest in two plants in that country. On July 10, 2015, ICSID confirmed that it had received from Venezuela a petition to annul the award. The annulment process can take up to several years to complete. The Company is unable at this stage to predict the amount or timing of compensation it will ultimately receive under the award. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants.

The loss from discontinued operations of $4 million, $4 million and $10 million for the years ended December 31, 2015, 2014 and 2013, respectively, relates to ongoing costs for the Venezuelan expropriation.

20. Guarantees of Debt

OI Group and the Company guarantee OI Inc.'s senior debentures on a subordinated basis. The fair value of the OI Inc. debt being guaranteed was $277 at December 31, 2015.

21. Related Party Transactions

Charges for administrative services are allocated to the Company by OI Inc. based on an annual utilization level. Such services include compensation and benefits administration, payroll processing, use of certain general accounting systems, auditing, income tax planning and compliance, and treasury services.

Allocated costs also include charges associated with OI Inc.'s equity compensation plans. A substantial number of the options, restricted share units and performance vested restricted share units granted under these plans have been granted to key employees of another subsidiary of OI Inc., some of whose compensation costs, including stock-based compensation, are included in an allocation of costs to all operating subsidiaries of OI Inc., including the Company.

Management believes that such transactions are on terms no less favorable to the Company than those that could be obtained from unaffiliated third parties.

The following information summarizes the Company's significant related party transactions:

	Year ended December 31,		
	2015	2014	2013
Revenues:			
Sales to affiliated companies	$ —	$ —	$ —
Expenses:			
Administrative services	$ 2	$ 2	$ 2
Corporate management fee	74	75	80
Total expenses	$ 76	$ 77	$ 82

The above expenses are recorded in the results of operations as follows:

	Year ended December 31,		
	2015	2014	2013
Cost of goods sold	$ —	$ —	$ —
Selling, general and administrative expenses	76	77	82
Total expenses	$ 76	$ 77	$ 82

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

OWENS-ILLINOIS, INC.
(Registrant)

By: /s/ JAMES W. BAEHREN
James W. Baehren
Attorney-in-fact

Date: May 13, 2016

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Owens-Illinois, Inc. and in the capacities and on the dates indicated.

Signatures	Title
Andres A. Lopez	President and Chief Executive Officer (Principal Executive Officer)
Jan A. Bertsch	Senior Vice President and Chief Financial Officer (Principal Financial Officer; Principal Accounting Officer)
Albert P.L. Stroucken	Executive Chairman of the Board
Gary F. Colter	Director
Gordon J. Hardie	Director
Peter S. Hellman	Director
Anastasia D. Kelly	Director
John J. McMackin, Jr.	Director
Alan J. Murray	Director
Hari N. Nair	Director
Hugh H. Roberts	Director
Carol A. Williams	Director
Dennis K. Williams	Director
Thomas L. Young	Director

By: /s/ JAMES W. BAEHREN
James W. Baehren
Attorney-in-fact

Date: May 13, 2016

INDEX TO FINANCIAL STATEMENT SCHEDULE

Financial Statement Schedule of Owens-Illinois, Inc. and Subsidiaries:

For the years ended December 31, 2015, 2014, and 2013:

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OWENS-ILLINOIS, INC.

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS (CONSOLIDATED)

Years ended December 31, 2015, 2014, and 2013

(Millions of Dollars)

Reserves deducted from assets in the balance sheets:

Allowances for losses and discounts on receivables

	Balance at beginning of period	Additions: Charged to costs and expenses	Additions: Other	Deductions (Note 1)	Balance at end of period
2015	$ 34	$ 12	$ (5)	$ (12)	$ 29
2014	$ 39	$ 15	$ (12)	$ (8)	$ 34
2013	$ 41	$ 11	$ (5)	$ (8)	$ 39

(1) Deductions from allowances for losses and discounts on receivables represent uncollectible notes and accounts written off.

Valuation allowance on net deferred tax assets

	Balance at beginning of period (restated[1])	Charged to income (restated[1])	Charged to other comprehensive income	Foreign currency translation	Other (restated[1])	Balance at end of period (restated[1])
2015	$ 1,223	$ 1	$ 5	$ (20)	$ (74)	$ 1,135
2014	$ 1,209	$ (2)	$ 55	$ (15)	$ (24)	$ 1,223
2013	$ 1,440	$ (47)	$ (187)	$ (7)	$ 10	$ 1,209

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EXHIBIT 12

OWENS-ILLINOIS, INC.
COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES
(Millions of dollars, except ratios)

	Years ended December 31,		
	2015	**2014**	**2013**
Earnings from continuing operations before income taxes	$ 268	$ 307	$ 468
Less: Equity earnings	(60)	(64)	(67)
Add: Total fixed charges deducted from earnings	264	238	242
Dividends received from equity investees	53	54	67
Earnings available for payment of fixed charges	$ 525	$ 535	$ 710
Fixed charges (including the Company's proportional share of 50% owned associates):			
Interest expense	$ 259	$ 235	$ 239
Portion of operating lease rental deemed to be interest	5	3	3
Total fixed charges deducted from earnings	$ 264	$ 238	$ 242
Ratio of earnings to fixed charges	2.0	2.2	2.9

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EXHIBIT 21

SUBSIDIARIES OF OWENS-ILLINOIS, INC.

Owens-Illinois, Inc. had the following subsidiaries at December 31, 2015 (subsidiaries are indented following their respective parent companies):

Name	State/Country of Incorporation or Organization
Owens-Illinois Group, Inc.	Delaware
OI General Finance Inc.	Delaware
OI General FTS Inc.	Delaware
OI Castalia STS Inc.	Delaware
OI Levis Park STS Inc.	Delaware
Owens-Illinois General Inc.	Delaware
Owens Insurance, Ltd.	Bermuda
Universal Materials, Inc.	Ohio
OI Advisors, Inc.	Delaware
OI Securities, Inc.	Delaware
OI Transfer, Inc.	Delaware
Maumee Air Associates Inc.	Delaware
OI Australia Inc.	Delaware
Continental PET Holdings Pty. Ltd.	Australia
ACI America Holdings Inc.	Delaware
ACI Ventures, Inc.	Delaware
Owens-Brockway Packaging, Inc.	Delaware
Owens-Brockway Glass Container Inc.	Delaware
OI Americas Holdings Inc.	Delaware
O-I Americas LLC	Delaware
O-I Bolivia Holdings Limited	United Kingdom
Vidrio Lux S.A.	Bolivia
O-I Americas C.V.	Netherlands
O-I Mexico Holdings I B.V.	Netherlands
O-I Mexico Holdings II B.V.	Netherlands
Envases de Vidrio de las Americas, S. de R.L. de C.V.	Mexico
Especialidades Operativas de America, S. de R.L. de C.V.	Mexico
Glass International OISPV, S.A.P.I. de C.V.	Mexico
Owens Glass Manufacturing, S. de R.L. de C.V.	Mexico
Vitro Vimosa, S. de R.L. de C.V.	Mexico
Vitro Vigusa, S. de R.L. de C.V.	Mexico
Vitro Virreyes, S. de R.L. de C.V.	Mexico
Vitro Viquesa, S. de R.L. de C.V.	Mexico
Vitro Vitolsa, S. de R.L. de C.V.	Mexico
Vitro America, S. de R.L. de C.V.	Mexico
O-I Packaging Solutions LLC	Delaware
The Andover Group, Inc.	Delaware
OI Andover Group Inc.	Delaware
Brockway Realty Corporation	Pennsylvania
NHW Auburn, LLC	Delaware
OI Auburn Inc.	Delaware
SeaGate, Inc.	Ohio
SeaGate II, Inc.	Ohio
SeaGate III, Inc.	Ohio
OIB Produvisa Inc.	Delaware

Name	State/Country of Incorporation or Organization
OI California Containers Inc.	Delaware
OI Puerto Rico STS Inc.	Delaware
O-I Caribbean Sales & Distibution Inc.	Delaware
O-I Latam HQ, Inc.	Delaware
Bolivian Investments, Inc.	Delaware
Fabrica Boliviana de Vidrios S.A.	Bolivia
OI International Holdings Inc.	Delaware
O-I Glass C.V.	Netherlands
O-I Holding LLC	Delaware
OI Global C.V.	Netherlands
OI Hungary LLC.	Delaware
O-I Manufacturing Hungary Limited	Hungary
O-I Sales & Distribution Hungary Kft.	Hungary
O-I Ecuador LLC	Ohio
Cristaleria del Ecuador, S.A.	Ecuador
OI European Group B.V.	Netherlands
Owens-Illinois Singapore Pte. Ltd.	Singapore
OI China LLC.	Delaware
Wuhan Owens Glass Container Company Limited	China
ACI Beijing Limited	Hong Kong
OI Tianjin Glass Co. Ltd.	China
Owens-Illinois Services H.K. Limited	Hong Kong
ACI Guangdong Limited	Hong Kong
ACI Guangdong Glass Company Limited	China
ACI Shanghai Limited	Hong Kong
ACI Shanghai Glass Company Limited	China
Owens-Illinois (HK) Limited	Hong Kong
O-I (Shanghai) Management Co Ltd.	China
O-I Zhaoqing Glass Co. Ltd.	China
O-I Sihui Glass Recycling Co. Ltd.	China
Owens-Illinois (Australia) Pty Ltd	Australia
ACI Packaging Services Pty Ltd	Australia
ACI Operations Pty. Ltd.	Australia
ACI International Pty Ltd	Australia
ACI Glass Packaging Penrith Pty Ltd	Australia
PT Kangar Consolidated Industries	Indonesia
ACI Operations NZ Limited	New Zealand
O-I Asia-Pacific Holdings	Mauritius
O-I Trading (Shanghai) Company Ltd.	China
O-I Sales and Distribution Netherlands B.V.	Netherlands
O-I Europe Sarl.	Switzerland
O-I Sales and Distribution UK Limited.	United Kingdom
O-I Sales and Distribution Poland Sp Z.o.o.	Poland
O-I Business Service Center Sp. Z.o.o.	Poland
O-I Manufacturing Poland S.A.	Poland
UGG Holdings Ltd.	United Kingdom
O-I Overseas Management Company Ltd.	Delaware
United Glass Group Ltd.	United Kingdom
O-I Manufacturing (UK) Limited	United Kingdom
O-I Sales and Distribution Spain SL	Spain
Vidrieria Rovira, S. L.	Spain
OI Spanish Holdings B.V.	Netherlands

Name	State/Country of Incorporation or Organization
Owens-Illinois Peru S. A.	Peru
O-I Manufacturing Italy S.p.A.	Italy
O-I Manufacturing Czech Republic A.S.	Czech Republic
O-I Sales and Distribution Czech Republic s.r.o.	Czech Republic
San Domenico Vetraria S.r.l.	Italy
O-I Sales and Distribution Italy S.r.l.	Italy
O-I Manufacturing Netherlands B.V.	Netherlands
Veglarec B.V.	Netherlands
O-I Europe SAS	France
O-I Manufacturing France SAS	France
O-I Sales and Distribution France SAS	France
O-I Distribution SO	France
Champagne Emballage	France
O-I Glasspack Beteiligungs & Verwaltungsgesellschaft GmbH.	Germany
OI Glasspack GmbH & Co. KG	Germany
O-I Sales and Distribution Germany GmbH	Germany
OI Canada Holdings B.V.	Netherlands
O-I Canada Corp.	Canada
Manufacturera de Vidrios Planos, C.A.	Venezuela
Owens-Illinois de Venezuela, C. A.	Venezuela
Fabrica de Vidrio Los Andes, C. A.	Venezuela
CMC S.A.	Colombia
O-I Latam Services S.A.S.	Colombia
Cristaleria Peldar, S.A.	Colombia
Cristar S.A.	Colombia
Industria de Materias Primas S.A.	Colombia
Vidrieria Fenicia.	Colombia
Owens-Illinois do Brasil Industria e Comercio S.A.	Brazil
Mineracao Silminas Ltda.	Brazil
Mineracao Descalvado Ltda.	Brazil
OI Finnish Holdings Oy	Finland
O-I Sales and Distribution Finland OY	Finland
O-I Sales and Distribution LT	Lithuania
O-I Production Estonia AS	Estonia
O-I Sales and Distribution Estonia OU.	Estonia
O-I GMEC Lurin srl	Peru
O-I Jaroslaw Machine Service Center.	Poland
Owens-Illinois Argentina S.A.	Argentina

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DIRECTORS AND OFFICERS

Directors

Albert P. L. Stroucken
Executive Chairman

Gary F. Colter
President of CRS Inc.

Gordon J. Hardie
Managing Director, Bunge Food & Ingredients

Peter S. Hellman
President and Chief Financial and Administrative Officer (retired), Nordson Corporation

Anastasia D. Kelly
Partner, DLA Piper

John J. McMackin, Jr.
Principal, Williams & Jensen, PLLC

Alan J. Murray
Managing Board Member for North America for Heidelberg Cement AG

Hari N. Nair
Chief Operating Officer (retired), Tenneco, Inc.

Hugh H. Roberts
President (retired), Kraft Foods International Commercial

Carol A. Williams
Special Advisor to the Chief Executive Officer(retired), Dow Chemical Company

Dennis K. Williams
Chairman of the Board (retired), IDEX Corporation

Thomas L. Young
President, Titus Holding Ltd.

Officers

Andres A. Lopez
President and Chief Executive Officer

Albert P. L. Stroucken
Executive Chairman of the Board

Miguel Alvarez
President, O-I Latin America

James W. Baehren
Senior Vice President and General Counsel

Jan A. Bertsch
Senior Vice President and Chief Financial Officer

Tim Connors
President, O-I Asia Pacific

Sergio B. O. Galindo
President, O-I North America

John A. Haudrich
Senior Vice President and Chief Strategy and Integration Officer

Paul A. Jarrell
Senior Vice President and Chief Administrative Officer

Vitaliano Torno
President, O-I Europe

COMPANY INFORMATION

Exchange Listing
Owens-Illinois common stock (symbol OI) is listed on the New York Stock Exchange.

Transfer Agent for Common Stock
Computershare Trust Company, N.A.
P.O. Box 30170
College Station, TX 77842-3170

Private couriers and registered mail:
211 Quality Circle, Suite 210
College Station, TX 77845

Computershare website:
http://www.computershare.com
Phone: (781) 575-2724
Hearing-impaired: TDD 1-800-952-9245

Any inquiries regarding your account or certificates should be referred to Computershare Trust Company, N.A.

Trustees
U.S. Bank, N.A.
Global Corporate Trust Services
60 Livingston Avenue
EP-MN-WS3C
St. Paul, MN 55107-1419

5.00 % Senior Notes, due 2022
5.375 % Senior Notes, due 2025
5.875% Senior Notes, due 2023
6.375% Senior Notes, due 2025

The Bank of New York
101 Barclay Street
New York, NY 10286

7.80% Senior Debentures, due 2018

Deutsche Bank AG, London Branch
Trust and Agency Services
Winchester House
1 Great Winchester Street
London, England EC2N 2DB

6.75% Senior Notes, due 2020
4.875% Senior Notes, due 2021

Annual Meeting
The annual meeting of share owners will be held at 9:00 a.m. on Thursday, May 12, 2016, in Plaza 2 of the O-I World Headquarters Campus, Perrysburg, OH.

Forms 10-K and 10-Q
The Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, filed with the Securities and Exchange Commission, may be obtained without charge by contacting:

Owens-Illinois, Inc.
Investor Relations
One Michael Owens Way
Perrysburg, OH 43551
Phone: (567) 336-2400

These reports are also available without charge on the Company's website at www.o-i.com

Website
For further information about O-I, visit the Company's website at www.o-i.com

Annual Certifications
The most recent certifications by the Chief Executive Officer and the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Company's Form 10-K. The Company has also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303.12(a) of the New York Stock Exchange Listed Company Manual.

Corporate Headquarters
Owens-Illinois, Inc.
One Michael Owens Way
Perrysburg, OH 43551

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10-K

YEAR ENDING **12.31.2016**

Owens-Illinois, Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended
December 31, 2016

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-9576

OWENS-ILLINOIS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**22-2781933**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
One Michael Owens Way, Perrysburg, Ohio	**43551**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(567) 336-5000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.01 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of " large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ (Do not check if a smaller reporting company) Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value (based on the consolidated tape closing price on June 30, 2016) of the voting and non-voting common equity held by non-affiliates of Owens-Illinois, Inc. was approximately $3,717,494,000. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the Company. Such interpretation is not intended to be, and should not be construed to be, an admission by Owens-Illinois, Inc. or such directors or executive officers of the Company that such directors and executive officers of the Company are "affiliates" of Owens-Illinois, Inc., as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value of Owens-Illinois, Inc. outstanding as of January 31, 2017 was 162,354,026.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Owens-Illinois, Inc. Proxy Statement for The Annual Meeting of Share Owners To Be Held Thursday, May 11, 2017 ("Proxy Statement") are incorporated by reference into Part III hereof.

TABLE OF GUARANTORS

Exact Name of Registrant As Specified In Its Charter	State/Country of Incorporation or Organization	Primary Standard Industrial Classification Code Number	I.R.S. Employee Identification Number
Owens-Illinois Group, Inc.	Delaware	6719	34-1559348
Owens-Brockway Packaging, Inc.	Delaware	6719	34-1559346

The address, including zip code, and telephone number, of each additional registrant's principal executive office is One Michael Owens Way, Perrysburg, Ohio 43551; (567) 336-5000. These companies are listed as guarantors of the debt securities of the registrant. The consolidating condensed financial statements of the Company depicting separately its guarantor and non-guarantor subsidiaries are presented in the notes to the consolidated financial statements. All of the equity securities of each of the guarantors set forth in the table above are owned, either directly or indirectly, by Owens-Illinois, Inc.

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EXHIBITS

PART I

ITEM 1. BUSINESS

General Development of Business

Owens-Illinois, Inc. (the "Company"), through its subsidiaries, is the successor to a business established in 1903. The Company is the largest manufacturer of glass containers in the world with 79 glass manufacturing plants in 23 countries. It competes in the glass container segment of the rigid packaging market and is the leading glass container manufacturer in most of the countries where it has manufacturing facilities.

Company Strategy

The Company's strategy is to provide innovative and competitive packaging solutions for the world's leading food and beverage companies. The Company's goal is to enhance shareholder value and enable the future success of its customers and employees. The Company is employing a strategic plan to realize its goals and vision including:

- **To be the preferred supplier for glass packaging in the global food and beverage industry** by significantly improving the customer experience; aligning its activity with customers' value; improving quality and flexibility; and improving innovation and speed of commercialization; as well as increasing sales, marketing, end-to-end supply chain capabilities and talent;
- **To be the most cost effective global glass packaging producer** by ensuring asset stability and total systems cost management; increasing efficiency, leveraging automation, and improving quality; cultivating game changing concepts that create new competitive advantages; and focusing on continuous improvement; and
- **To expand its business in attractive, growing markets** by growing with strategic customers; expanding into attractive new markets; and evaluating expansion into the value chain.

The Company will achieve these ambitions by working together as One Team, One Enterprise, with One Plan.

Reportable Segments

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015, the Company has renamed the former South America segment to the Latin America segment. Information as to sales, earnings from continuing operations before interest expense (net), and provision for income taxes and excluding amounts related to certain items that management considers not representative of ongoing operations ("segment operating profit"), and total assets by reportable segment is included in Note 2 to the Consolidated Financial Statements.

Products and Services

The Company produces glass containers for alcoholic beverages, including beer, flavored malt beverages, spirits and wine. The Company also produces glass packaging for a variety of food items, soft drinks, teas, juices and pharmaceuticals. The Company manufactures glass containers in a wide range of sizes, shapes and colors and is active in new product development and glass container innovation.

Customers

In most of the countries where the Company competes, it has the leading position in the glass container segment of the rigid packaging market based on sales revenue. The Company's largest customers consist mainly

of the leading global food and beverage manufacturers, including (in alphabetical order) Anheuser-Busch InBev, Carlsberg, Coca-Cola, Constellation, Diageo, Heineken, MillerCoors, Nestle, PepsiCo and Pernod Ricard. No customer represents more than 10% of the Company's consolidated net sales.

The Company sells most of its glass container products directly to customers under annual or multi-year supply agreements. Multi-year contracts typically provide for price adjustments based on cost changes. The Company also sells some of its products through distributors. Many customers provide the Company with regular estimates of their product needs, which enables the Company to schedule glass container production to maintain reasonable levels of inventory. Glass container manufacturing facilities are generally located in close proximity to customers.

Markets and Competitive Conditions

The Company's principal markets for glass container products are in Europe, North America, Latin America and Asia Pacific.

Europe. The Company has a leading share of the glass container segment of the rigid packaging market in the European countries in which it operates, with 35 glass container manufacturing plants located in the Czech Republic, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the United Kingdom. These plants primarily produce glass containers for the beer, wine, champagne, spirits, non-alcoholic beverages and food markets in these countries. The Company also has interests in two joint ventures that manufacture glass containers in Italy. Throughout Europe, the Company competes directly with a variety of glass container manufacturers including Verallia, Ardagh Group, Vetropack, Vidrala and BA Vidro.

North America. The Company has 19 glass container manufacturing plants in the U.S. and Canada, and an interest in a joint venture that manufactures glass containers in the U.S. Also, the Company has a distribution facility used to import glass containers from its business in Mexico. The Company has the leading share of the glass container segment of the U.S. rigid packaging market, based on sales revenue by domestic producers. The principal glass container competitors in the U.S. are the Ardagh Group and Anchor Glass Container. Imports from China, Mexico, Taiwan and other countries also compete in U.S. glass container segments. Additionally, there are several major consumer packaged goods companies that self-manufacture glass containers.

Latin America. The Company has 17 glass manufacturing plants in Latin America, located in Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, and Peru. In 2015, the Company's acquisition of the Vitro Business included six plants. In Latin America, the Company maintains a diversified portfolio serving several markets, including beer, non-alcoholic beverages, spirits, flavored malt beverages, wine, food and pharmaceuticals. The region also has a large infrastructure for returnable/refillable glass containers. The Company competes directly with Verallia in Brazil and Argentina, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region.

Asia Pacific. The Company has eight glass container manufacturing plants in the Asia Pacific region, located in Australia, China, Indonesia and New Zealand. It also has interests in joint venture operations in China, Malaysia and Vietnam. In Asia Pacific, the Company primarily produces glass containers for the beer, wine, food and non-alcoholic beverage markets. The Company competes directly with Orora Limited in Australia, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region. In China, the glass container segments of the packaging market are regional and highly fragmented with a large number of local competitors.

In addition to competing with other large and well-established manufacturers in the glass container segment, the Company competes in all regions with manufacturers of other forms of rigid packaging, principally aluminum cans and plastic containers. Competition is based on quality, price, service, innovation and the marketing attributes of the container. The principal competitors producing metal containers include Ball Corporation, Crown Holdings, Inc., and Silgan Holdings Inc. The principal competitors producing plastic containers include Amcor, Consolidated Container Holdings, LLC, Reynolds Group Holdings Limited, Plastipak Packaging, Inc. and Silgan Holdings Inc. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches, aseptic cartons and bag-in-box containers.

The Company seeks to provide products and services to customers ranging from large multinationals to small local breweries and wineries in a way that creates a competitive advantage for the Company. The Company believes that it is often the glass container partner of choice because of its innovation and branding capabilities, its global footprint and its expertise in manufacturing know-how and process technology.

Seasonality

Sales of many glass container products such as beer, beverages and food are seasonal. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater the last three quarters of the year.

Manufacturing

The Company has 79 glass manufacturing plants. It constantly seeks to improve the productivity of these operations through the systematic upgrading of production capabilities, sharing of best practices among plants and effective training of employees.

The Company also provides engineering support for its glass manufacturing operations through facilities located in the U.S., Australia, France, Poland, Colombia and Peru.

Suppliers and Raw Materials

The primary raw materials used in the Company's glass container operations are sand, soda ash, limestone and recycled glass. Each of these materials, as well as the other raw materials used to manufacture glass containers, has historically been available in adequate supply from multiple sources. One of the sources is a soda ash mining operation in Wyoming in which the Company has a 25% interest.

Energy

The Company's glass container operations require a continuous supply of significant amounts of energy, principally natural gas, fuel oil and electrical power. Adequate supplies of energy are generally available at all of the Company's manufacturing locations. Energy costs typically account for 10-20% of the Company's total manufacturing costs, depending on the cost of energy, the type of energy available, the factory location and the particular energy requirements. The percentage of total cost related to energy can vary significantly because of volatility in market prices, particularly for natural gas and fuel oil in volatile markets such as North America and Europe.

In North America, more than 90% of the sales volume is represented by customer contracts that contain provisions that pass the commodity price of natural gas to the customer, effectively reducing the North America segment's exposure to changing natural gas market prices.

In Europe and Asia Pacific, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts have terms that can range from one to three years. In Latin America, the Company primarily enters into fixed price contracts for its energy requirements in most of the countries in which it operates and the remaining energy requirements are subject to changing natural gas market prices and economic impacts. These fixed price contracts typically have terms of one to five years, and generally include annual price adjustments for inflation and for certain contracts price adjustments for foreign currency variation.

Also, in order to limit the effects of fluctuations in market prices for natural gas, the Company uses commodity forward contracts related to its forecasted requirements. The objective of these forward contracts is to reduce potential volatility in cash flows and expense due to changing market prices. The Company continually evaluates the energy markets with respect to its forecasted energy requirements to optimize its use of commodity forward contracts.

Research, Development and Engineering

Research, development and engineering constitute important parts of the Company's technical activities. Expenditures for these activities were $65 million, $64 million and $63 million for 2016, 2015 and 2014, respectively. The Company primarily focuses on advancements in the areas of product innovation, manufacturing process control, melting technology, automatic inspection, light-weighting and further automation of manufacturing activities. The Company's research and development activities are conducted at its corporate facilities in Perrysburg, Ohio. During 2013, the Company completed the construction of a new research and development facility at this location. This facility has enabled the Company to expand its research and development capabilities.

The Company holds a large number of patents related to a wide variety of products and processes and has a substantial number of patent applications pending. While the aggregate of the Company's patents are of material importance to its businesses, the Company does not consider that any patent or group of patents relating to a particular product or process is of material importance when judged from the standpoint of any individual segment or its businesses as a whole.

The Company has agreements to license its proprietary glass container technology and to provide technical assistance to a limited number of companies around the world. These agreements cover areas related to manufacturing and engineering assistance. The worldwide licensee network provides a stream of revenue to help support the Company's development activities. In 2016, 2015 and 2014, the Company earned $13 million, $12 million and $12 million, respectively, in royalties and net technical assistance revenue.

Sustainability and the Environment

The Company is committed to reducing the impact its products and operations have on the environment. As part of this commitment, the Company has set targets for increasing the use of recycled glass in its manufacturing process, while reducing energy consumption and carbon dioxide equivalent ("CO_2") emissions. Specific actions taken by the Company include working with governments and other organizations to establish and financially support recycling initiatives, partnering with other entities throughout the supply chain to improve the effectiveness of recycling efforts, reducing the weight of glass packaging and investing in research and development to reduce energy consumption in its manufacturing process. The Company invests in technology and training to improve safety, reduce energy use, decrease emissions and increase the amount of cullet, or recycled glass, used in the production process.

The Company's worldwide operations, in addition to other companies within the industry, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. The Company strives to abide by and uphold such laws and regulations.

Glass Recycling and Bottle Deposits

The Company is an important contributor to recycling efforts worldwide and is among the largest users of recycled glass containers. If sufficient high-quality recycled glass were available on a consistent basis, the Company has the technology to make glass containers containing a high proportion of recycled glass. Using recycled glass in the manufacturing process reduces energy costs and impacts the operating life and efficiency of the glass melting furnaces.

In the U.S., Canada, Europe and elsewhere, government authorities have adopted or are considering legal requirements that would mandate certain recycling rates, the use of recycled materials, or limitations on or preferences for certain types of packaging. The Company believes that governments worldwide will continue to develop and enact legal requirements around guiding customer and end-consumer packaging choices.

Sales of beverage containers are affected by governmental regulation of packaging, including deposit laws and extended producer responsibility regulations. As of December 31, 2016, there were a number of U.S. states, Canadian provinces and territories, European countries and Australian states with some form of incentive for consumer returns of glass bottles in their law. The structure and enforcement of such laws and regulations can impact the sales of beverage containers in a given jurisdiction. Such laws and regulations also impact the availability of post-consumer recycled glass for the Company to use in container production.

A number of states and provinces have recently considered or are now considering laws and regulations to encourage curbside, deposit and on-premise glass recycling. Although there is no clear trend in the direction of these state and provincial laws and proposals, the Company believes that states and provinces, as well as municipalities within those jurisdictions, will continue to adopt recycling laws, which will impact supplies of recycled glass. As a large user of recycled glass for making new glass containers, the Company has an interest in laws and regulations impacting supplies of such material in its markets.

Air Emissions

In Europe, the European Union Emissions Trading Scheme ("EUETS") is in effect to facilitate emissions reduction. The Company's manufacturing facilities which operate in EU countries must restrict the volume of their CO_2 emissions to the level of their individually allocated emissions allowances as set by country regulators. If the actual level of emissions for any facility exceeds its allocated allowance, additional allowances can be bought to cover deficits; conversely, if the actual level of emissions for any facility is less than its allocation, the excess allowances can be sold. The EUETS has not had a material effect on the Company's results to date. However, should the regulators significantly restrict the number of emissions allowances available, it could have a material effect in the future.

In North America, the U.S. and Canada are engaged in significant legislative and regulatory activity relating to CO_2 emissions, at the federal, state and provincial levels of government. The U.S. Environmental Protection Agency ("EPA") regulates emissions of hazardous air pollutants under the Clean Air Act, which grants the EPA authority to establish limits for certain air pollutants and to require compliance, levy penalties and bring civil judicial action against violators. The structure and scope of the EPA's CO_2 regulations are currently the subject of litigation and are expected to be the subject of federal legislative activity. The EPA regulations, if preserved as proposed, could have a significant long-term impact on the Company's U.S. operations. The EPA also implemented the Cross-State Air Pollution Rule, which set stringent emissions limits in many states starting in 2012. The state of California in the U.S., and the provinces of Quebec and Ontario in Canada, have adopted cap-and-trade legislation aimed at reducing greenhouse gas emissions.

In Asia Pacific, the *National Greenhouse and Energy Reporting Act 2007* commenced on July 1, 2008 in Australia and established a mandatory reporting system for corporate greenhouse gas emissions and energy production and consumption. In July 2014, the Australian government introduced the Emissions Reduction Fund ("ERF") which comprises an element to credit emissions reductions, a fund to purchase emissions reductions and a safeguard mechanism. The ERF purchases the lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions, while the safeguard mechanism (effective from July 1, 2016) ensures that emissions reductions paid for through the crediting and purchasing elements of the ERF are not offset by significant increases in emissions above business-as-usual levels elsewhere in the economy. An emissions trading scheme has been in effect in New Zealand since 2008.

In Latin America, the Brazilian government passed a law in 2009 requiring companies to reduce the level of greenhouse gas emissions by the year 2025. In the other Latin American countries, national and local governments are considering proposals that would also impose regulations to reduce CO_2 emissions.

The Company is unable to predict what environmental legal requirements may be adopted in the future. However, the Company continually monitors its operations in relation to environmental impacts and invests in environmentally friendly and emissions-reducing projects. As such, the Company has made significant

expenditures for environmental improvements at certain of its facilities over the last several years; however, these expenditures did not have a material adverse effect on the Company's results of operations or cash flows. The Company is unable to predict the impact of future environmental legal requirements on its results of operations or cash flows.

Employees

The Company's worldwide operations employed approximately 27,000 persons as of December 31, 2016. Approximately 74% of North American employees are hourly workers covered by collective bargaining agreements. The principal collective bargaining agreement, which at December 31, 2016, covered approximately 76% of the Company's union-affiliated employees in North America, will expire on March 31, 2019. Approximately 86% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. The Company considers its employee relations to be good and does not anticipate any material work stoppages in the near term.

Available Information

The Company's website is www.o-i.com. The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 can be obtained from this site at no cost. The Company's SEC filings are also available for reading and copying at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company's Corporate Governance Guidelines, Global Code of Business Conduct and Ethics and the charters of the Audit, Compensation, Nominating/Corporate Governance and Risk Oversight Committees are also available on the "Investors" section of the Company's website. Copies of these documents are available in print to share owners upon request, addressed to the Corporate Secretary at the address above.

Executive Officers of the Registrant

In the following table the Company sets forth certain information regarding those persons currently serving as executive officers of Owens-Illinois, Inc. as of February 10, 2017.

Name and Age	Position
Andres A. Lopez (54)	Chief Executive Officer since January 1, 2016; President, Glass Containers and Chief Operating Officer 2015; Vice President and President of O-I Americas 2014-2015; Vice President and President of O-I South America 2009-2014; Vice President of Global Manufacturing and Engineering 2006-2009.
Miguel Alvarez (52)	President, O-I Latin America since 2014; President, O-I Brazil 2010 – 2014. Previously held leadership positions in Chile, Argentina and Ecuador for Belcorp, a leading global beauty products company 2005 – 2010.
James W. Baehren (66)	Senior Vice President of Corporate Development and Special Advisor to the Chief Executive Office since 2017; Senior Vice President and General Counsel 2003-2016; Senior Vice President Strategic Planning 2006-2012; Chief Administrative Officer 2004-2006; Corporate Secretary 1998-2010; Vice President and Director of Finance 2001-2003.
Jan A. Bertsch (60)	Chief Financial Officer and Senior Vice President since November 23, 2015. Previously Executive Vice President and Chief Financial Officer for Sigma-Aldrich, a life science and technology company, 2012 - 2015. Vice President, Controller and Principal Accounting Officer at BorgWarner 2011 – 2012; Vice President and Treasurer, 2009 - 2011.
Tim Connors (42)	President, O-I Asia Pacific since June 1, 2015; General Manager of O-I Australia 2013 – 2015; Vice President of Finance, Asia Pacific 2011 – 2013; Vice President of Strategic Planning and Business Development, North America 2010 – 2011.
Sergio B. O. Galindo (49) . .	President, O-I North America since June 1, 2015; Vice President and President of O-I Asia Pacific 2012 - 2015; General Manager of O-I Colombia 2009- 2012.
John A. Haudrich (49)	Senior Vice President and Chief Strategy and Integration Officer since November 20, 2015; Vice President and Acting Chief Financial Officer 2015; Vice President Finance and Corporate Controller 2011 – 2015; Vice President of Investor Relations 2009 – 2011.
Paul A. Jarrell (54)	Senior Vice President since 2011; Chief Administrative Officer since 2013; Chief Human Resources Officer 2011- 2012. Previously Executive Vice President and Chief Human Resources Officer for DSM, a life sciences and materials company based in The Netherlands, 2009-2011; Vice President and Director of Human Resources for ITT, a fluid technologies and engineered products company, 2006-2009.
Vitaliano Torno (58)	President, O-I Europe since January 1, 2016; Managing Director, O-I Europe 2015; Vice President, European countries 2013 – 2015; Vice President, Marketing and sales, Europe 2010 - 2013.
MaryBeth Wilkinson (44) . .	Senior Vice President and General Counsel since 2017; Corporate Secretary since 2016; Associate General Counsel 2013 – 2016; Assistant General Counsel 2010 – 2012. Previously Partner with a global law firm 2007 – 2010.

Financial Information about Foreign and Domestic Operations

Information as to net sales, segment operating profit, and assets of the Company's reportable segments is included in Note 2 to the Consolidated Financial Statements.

ITEM 1A. RISK FACTORS

Asbestos-Related Liability—The Company has made, and will continue to make, substantial payments to resolve claims of persons alleging exposure to asbestos-containing products and may need to record additional charges in the future for estimated asbestos-related costs. These substantial payments have affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company exited the insulation business in April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory, and in some cases, punitive damages, in various amounts (herein referred to as "asbestos claims").

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2016, before insurance recoveries, for its asbestos-related liability. The Company's ability to estimate its liability has been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

For many years, the Company has conducted a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing its annual results of operations. In May 2016, the Company revised its method for estimating its asbestos-related liabilities in connection with finalizing and reporting its restated results of operations for the three years ended December 31, 2015. Its revised method uses estimated future claims filings provided by a third party consultant and the Company's legal judgment regarding estimated future indemnity and legal costs to develop a reasonable estimate of its total asbestos-related liabilities. The revised methodology has led the Company to conclude that an asbestos liability of $692 million was required as of December 31, 2016.

The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its future annual comprehensive legal reviews, the Company will review its estimate of its total asbestos-related liability, unless significant changes in trends or new developments warrant an earlier review. Such reviews may result in significant adjustments to the liability accrued at the time of the review.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

The ultimate amount of distributions that may be required to fund the Company's asbestos-related payments cannot be estimated with certainty. Asbestos-related payments continue to be substantial and the continued use of significant amounts of cash for asbestos-related costs has affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

Substantial Leverage—The Company's indebtedness could adversely affect the Company's financial health.

The Company has a significant amount of debt. As of December 31, 2016, the Company had approximately $5.3 billion of total debt outstanding, a decrease from $5.6 billion at December 31, 2015.

The Company's indebtedness could result in the following consequences:

- Increased vulnerability to general adverse economic and industry conditions;
- Increased vulnerability to interest rate increases for the portion of the debt under the secured credit agreement;
- Require the Company to dedicate a substantial portion of cash flow from operations to payments on indebtedness, thereby reducing the availability of cash flow to fund working capital, capital expenditures, acquisitions, share repurchases, development efforts and other general corporate purposes;
- Limit flexibility in planning for, or reacting to, changes in the Company's business and the rigid packaging market;
- Place the Company at a competitive disadvantage relative to its competitors that have less debt; and
- Limit, along with the financial and other restrictive covenants in the documents governing indebtedness, among other things, the Company's ability to borrow additional funds.

Ability to Service Debt—To service its indebtedness, the Company will require a significant amount of cash. The Company's ability to generate cash and refinance certain indebtedness depends on many factors beyond its control.

The Company's ability to make payments on and to refinance its indebtedness and to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes depends on its ability to generate cash in the future. The Company has no assurance that it will generate sufficient cash flow from operations, or that future borrowings will be available under the secured credit agreement, in an amount sufficient to enable the Company to pay its indebtedness, or to fund other liquidity needs. If short term interest rates increase, the Company's debt service cost will increase because some of its debt is subject to short term variable interest rates. At December 31, 2016, the Company's debt subject to variable interest rates represented approximately 34% of total debt.

The Company may need to refinance all or a portion of its indebtedness on or before maturity. If the Company is unable to generate sufficient cash flow and is unable to refinance or extend outstanding borrowings on commercially reasonable terms or at all, it may have to take one or more of the following actions:

- Reduce or delay capital expenditures planned for replacements, improvements and expansions;
- Sell assets;
- Restructure debt; and/or
- Obtain additional debt or equity financing.

The Company can provide no assurance that it could affect or implement any of these alternatives on satisfactory terms, if at all.

Debt Restrictions—The Company may not be able to finance future needs or adapt its business plans to changes because of restrictions placed on it by the secured credit agreement and the indentures and instruments governing other indebtedness.

The secured credit agreement, the indentures governing the senior debentures and notes, and certain of the agreements governing other indebtedness contain affirmative and negative covenants that limit the ability of the Company to take certain actions. For example, these indentures restrict, among other things, the ability of the Company and its restricted subsidiaries to borrow money, pay dividends on, or redeem or repurchase its stock, make investments, create liens, enter into certain transactions with affiliates and sell certain assets or merge with or into other companies. These restrictions could adversely affect the Company's ability to operate its businesses and may limit its ability to take advantage of potential business opportunities as they arise.

Failure to comply with these or other covenants and restrictions contained in the secured credit agreement, the indentures or agreements governing other indebtedness could result in a default under those agreements, and the debt under those agreements, together with accrued interest, could then be declared immediately due and payable. If a default occurs under the secured credit agreement, the Company could no longer request borrowings under the secured credit agreement, and the lenders could cause all of the outstanding debt obligations under such secured credit agreement to become due and payable, which would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default under the secured credit agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

Foreign Currency Exchange Rates—The Company is subject to the effects of fluctuations in foreign currency exchange rates, which could adversely impact the Company's financial results.

The Company's reporting currency is the U.S. dollar. A significant portion of the Company's net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the Euro, Brazilian real, Colombian peso, Mexican peso and Australian dollar. In its consolidated financial statements, the Company remeasures transactions denominated in a currency other than the functional currency of the reporting entity (e.g. soda ash purchases) and translates local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

International Operations—The Company is subject to risks associated with operating in foreign countries.

The Company operates manufacturing and other facilities throughout the world. Net sales from non-U.S. operations totaled approximately $4.6 billion, representing approximately 69% of the Company's net sales for the year ended December 31, 2016. As a result of its non-U.S. operations, the Company is subject to risks associated with operating in foreign countries, including:

- Political, social and economic instability;
- War, civil disturbance or acts of terrorism;
- Taking of property by nationalization or expropriation without fair compensation;
- Changes in governmental policies and regulations;
- Devaluations and fluctuations in currency exchange rates;
- Fluctuations in currency exchange rates and other impacts resulting from the United Kingdom's referendum on withdrawal from the European Union;

- Imposition of limitations on conversions of foreign currencies into dollars or remittance of dividends and other payments by foreign subsidiaries;
- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- Hyperinflation in certain foreign countries;
- Impositions or increase of investment and other restrictions or requirements by foreign governments;
- Loss or non-renewal of treaties or other agreements with foreign tax authorities;
- Changes in tax laws, or the interpretation thereof, affecting foreign tax credits or tax deductions relating to our non-U.S. earnings or operations; and
- Complying with the U.S. Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from engaging in bribery or other prohibited payments to foreign officials for the purposes of obtaining or retaining business or gaining an unfair business advantage and requires companies to maintain accurate books and records and internal controls.

The risks associated with operating in foreign countries may have a material adverse effect on operations.

Competition—The Company faces intense competition from other glass container producers, as well as from makers of alternative forms of packaging. Competitive pressures could adversely affect the Company's financial health.

The Company is subject to significant competition from other glass container producers, as well as from makers of alternative forms of packaging, such as aluminum cans and plastic containers. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches and aseptic cartons, in serving the packaging needs of certain end-use markets, including juice customers. The Company competes with each rigid packaging competitor on the basis of price, quality, service and the marketing and functional attributes of the container. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing suppliers and/or using an alternative form of packaging. The adverse effects of consumer purchasing decisions may be more significant in periods of economic downturn and may lead to longer term reductions in consumer spending on glass packaged products.

Pressures from competitors and producers of alternative forms of packaging have resulted in excess capacity in certain countries in the past and have led to capacity adjustments and significant pricing pressures in the rigid packaging market.

Lower Demand Levels—Changes in consumer preferences may have a material adverse effect on the Company's financial results.

Changes in consumer preferences for the food and beverages they consume can reduce demand for the Company's products. Because many of the Company's products are used to package consumer goods, the Company's sales and profitability could be negatively impacted by changes in consumer preferences for those products. Examples of changes in consumer preferences include, but are not limited to, lower sales of major domestic beer brands and shifts from beer to wine or spirits that results in the use of fewer glass containers. In periods of lower demand, the Company's sales and production levels may decrease causing a material adverse effect on the Company's profitability.

High Energy Costs—Higher energy costs worldwide and interrupted power supplies may have a material adverse effect on operations.

Electrical power, natural gas, and fuel oil are vital to the Company's operations as it relies on a continuous energy supply to conduct its business. Depending on the location and mix of energy sources, energy accounts

for 10% to 20% of total production costs. Substantial increases and volatility in energy costs could cause the Company to experience a significant increase in operating costs, which may have a material adverse effect on operations.

Global Economic Environment—The global credit, financial and economic environment could have a material adverse effect on operations and financial condition.

The global credit, financial and economic environment could have a material adverse effect on operations, including the following:

- Downturns in the business or financial condition of any of the Company's customers or suppliers could result in a loss of revenues or a disruption in the supply of raw materials;
- Tightening of credit in financial markets could reduce the Company's ability, as well as the ability of the Company's customers and suppliers, to obtain future financing;
- Volatile market performance could affect the fair value of the Company's pension assets and liabilities, potentially requiring the Company to make significant additional contributions to its pension plans to maintain prescribed funding levels;
- The deterioration of any of the lending parties under the Company's revolving credit facility or the creditworthiness of the counterparties to the Company's derivative transactions could result in such parties' failure to satisfy their obligations under their arrangements with the Company; and
- A significant weakening of the Company's financial position or results of operations could result in noncompliance with the covenants under the Company's indebtedness.

Business Integration Risks—The Company may not be able to effectively integrate additional businesses it has acquired or will acquire in the future.

The Company's ability to realize the anticipated benefits of the Vitro Acquisition will depend, to a large extent, on its ability to integrate the two businesses. The combination of two independent businesses is a complex, costly and time-consuming process and there can be no assurance that the Company will be able to successfully integrate the Vitro Business into its business, or if such integration is successfully accomplished, that such integration will not be more costly or take longer than presently contemplated. Integration of the Vitro Acquisition may include various risks and uncertainties, including the factors discussed in the paragraph below. If the Company cannot successfully integrate and manage the Vitro Business within a reasonable time following the Vitro Acquisition, the Company may not be able to realize the potential and anticipated benefits of the Vitro Acquisition, which could have a material adverse effect on the Company's share price, business, cash flows, results of operations and financial position.

The Company may also consider other strategic transactions, including acquisitions that will complement, strengthen and enhance growth in its worldwide glass operations. The Company evaluates opportunities on a preliminary basis from time to time, but these transactions may not advance beyond the preliminary stages or be completed. Such acquisitions are subject to various risks and uncertainties, including:

- The inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which are located in diverse geographic regions) and achieve expected synergies;
- The potential disruption of existing business and diversion of management's attention from day-to-day operations;
- The inability to maintain uniform standards, controls, procedures and policies;
- The need or obligation to divest portions of the acquired companies;

- The potential impairment of relationships with customers;
- The potential failure to identify material problems and liabilities during due diligence review of acquisition targets;
- The potential failure to obtain sufficient indemnification rights to fully offset possible liabilities associated with acquired businesses; and
- The challenges associated with operating in new geographic regions.

In addition, the Company cannot make assurances that the integration and consolidation of newly acquired businesses will achieve any anticipated cost savings and operating synergies.

Customer Consolidation—The continuing consolidation of the Company's customer base may intensify pricing pressures and have a material adverse effect on operations.

Many of the Company's largest customers have acquired companies with similar or complementary product lines. This consolidation has increased the concentration of the Company's business with its largest customers. In many cases, such consolidation has been accompanied by pressure from customers for lower prices, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Increased pricing pressures from the Company's customers may have a material adverse effect on operations.

Operational Disruptions—Profitability could be affected by unanticipated operational disruptions.

The Company's glass container manufacturing process is asset intensive and includes the use of large furnaces and machines. The Company periodically experiences unanticipated disruptions to its assets and these events can have an adverse effect on its business operations and profitability. The impacts of these operational disruptions include, but are not limited to, higher maintenance, production changeover and shipping costs, higher capital spending, as well as lower absorption of fixed costs during periods of extended downtime. The Company maintains insurance policies in amounts and with coverage and deductibles that are reasonable and in line with industry standards; however, this insurance coverage may not be adequate to protect the Company from all liabilities and expenses that may arise.

Seasonality—Profitability could be affected by varied seasonal demands.

Due principally to the seasonal nature of the consumption of beer and other beverages, for which demand is stronger during the summer months, sales of the Company's products have varied and are expected to vary by quarter. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater in the last three quarters of the year. Unseasonably cool weather during peak demand periods can reduce demand for certain beverages packaged in the Company's containers.

Raw Materials—Profitability could be affected by the availability and cost of raw materials.

The raw materials that the Company uses have historically been available in adequate supply from multiple sources. For certain raw materials, however, there may be temporary shortages due to weather or other factors, including disruptions in supply caused by raw material transportation or production delays. These shortages, as well as material volatility in the cost of any of the principal raw materials that the Company uses, may have a material adverse effect on operations.

In addition, the Company purchases its soda ash raw materials in U.S. dollars in the Latin America and Asia Pacific regions. Given fluctuations in foreign currency exchange rates, this may cause these regions to experience inflationary or deflationary impacts to their raw material costs.

Environmental Risks—The Company is subject to various environmental legal requirements and may be subject to new legal requirements in the future. These requirements may have a material adverse effect on operations.

The Company's operations and properties are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. Such legal requirements frequently change and vary among jurisdictions. The Company's operations and properties must comply with these legal requirements. These requirements may have a material adverse effect on operations.

The Company has incurred, and expects to incur, costs for its operations to comply with environmental legal requirements, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations), and criminal sanctions for violations. These legal requirements may apply to conditions at properties that the Company presently or formerly owned or operated, as well as at other properties for which the Company may be responsible, including those at which wastes attributable to the Company were disposed. A significant order or judgment against the Company, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

A number of governmental authorities have enacted, or are considering enacting, legal requirements that would mandate certain rates of recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials. In addition, some companies with packaging needs have responded to such developments and/or perceived environmental concerns of consumers by using containers made in whole or in part of recycled materials. Such developments may reduce the demand for some of the Company's products and/or increase the Company's costs, which may have a material adverse effect on operations.

Taxes—Potential tax law and U.S. trade policy changes could adversely affect net income and cash flow.

The Company is subject to income tax in the numerous jurisdictions in which it operates. Increases in income tax rates or other tax law changes, as well as ongoing audits by domestic and international authorities, could reduce the Company's net income and cash flow from affected jurisdictions. In particular, potential tax law changes in the U.S. regarding the treatment of the Company's unrepatriated non-U.S. earnings, the deductibility of interest expense or the cost of materials imported from other countries could have a material adverse effect on net income and cash flow. In addition, the Company's products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which it operates. Increases in these indirect taxes could affect the affordability of the Company's products and, therefore, reduce demand.

In addition, existing free trade laws and regulations, such as the North American Free Trade Agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where the Company manufactures products, such as Mexico, could have a material adverse effect on its business and financial results. Also, a government's adoption of "buy national" policies or retaliation by another government against such policies may affect the prices of and demand for the Company's products and could have a negative impact on the Company's results of operations.

Labor Relations—Some of the Company's employees are unionized or represented by workers' councils.

The Company is party to a number of collective bargaining agreements with labor unions which at December 31, 2016, covered approximately 74% of the Company's employees in North America. The principal collective bargaining agreement, which at December 31, 2016 covered approximately 76% of the Company's union-affiliated employees in North America, will expire on March 31, 2019. Approximately 86% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly

workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. Upon the expiration of any collective bargaining agreement, if the Company is unable to negotiate acceptable contracts with labor unions, it could result in strikes by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of the Company's employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure the Company's workforce. In addition, if the Company's employees were to engage in a strike or other work stoppage, the Company could experience a significant disruption of operations and/or higher ongoing labor costs, which may have a material adverse effect on operations.

Key Management and Personnel Retention—Failure to retain key management and personnel could have a material adverse effect on operations.

The Company believes that its future success depends, in part, on its experienced management team and certain key personnel. The loss of certain key management and personnel could limit the Company's ability to implement its business plans and meet its objectives.

Joint Ventures—Failure by joint venture partners to observe their obligations could have a material adverse effect on operations.

A portion of the Company's operations is conducted through joint ventures, including joint ventures in the Europe, North America, Asia Pacific segments and in retained corporate costs and other. If the Company's joint venture partners do not observe their obligations or are unable to commit additional capital to the joint ventures, it is possible that the affected joint venture would not be able to operate in accordance with its business plans, which could have a material adverse effect on the Company's financial condition and results of operations.

Cybersecurity and Information Technology—Security threats and the failure or disruption of the integrity of the Company's information technology, or those of third parties with which it does business, could have a material adverse effect on its business and the results of operations.

The Company relies on information technology to operate its plants, to communicate with its employees, customers and suppliers, to store sensitive business information and intellectual property, and to report financial and operating results. As with all large systems, the Company's information technology systems could fail on their own accord or may be vulnerable to a variety of interruptions due to events, including, but not limited to, natural disasters, terrorist attacks, telecommunications failures, cybersecurity vulnerabilities, threats and more sophisticated and targeted cyber-related attacks. The Company's disaster recovery programs and other preventative measures may be unable to prevent the failure or disruption of the Company's information technology systems, which could result in transaction errors, loss of customers, business disruptions, or loss of or damage to intellectual property and could have a material adverse effect on operations.

As cyberattacks on various organizations have increased, the Company's information technology systems may be subject to increased security threats. The Company's measures in place to prevent and detect global security threats may be unable to prevent certain security breaches. This may result in the loss of customers and business opportunities, regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensatory costs, and additional compliance costs. Failure or disruption of these systems, or the back-up systems, for any reason could disrupt the Company's operations and negatively impact the Company's cash flows or financial condition.

Accounting Estimates—The Company's financial results are based upon estimates and assumptions that may differ from actual results.

In preparing the Company's consolidated financial statements in accordance with U.S. generally accepted accounting principles, several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain information used in the preparation of the Company's financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that accounting for long-lived assets, pension benefit plans, contingencies and litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements. Actual results for all estimates could differ materially from the estimates and assumptions that the Company uses, which could have a material adverse effect on the Company's financial condition and results of operations.

Accounting Standards—The adoption of new accounting standards or interpretations could adversely impact the Company's financial results.

New accounting standards or pronouncements could adversely affect the Company's operating results or cause unanticipated fluctuations in its results in future periods. The accounting rules and regulations that the Company must comply with are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. The Company cannot predict the impact of future changes to accounting principles or its accounting policies on its financial statements going forward.

Goodwill—A significant write down of goodwill would have a material adverse effect on the Company's reported results of operations and net worth.

Goodwill at December 31, 2016 totaled $2.5 billion. The Company evaluates goodwill annually (or more frequently if impairment indicators arise) for impairment using the required business valuation methods. These methods include the use of a weighted average cost of capital to calculate the present value of the expected future cash flows of the Company's reporting units. Future changes in the cost of capital, expected cash flows, or other factors may cause the Company's goodwill to be impaired, resulting in a non-cash charge against results of operations to write down goodwill for the amount of the impairment. If a significant write down is required, the charge would have a material adverse effect on the Company's reported results of operations and net worth.

Pension Funding—An increase in the underfunded status of the Company's pension plans could adversely impact the Company's operations, financial condition and liquidity.

The Company contributed $38 million, $17 million and $28 million to its defined benefit pension plans in 2016, 2015 and 2014, respectively. The amount the Company is required to contribute to these plans is determined by the laws and regulations governing each plan, and is generally related to the funded status of the plans. A deterioration in the value of the plans' investments or a decrease in the discount rate used to calculate plan liabilities generally would increase the underfunded status of the plans. An increase in the underfunded status of the plans could result in an increase in the Company's obligation to make contributions to the plans, thereby reducing the cash available for working capital and other corporate uses, and may have an adverse impact on the Company's operations, financial condition and liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The principal manufacturing facilities and other material important physical properties of the Company at December 31, 2016 are listed below. All properties are glass container plants and are owned in fee, except where otherwise noted.

North American Operations

United States

- Atlanta, GA
- Auburn, NY
- Brockway, PA
- Crenshaw, PA
- Danville, VA
- Kalama, WA
- Lapel, IN
- Los Angeles, CA
- Muskogee, OK
- Portland, OR
- Streator, IL
- Toano, VA
- Tracy, CA
- Waco, TX
- Windsor, CO
- Winston-Salem, NC
- Zanesville, OH

Canada

- Brampton, Ontario
- Montreal, Quebec

Asia Pacific Operations

Australia

- Adelaide
- Brisbane
- Melbourne
- Sydney

China

- Tianjin
- Zhaoqing

Indonesia

- Jakarta

New Zealand

- Auckland

European Operations

Czech Republic

- Dubi
- Nove Sedlo

Estonia

- Jarvakandi

France

- Beziers
- Gironcourt
- Labegude
- Puy-Guillaume
- Reims
- Vayres
- Veauche
- Vergeze
- Wingles

Germany
- Bernsdorf
- Holzminden
- Rinteln

Hungary
- Oroshaza

Italy
- Asti
- Aprilia
- Bari
- Marsala
- Mezzocorona
- Origgio
- Ottaviano
- San Gemini
- San Polo
- Villotta

The Netherlands
- Leerdam
- Maastricht
- Schiedam

Poland
- Jaroslaw
- Poznan

Spain
- Barcelona
- Sevilla

United Kingdom
- Alloa
- Harlow

Latin American Operations

Argentina
- Rosario

Bolivia
- Cochabamba

Brazil
- Recife
- Rio de Janeiro (glass container and tableware)
- Sao Paulo

Colombia
- Buga (tableware)
- Envigado
- Soacha
- Zipaquira

Ecuador
- Guayaquil

Mexico
- Guadalajara
- Los Reyes
- Monterrey
- Queretaro
- Toluca

Peru
- Callao
- Lurin(1)

Other Operations

Engineering Support Centers
- Brockway, Pennsylvania
- Cali, Colombia
- Hawthorn, Australia(1)
- Jaroslaw, Poland
- Lurin, Peru
- Perrysburg, Ohio
- Villeurbanne, France

Shared Service Centers
- Medellin, Colombia
- Monterrey, Mexico
- Perrysburg, Ohio
- Poznan, Poland(1)

Distribution Center
- Laredo, TX(1)

Corporate Facilities

- Hawthorn, Australia(1)
- Miami, Florida(1)
- Perrysburg, Ohio(1)
- Vufflens-la-Ville, Switzerland(1)

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(1) This facility is leased in whole or in part.

The Company believes that its facilities are well maintained and currently adequate for its planned production requirements over the next three to five years.

ITEM 3. LEGAL PROCEEDINGS

For further information on legal proceedings, see Note 12 to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHARE OWNER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

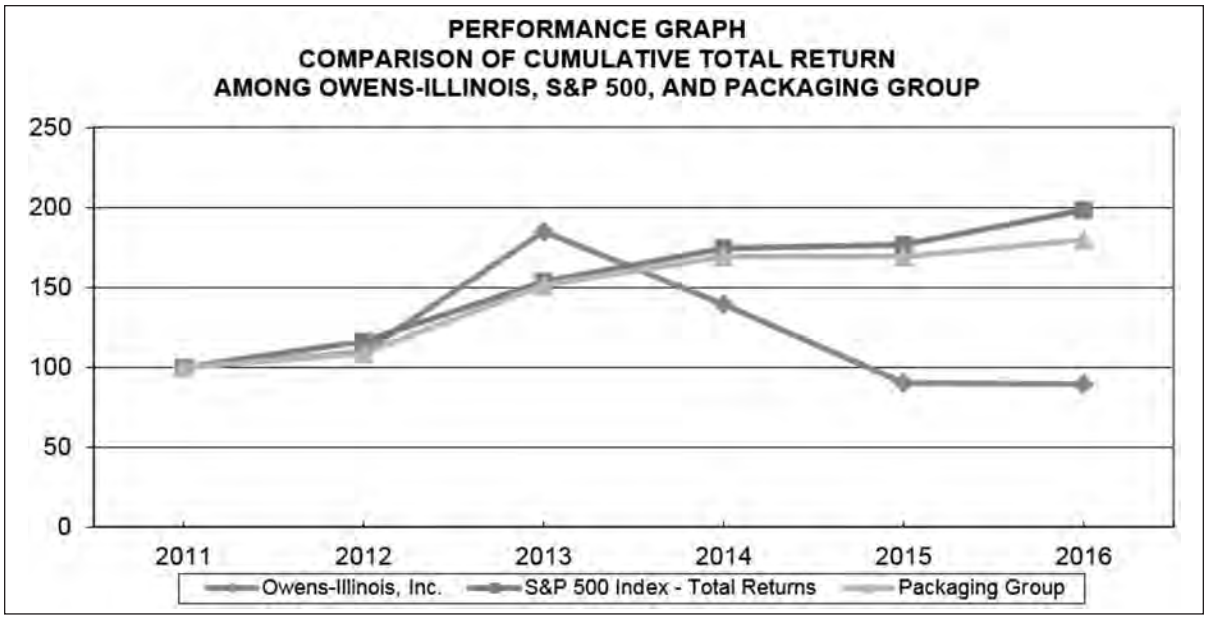
The price range for the Company's common stock on the New York Stock Exchange, as reported by the Financial Industry Regulatory Authority, Inc., was as follows:

	2016		2015	
	High	Low	High	Low
First Quarter	$ 17.06	$ 12.06	$ 26.99	$ 22.85
Second Quarter	20.18	15.46	25.98	22.94
Third Quarter	19.12	16.81	22.93	19.42
Fourth Quarter	19.46	17.00	23.83	16.94

The number of share owners of record on December 31, 2016 was 1,118. Approximately 100% of the outstanding shares were registered in the name of Depository Trust Company, or CEDE, which held such shares on behalf of a number of brokerage firms, banks, and other financial institutions. The shares attributed to these financial institutions, in turn, represented the interests of more than 29,228 unidentified beneficial owners. No dividends have been declared or paid since the Company's initial public offering in December 1991 and the Company does not anticipate paying any dividends in the near future. For restrictions on payment of dividends on the Company's common stock, see Management's Discussion and Analysis of Financial Condition and Results of Operations—Capital Resources and Liquidity—Current and Long-Term Debt and Note 11 to the Consolidated Financial Statements.

Information with respect to securities authorized for issuance under equity compensation plans is included herein under Item 12.

The Company did not purchase any shares of its common stock for the twelve months ended December 31, 2016. The Company has $380 million remaining for repurchases as of December 31, 2016 pursuant to authorization by its Board of Directors in October 2014 to purchase up to $500 million of the Company's common stock until December 31, 2017.



	Years Ending December 31,					
	2011	2012	2013	2014	2015	2016
Owens-Illinois, Inc.	$ 100.00	$ 109.75	$ 184.62	$ 139.27	$ 89.89	$ 89.93
S&P 500	100.00	116.00	153.57	174.60	177.01	198.18
Packaging Group	100.00	109.20	151.22	169.03	169.26	179.43

The above graph compares the performance of the Company's Common Stock with that of a broad market index (the S&P 500 Composite Index) and a packaging group consisting of companies with lines of business or product end uses comparable to those of the Company for which market quotations are available.

The packaging group consists of: AptarGroup, Inc., Ball Corp., Bemis Company, Inc., Crown Holdings, Inc., Owens-Illinois, Inc., Sealed Air Corp., Silgan Holdings Inc., and Sonoco Products Co. The comparison of total return on investment for each period is based on the investment of $100 on December 31, 2011 and the change in market value of the stock, including additional shares assumed purchased through reinvestment of dividends, if any.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below relates to each of the four years in the period ended December 31, 2016, which was derived from the audited consolidated financial statements of the Company. The selected consolidated financial data for the year ended December 31, 2012 has been omitted from this table because it was not practicable for the Company to present this financial information without undue effort. This was due to the Company's May 2016 restatement of its consolidated financial statements for the years ended December 31, 2015, 2014 and 2013 in order to correct an error related to the Company's method for estimating its future asbestos-related liabilities.

	Years ended December 31,			
	2016	2015	2014	2013
	(Dollars in millions)			
Consolidated operating results(a):				
Net sales	$ 6,702	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold	(5,490)	(5,046)	(5,531)	(5,636)
Gross profit	1,212	1,110	1,253	1,331
Selling and administrative, research, development and engineering	(568)	(540)	(586)	(568)
Other expense, net	(16)	(51)	(130)	(66)
Earnings before interest expense and items below	628	519	537	697
Interest expense, net	(272)	(251)	(230)	(229)
Earnings from continuing operations before income taxes	356	268	307	468
Provision for income taxes	(119)	(106)	(92)	(120)
Earnings from continuing operations	237	162	215	348
Loss from discontinued operations	(7)	(4)	(23)	(18)
Net earnings	230	158	192	330
Net (earnings) attributable to noncontrolling interests	(21)	(23)	(28)	(13)
Net earnings attributable to the Company	$ 209	$ 135	$ 164	$ 317

	Years ended December 31,			
	2016	2015	2014	2013
Basic earnings per share of common stock:				
Earnings from continuing operations	$ 1.33	$ 0.86	$ 1.14	$ 2.03
Loss from discontinued operations	(0.04)	(0.03)	(0.14)	(0.11)
Net earnings	$ 1.29	$ 0.83	$ 1.00	$ 1.92
Weighted average shares outstanding (in thousands)	161,857	161,169	164,720	164,425
Diluted earnings per share of common stock:				
Earnings from continuing operations	$ 1.32	$ 0.85	$ 1.13	$ 2.02
Loss from discontinued operations	(0.04)	(0.03)	(0.14)	(0.11)
Net earnings	$ 1.28	$ 0.82	$ 0.99	$ 1.91
Diluted average shares (in thousands)	162,825	162,135	166,047	165,828

	Years ended December 31,			
	2016	2015	2014	2013
	(Dollars in millions)			
Other data:				
The following are included in earnings from continuing operations:				
Depreciation	$ 375	$ 323	$ 335	$ 350
Amortization of intangibles	103	86	83	47
Amortization of deferred finance fees (included in interest expense)	13	15	30	32
Balance sheet data (at end of period):				
Working capital (current assets less current liabilities)	$ 194	$ 212	$ 43	$ 296
Total assets	9,135	9,421	7,843	8,393
Total debt	5,328	5,573	3,445	3,541
Total share owners' equity	$ 363	$ 279	$ 771	1,010

(a) Note that the items below relate to items management considers not representative of ongoing operations.

	Years ended December 31,			
	2016	2015	2014	2013
	(Dollars in millions)			
Cost of goods sold				
Pension settlement charges	$ 98	$ —	$ 50	$ —
Acquisition-related fair value inventory adjustments		22		
Restructuring, asset impairment and related charges			8	
Selling and administrative, research, development and engineering				
Pension settlement charges			15	
Other expense, net				
Restructuring, asset impairment and other charges	129	75	78	119
Gain related to cash received from the Chinese government as compensation for land in China that the Company was required to return to the government	(71)			
Charge for asbestos-related costs		16	46	12
Strategic transaction costs		23		
Non-income tax charge			69	
Acquisition-related fair value intangible adjustments		10		
Equity earnings related charges		5	5	
Interest expense, net				
Note repurchase premiums and additional interest charges for the write-off of unamortized deferred financing fees related to the early extinguishment of debt	9	42	20	11
Provision for income taxes				
Net tax (benefit) expense for income tax on items above	1	(15)	(34	(14)
Tax expense (benefit) recorded for certain tax adjustments	(8)	8	(8)	
Net earnings attributable to noncontrolling interest				
Net impact of noncontrolling interests on items above	2			(13)
	$ 160	$ 186	$ 249	$ 115

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The segment data presented below is prepared in accordance with general accounting principles for segment reporting. The line titled "reportable segment totals", however, is a non-GAAP measure when presented outside of the financial statement footnotes. Management has included reportable segment totals below to facilitate the discussion and analysis of financial condition and results of operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources.

Financial information regarding the Company's reportable segments is as follows (dollars in millions):

	2016	2015	2014
Net sales:			
Europe	$ 2,300	$ 2,324	$ 2,794
North America	2,220	2,039	2,003
Latin America	1,432	1,064	1,159
Asia Pacific	684	671	793
Reportable segment totals	6,636	6,098	6,749
Other	66	58	35
Net sales	$ 6,702	$ 6,156	$ 6,784

	2016	2015	2014
Segment operating profit:			
Europe	$ 237	$ 209	$ 353
North America	299	265	240
Latin America	269	183	227
Asia Pacific	77	83	88
Reportable segment totals	882	740	908
Items excluded from segment operating profit:			
Retained corporate costs and other	(98)	(70)	(100)
Restructuring, asset impairment and other related charges	(129)	(80)	(91)
Pension settlement charges	(98)		(65)
Charge for asbestos-related costs		(16)	(46)
Gain on China land sale	71		
Strategic transaction costs		(23)	
Acquisition-related fair value inventory adjustments		(22)	
Acquisition-related fair value intangible adjustments		(10)	
Non-income tax charge			(69)
Interest expense, net	(272)	(251)	(230)
Earnings from continuing operations before income taxes	356	268	307
Provision for income taxes	(119)	(106)	(92)
Earnings from continuing operations	237	162	215
Loss from discontinued operations	(7)	(4)	(23)
Net earnings	230	158	192
Net earnings attributable to noncontrolling interests	(21)	(23)	(28)
Net earnings attributable to the Company	$ 209	$ 135	$ 164
Net earnings from continuing operations attributable to the Company	$ 216	$ 139	$ 187

Note: all amounts excluded from reportable segment totals are discussed in the following applicable sections.

Executive Overview—Comparison of 2016 with 2015

2016 Highlights

- The September 1, 2015 Vitro Acquisition increased net sales by $608 million and segment operating profit by $122 million in 2016 compared to 2015
- Net sales in 2016 were $6.7 billion, up 9% from the prior year, primarily due to incremental net sales from the Vitro Acquisition. Excluding the acquisition, shipments were comparable in both periods
- Driven by the Vitro Acquisition and progress on strategic initiatives, segment operating profit was higher in all regions, except for Asia Pacific, in 2016 compared to the prior year
- Issued €500 million of senior notes due 2024 and repaid higher-cost floating-rate debt

Net sales increased by $546 million compared to the prior year primarily due to approximately $608 million of incremental net sales from the Vitro Acquisition and slightly higher pricing, partially offset by the unfavorable effect of changes in foreign currency exchange rates and an unfavorable sales mix.

Segment operating profit for reportable segments increased by $142 million compared to the prior year. The increase was largely attributable to approximately $122 million of incremental segment operating profit from the acquired Vitro Business. Higher selling prices also increased segment operating profit. Partially offsetting this was the unfavorable effect of changes in foreign currency exchange rates and higher operating costs due to cost inflation.

Net interest expense in 2016 increased $21 million compared to 2015. Net interest expense included $9 million and $42 million in 2016 and 2015, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense increased $54 million in the current year primarily due to higher debt levels associated with the Vitro Acquisition.

For 2016, the Company recorded earnings from continuing operations attributable to the Company of $216 million, or $1.32 per share (diluted), compared with earnings of $139 million, or $0.85 per share (diluted), for 2015. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $160 million, or $0.99 per share, in 2016 and $186 million, or $1.15 per share, in 2015.

Results of Operations—Comparison of 2016 with 2015

Net Sales

The Company's net sales in 2016 were $6,702 million compared with $6,156 million in 2015, an increase of $546 million, or 9%. Driven by incremental shipments related to the Vitro Acquisition, total glass container shipments, in tonnes, were up approximately 9% in 2016 compared to 2015. The Vitro Acquisition resulted in approximately $608 million of additional sales. Excluding the impact of the Vitro Acquisition, shipments in 2016 were comparable to 2015. On a global basis, sales volumes of beer, wine, spirits, food and non-alcoholic beverages all grew year-on-year. However, an unfavorable sales mix resulted in $41 million of lower net sales in 2016. Net sales also benefited from $79 million in higher selling prices in 2016. Unfavorable foreign currency exchange rates, primarily due to a weaker Brazilian real, Mexican peso, Colombian peso, Canadian dollar and British pound in relation to the U.S. dollar, impacted sales by $108 million in 2016 compared to 2015.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2015		$ 6,098
Price	$ 79	
Sales volume (excluding acquisitions)	(41)	
Effects of changing foreign currency rates	(108)	
Vitro Acquisition	608	
Total effect on net sales		538
Net sales— 2016		$ 6,636

Europe: Net sales in Europe in 2016 were $2,300 million compared with $2,324 million in 2015, a decrease of $24 million, or 1%. The primary reason for the decline in net sales in 2016 was a $28 million impact due to foreign currency exchange rates, as the British pound weakened in relation to the U.S. dollar. Glass container shipments in 2016, primarily to beer and wine customers, increased approximately 2% compared to the prior year and this increased net sales by $30 million. Selling prices decreased in Europe due to competitive pressures and resulted in a $26 million decrease in net sales in 2016. This trend in lower prices is expected to continue into the first quarter of 2017.

North America: Net sales in North America in 2016 were $2,220 million compared with $2,039 million in 2015, an increase of $181 million, or 9%. Net sales from the acquired Vitro food and beverage business in the United States increased the region's net sales by $196 million in 2016. Total glass container shipments were up nearly 7% in 2016 compared to 2015, primarily due to the acquired business and higher shipments in all major end uses except beer, which was on par with prior year. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were up nearly 1% in 2016, however, an unfavorable sales mix resulted in $36 million of lower sales. This impact to sales mix was due to several customers converting a portion of their glass shipments from carton packaging to bulk shipments. Higher selling prices as a result of contractual pass throughs increased net sales by $25 million in 2016. Unfavorable foreign currency exchange rate changes decreased net sales by $4 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2016 were $1,432 million compared with $1,064 million in 2015, an increase of $368 million, or 35%. Net sales from the acquired Vitro food and beverage business in Mexico and Bolivia increased the region's net sales by approximately $412 million in 2016. Total glass container shipments were up approximately 41% in 2016. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were down approximately 3% in 2016. This decline impacted net sales by approximately $40 million and was primarily due to a general economic slowdown in Brazil and Ecuador, which is expected to continue into 2017, partially offset by growth in Colombia and Peru. The unfavorable effects of foreign currency exchange rate changes decreased net sales $75 million in 2016 compared to 2015, principally due to a decline in the Brazilian real, Colombian peso, and the Mexican peso in relation to the U.S. dollar. Improved pricing in the current year benefited net sales by $71 million.

Asia Pacific: Net sales in Asia Pacific in 2016 were $684 million compared with $671 million for 2015, an increase of $13 million, or 2%. Glass container shipments were down approximately 3% compared to the prior year, however, a slightly more favorable sales mix increased net sales by $5 million in 2016. Sales volumes in mature markets in the region were higher than prior year, but production volumes in those countries were lower due to planned engineering activity. These lower production volumes in the mature markets were supported by importing from emerging markets in the region, which in turn, led to lower domestic sales in those markets. Higher prices increased net sales by $9 million in the current year. The unfavorable effects of foreign currency exchange rate changes decreased net sales $1 million in 2016 compared to 2015.

Earnings from Continuing Operations before Income Taxes and Segment Operating Profit

Earnings from continuing operations before income taxes were $356 million in 2016 compared to $268 million in 2015, an increase of $88 million, or 33%. This increase was primarily due to higher segment operating profit, partially offset by higher retained corporate costs and higher net interest expense.

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2016 was $882 million compared to $740 million in 2015, an increase of $142 million, or 19%. The increase was largely attributable to approximately $122 million of segment operating profit from the acquired Vitro Business. Higher selling prices also increased segment operating profit by $79 million. Partially offsetting this was the unfavorable effect of changes in foreign currency exchange rates ($26 million) and higher operating costs ($25 million), primarily due to inflation.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2015		$ 740
Price	$ 79	
Sales volume (excluding acquisitions)	(8)	
Operating costs	(25)	
Effects of changing foreign currency rates	(26)	
Vitro Acquisition	122	
Total net effect on segment operating profit		142
Segment operating profit - 2016		$ 882

Europe: Segment operating profit in Europe in 2016 was $237 million compared with $209 million in 2015, an increase of $28 million, or 13%. The increase in sales volume discussed above improved segment operating profit by $7 million. Segment operating profit also benefited from $51 million in lower operating costs in 2016 than in the prior year due to energy deflation and improved operational performance. In 2015, production volumes were lower due to asset optimization projects that have now been completed. In addition, the region received an energy credit of approximately $10 million from a local government entity in 2016 that had been delayed for legislative reasons in 2015. The unfavorable effects of foreign currency exchange rates, especially the British pound, decreased segment operating profit by $14 million in 2016 compared to the prior year. Lower selling prices also decreased segment operating profit by $26 million.

North America: Segment operating profit in North America in 2016 was $299 million compared with $265 million in 2015, an increase of $34 million, or 13%. Segment operating profit from the acquired Vitro food and beverage glass container distribution business in the region contributed $28 million of incremental profit in 2016. Higher selling prices as a result of contractual pass throughs increased segment operating profit by $25 million in 2016 compared to 2015. Higher production volumes and improved operating efficiencies were more than offset by cost inflation. Together, this contributed to a $13 million reduction to segment operating profit in 2016. The unfavorable sales mix discussed above reduced segment operating profit by $5 million. Also, the unfavorable effects of the weakening of the Canadian dollar in relation to the U.S. dollar decreased segment operating profit by $1 million.

Latin America: Segment operating profit in Latin America in 2016 was $269 million compared with $183 million in 2015, an increase of $86 million, or 47%. Segment operating profit from the acquired Vitro food and beverage business contributed approximately $94 million of incremental profit to the region in 2016. Excluding the impact of the Vitro Acquisition, the decline in sales volume discussed above reduced segment operating profit by $13 million. The unfavorable effects of foreign currency rate changes, especially the Brazilian real, Colombian peso and Mexican peso, decreased segment operating profit by $14 million in the current year. Despite management interventions to contain costs and improve asset optimization, segment operating profit was also unfavorably impacted by $57 million of higher operating costs, primarily due to energy and soda ash inflation in the region. Partially offsetting these declines were higher selling prices that increased segment operating profit by $71 million in 2016. In addition, approximately $5 million of gains related to non-strategic asset sales benefited 2016.

Asia Pacific: Segment operating profit in Asia Pacific in 2016 was $77 million compared with $83 million in 2015, a decrease of $6 million, or 7%. Cost inflation, higher production downtime due to furnace rebuild activity and higher costs for intra-regional shipments drove operating costs $21 million higher in 2016 compared to the prior year. The favorable effects of foreign currency exchange rates increased segment operating profit by $3 million in 2016. The more favorable sales mix discussed above improved segment operating profit by $3 million. Higher selling prices also increased segment operating profit by $9 million in the current year.

Interest Expense, net

Net interest expense in 2016 was $272 million compared with $251 million in 2015. Net interest expense included $9 million and $42 million in 2016 and 2015, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense increased $54 million in the current year primarily due to higher debt levels associated with the Vitro Acquisition.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2016 was 33.4%, compared with 39.6% for 2015. The Company's effective tax rate for 2016 was lower than 2015 due to the impact of significant costs related to refinancing, restructuring and acquisition-related costs in 2015 within jurisdictions that generated little or no tax benefit.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2016 was approximately 24%, compared with approximately 25% for 2015.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2016 was $21 million compared to $23 million for 2015. The decrease in 2016 was largely attributable to the unfavorable effect of changes in foreign currency exchange rates.

Earnings from Continuing Operations Attributable to the Company

For 2016, the Company recorded earnings from continuing operations attributable to the Company of $216 million, or $1.32 per share (diluted), compared with earnings of $139 million, or $0.85 per share (diluted), for 2015. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2016 and 2015 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2016**	**2015**
Restructuring, asset impairment and other charges	$ (123)	$ (73)
Pension settlement charges	(98)	
Note repurchase premiums and write-off of finance fees	(9)	(42)
Gain on China land sale	62	
Tax benefit (charge) for certain tax adjustments	8	(8)
Strategic transaction costs		(22)
Charge for asbestos-related costs		(16)
Acquisition-related fair value inventory adjustments		(16)
Acquisition-related fair value intangible adjustments		(9)
Total	$ (160)	$ (186)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2016 were reduced due to foreign currency effects compared to 2015.

This trend has continued into 2017 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Executive Overview—Comparison of 2015 with 2014

2015 Highlights

- The unfavorable effect of foreign currency exchange rates reduced net sales by 13% and segment operating profit by 16% in 2015 compared to the prior year
- Acquired the food and beverage glass container business of Vitro, S.A.B. de C.V. for $2.297 billion
- Entered into a new senior secured credit facility that matures in April 2020. To finance the Vitro Acquisition, this facility was then amended to borrow an incremental $1.25 billion. The Company also issued $1 billion of senior notes due 2023 and 2025.
- Repaid the senior notes due 2016
- Repurchased $100 million of shares of common stock

Net sales decreased by $628 million compared to the prior year primarily due to the unfavorable effect of changes in foreign currency exchange rates. Net sales for 2015 included approximately $258 million from the acquired Vitro Business.

Segment operating profit for reportable segments decreased by $168 million compared to the prior year. The decrease was largely attributable to the unfavorable effect of changes in foreign currency exchange rates and higher operating costs due to cost inflation and lower operational performance in Europe. Segment operating profit for 2015 included approximately $46 million from the acquired Vitro Business.

Net interest expense in 2015 increased $21 million compared to 2014. The increase was due to higher note repurchase premiums and the write-off of finance fees related to debt that was repaid during 2015 prior to its maturity. Exclusive of these items, net interest expense decreased $1 million in the current year primarily due to debt management activities and the weaker Euro exchange rate in relation to the U.S. dollar, partially offset by an increase in net interest expense as a result of higher debt due to the Vitro Acquisition.

For 2015, the Company recorded earnings from continuing operations attributable to the Company of $139 million, or $0.85 per share (diluted), compared with earnings of $187 million, or $1.13 per share (diluted), for 2014. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $186 million, or $1.15 per share, in 2015 and $249 million, or $1.50 per share, in 2014.

Results of Operations—Comparison of 2015 with 2014

Net Sales

The Company's net sales in 2015 were $6,156 million compared with $6,784 million in 2014, a decrease of $628 million. Unfavorable foreign currency exchange rates, primarily due to a weaker Brazilian real, Colombian peso, Euro, Canadian dollar and Australian dollar in relation to the U.S. dollar, impacted sales by

$881 million in 2015 compared to 2014. Driven by incremental shipments related to the Vitro Acquisition, total glass container shipments, in tonnes, were up approximately 3% in 2015 compared to 2014. The Vitro Acquisition resulted in approximately $258 million of additional sales. Excluding the impact of the Vitro Acquisition, shipments in 2015 were comparable to 2014. On a global basis, sales volumes of wine, spirits, food and non-alcoholic beverages all grew year-on-year. While sales volumes in the beer category declined by approximately 1%, driven by a decline in mainstream beer, shipments into craft and premium beer customers continued to expand. However, an unfavorable sales mix resulted in $47 million of lower net sales in 2015. Net sales also benefited from slightly higher selling prices in 2015.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2014		$ 6,749
Price	$ 19	
Sales volume (excluding acquisitions)	(47)	
Effects of changing foreign currency rates	(881)	
Vitro Acquisition	258	
Total effect on net sales		(651)
Net sales— 2015		$ 6,098

Europe: Net sales in Europe in 2015 were $2,324 million compared with $2,794 million in 2014, a decrease of $470 million, or 17%. The primary reason for the decline in net sales in the region in 2015 was a $445 million impact due to foreign currency exchange rates, as the Euro weakened in relation to the U.S. dollar. Glass container shipments in 2015 increased slightly compared to the prior year and this increased net sales by $9 million. Selling prices decreased in Europe due to competitive pressures and resulted in a $34 million decrease in net sales in 2015. This trend in lower prices is expected to continue into the first quarter of 2016.

North America: Net sales in North America in 2015 were $2,039 million compared with $2,003 million in 2014, an increase of $36 million, or 2%. Net sales from the acquired Vitro food and beverage business in the United States increased the region's net sales by $80 million in 2015. Total glass container shipments in the region were up 3% in 2015 compared to 2014. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were up slightly in 2015, however, an unfavorable sales mix resulted in $4 million of lower sales. Lower selling prices decreased net sales by $14 million in 2015 due, in part, to the Company's contractual pass through provisions of lower natural gas costs. Unfavorable foreign currency exchange rate changes decreased net sales by $26 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2015 were $1,064 million compared with $1,159 million in 2014, a decrease of $95 million, or 8%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $293 million in 2015 compared to 2014, principally due to a decline in the Brazilian real and the Colombian peso in relation to the U.S. dollar. Net sales from the acquired Vitro food and beverage business in Mexico and Bolivia increased the region's net sales by approximately $178 million in 2015. Total glass container shipments were up approximately 18% in 2015. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were down nearly 4% in 2015. This decline impacted net sales by approximately $45 million and was primarily due to a general economic slowdown in Brazil, which is expected to continue into 2016. Improved pricing in the current year benefited net sales by $65 million.

Asia Pacific: Net sales in Asia Pacific in 2015 were $671 million compared with $793 million for 2014, a decrease of $122 million, or 15%. The unfavorable effects of foreign currency exchange rate changes decreased net sales $117 million in 2015 compared to 2014, primarily due to the weakening of the Australian dollar in relation to the U.S. dollar. Glass container shipments were down 3% compared to the prior year, largely due to the planned plant closures in China in 2014. This resulted in $7 million of lower sales in 2015. Higher prices increased net sales by $2 million in the current year.

Segment Operating Profit

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2015 was $740 million compared to $908 million in 2014, a decrease of $168 million, or 19%. The decrease in segment operating profit was primarily due to unfavorable foreign currency exchange rates. In addition, cost inflation and lower operational performance in Europe increased operating costs in the current year. Segment operating profit for 2015 included approximately $46 million from the acquired Vitro Businesses.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2014		$ 908
Price	$ 19	
Sales volume (excluding acquisitions)	(8)	
Operating costs	(84)	
Vitro Acquisition	46	
Effects of changing foreign currency rates	(141)	
Total net effect on segment operating profit		(168)
Segment operating profit - 2015		$ 740

Europe: Segment operating profit in Europe in 2015 was $209 million compared with $353 million in 2014, a decrease of $144 million, or 41%. The unfavorable effects of foreign currency exchange rates in 2015 decreased segment operating profit by $63 million compared to the prior year. The region also had higher operating costs and lower production volumes in 2015 due to a higher level of furnace rebuild activity and lower productivity. In addition, the region did not receive an energy credit from a local government entity in 2015 as it had in the prior year. Together, this activity contributed to a $49 million increase to operating expenses in Europe in 2015 compared to 2014. Lower selling prices impacted segment operating profit by $34 million due to competitive activity, primarily in Southern Europe, while slightly higher sales volumes benefited segment operating profit by $2 million in 2015.

North America: Segment operating profit in North America in 2015 was $265 million compared with $240 million in 2014, an increase of $25 million, or 10%. Segment operating profit from the acquired Vitro food and beverage glass container distribution business in the region contributed $4 million in 2015. Segment operating profit also benefited from lower operating costs of $38 million in the current year, which were driven by lower energy, supply chain and logistics costs. As a result of the lower energy costs and the Company's contractual pass through provisions, selling prices were $14 million lower in 2015 compared to 2014. Also, the unfavorable effects of the weakening of the Canadian dollar in relation to the U.S. dollar decreased segment operating profit by $3 million.

Latin America: Segment operating profit in Latin America in 2015 was $183 million compared with $227 million in 2014, a decrease of $44 million, or 19%. The unfavorable effects of foreign currency rate changes decreased segment operating profit by $58 million in the current year. Segment operating profit from the acquired Vitro food and beverage business increased the region's operating profit by $42 million in 2015. Excluding the impact of the Vitro Acquisition, the decline in sales volume discussed above reduced segment operating profit by $12 million. Segment operating profit was also impacted by $75 million of higher operating costs, primarily due to energy and soda ash inflation in Brazil. In addition, approximately $6 million of non-strategic asset sales, which benefited 2014, did not reoccur in 2015. Higher selling prices increased segment operating profit by $65 million in 2015.

Asia Pacific: Segment operating profit in Asia Pacific in 2015 was $83 million compared with $88 million in 2014, a decrease of $5 million, or 6%. The unfavorable effects of foreign currency exchange rates decreased segment operating profit by $17 million. Despite the decline in sales volume discussed above, a favorable sales mix resulted in a $2 million increase to segment operating profit. Segment operating profit also benefited as operating costs decreased by $8 million in the current year driven by footprint savings from prior year capacity reductions in the region and the favorable impact of an insurance recovery. Higher selling prices increased segment operating profit by $2 million in the current year.

Interest Expense, net

Net interest expense in 2015 was $251 million compared with $230 million in 2014. The increase was due to higher note repurchase premiums and the write-off of finance fees related to refinancing activities in 2015. Exclusive of these items, net interest expense decreased $1 million in the current year primarily due to debt management activities and the weaker Euro exchange rate in relation to the U.S. dollar, partially offset by an increase in net interest expense as a result of higher debt due to the Vitro Acquisition.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2015 was 39.6%, compared with 30.0% for 2014. The effective tax rate for 2015 was impacted by several charges that management considered not representative of ongoing operations, including charges for note repurchase premiums, the write-off of finance fees, restructuring charges and acquisition fees, for which no tax benefit was recorded due to the Company's valuation allowance recorded in the U.S. The effective tax rate for 2014 was impacted by a non-income tax charge, which was not deductible for income tax purposes.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2015 was approximately 25%, compared with approximately 22% for 2014. The 2015 effective tax rate was higher due to the geographic mix of earnings and timing issues associated with the establishment of the legal structure for the acquired operations in Mexico, the latter of which was resolved by year end 2015.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2015 was $23 million compared to $28 million for 2014. The decrease in 2015 was largely attributable to the unfavorable effect of changes in foreign currency exchange rates.

Earnings (loss) from Continuing Operations Attributable to the Company

For 2015, the Company recorded earnings from continuing operations attributable to the Company of $139 million, or $0.85 per share (diluted), compared with earnings of $187 million, or $1.13 per share (diluted), for 2014. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2015 and 2014 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2015**	**2014**
Restructuring, asset impairment and other charges	$ (73)	$ (67)
Note repurchase premiums and write-off of finance fees	(42)	(20)
Strategic transaction costs	(22)	
Charge for asbestos-related costs	(16)	(46)
Acquisition-related fair value inventory adjustments	(16)	
Acquisition-related fair value intangible adjustments	(9)	
Tax benefit (charge) for certain tax adjustments	(8)	8
Non-income tax charge		(69)
Pension settlement charges		(55)
Total	$ (186)	$ (249)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2015 were reduced due to foreign currency effects compared to 2014.

This trend has continued into 2016 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Items Excluded from Reportable Segment Totals

Retained Corporate Costs and Other

Retained corporate costs and other for 2016 were $98 million compared with $70 million for 2015. These costs were higher in 2016 primarily due to higher pension expense, management incentive compensation expense and the impact from currency hedges.

Retained corporate costs and other for 2015 were $70 million compared with $100 million for 2014. These costs were lower in 2015 primarily due to lower pension expense, management incentive compensation expense and the favorable impact from currency hedges.

Restructuring, Asset Impairment and Other Charges

During 2016, the Company recorded charges totaling $129 million for restructuring, asset impairment and other charges. These charges reflect $98 million of plant and furnace closures, primarily in the European and Latin America regions. In addition, other charges of $31 million were recorded during 2016, primarily related to an impairment charge recorded at one of the Company's equity investments.

During 2015, the Company recorded charges totaling $80 million for restructuring, asset impairment and other charges. These charges reflect $63 million of completed furnace closures, primarily in the North America and Latin America regions and other charges of $17 million.

During 2014, the Company recorded charges totaling $91 million for restructuring, asset impairment and other charges. These charges reflect $76 million of completed and planned furnace closures in Europe and Asia Pacific and other charges of $15 million.

See Note 8 to the Consolidated Financial Statements for additional information.

Pension Settlement Charges

During 2016, the Company recorded charges totaling $98 million for pension settlements in the United States.

During 2014, the Company recorded charges totaling $65 million for pension settlements in the United States and the Netherlands.

See Note 9 to the Consolidated Financial Statements for additional information.

Charge for Asbestos-Related Costs

For the year ended December 31, 2016, there was no adjustment required for asbestos-related costs, compared to the charges of $16 million and $46 million for the years ended December 31, 2015 and 2014, respectively. These charges resulted from the Company's comprehensive annual legal review of asbestos-related liabilities and costs. As part of its future comprehensive annual reviews, the Company will estimate its total asbestos-related liability and such reviews may result in adjustments to the liability accrued at the time of the review. The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty.

See "Critical Accounting Estimates" and Note 12 to the Consolidated Financial Statements for additional information.

Gain on China Land Compensation

During 2016, the Company recorded a gain of $71 million related to compensation received for land that the Company was required to return to the Chinese government.

Acquisition-related Fair Value Adjustments and Strategic Transaction Costs

During 2015, the Company recorded charges of $23 million for strategic transaction costs related to the Vitro Acquisition.

During 2015, the Company recorded charges of $22 million for acquisition-related fair value inventory adjustments related to the Vitro Acquisition. These charges were due to the accounting rules requiring inventory purchased in a business combination to be marked up to fair value and then recorded as an increase to cost of goods sold as the inventory is sold. During 2015, the Company also recorded charges of $10 million for acquisition-related fair value intangible asset adjustments related to trademark assets with short-term lives acquired as part of the Vitro Acquisition.

Non-income tax charge

In 2014, the Company recorded a $69 million charge based on a ruling on a non-income tax assessment.

Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") ruled that a subsidiary of the Company is free to pursue the enforcement of a prior arbitration award against Venezuela. That award amounts to more than $485 million after including interest from the date of the expropriation by Venezuela (October 26, 2010). Venezuela's application to annul the award is still pending, although the annulment proceedings were suspended in October 2016 because Venezuela has not paid its fees owed to ICSID. If the proceeding is stayed for non-payment for a consecutive period in excess of six months, ICSID's Secretary General could move that the committee discontinue the annulment proceeding altogether. The Company intends to take appropriate steps to vigorously enforce and collect the award, which is enforceable in approximately 150 member states that are party to the ICSID Convention. However, even with the lifting of the stay of enforcement, the Company recognizes that the collection of the award may present significant practical challenges. Because the award has yet to be satisfied and the annulment proceeding is pending, the Company is unable at this stage to reasonably predict the efforts that will be necessary to successfully enforce collection of the award, the amount of the award or the timing of any such collection efforts. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants.

The loss from discontinued operations of $7 million and $4 million, for the years ended December 31, 2016 and 2015, respectively, relates to ongoing costs for the Venezuelan expropriation.

The loss from discontinued operations of $23 million for the year ended December 31, 2014 included a settlement of a dispute with a purchaser of a previously disposed business, as well as ongoing costs related to the Venezuelan expropriation.

Vitro Acquisition

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from a senior notes offering, cash on hand and the incremental term loan facilities (see Note 11 to the Consolidated Financial Statements).

Capital Resources and Liquidity

As of December 31, 2016, the Company had cash and total debt of $492 million and $5.3 billion, respectively, compared to $399 million and $5.6 billion, respectively, as of December 31, 2015. A significant portion of the cash was held in mature, liquid markets where the Company has operations, such as the U.S., Europe and Australia, and is readily available to fund global liquidity requirements. The amount of cash held in non-U.S. locations as of December 31, 2016 was $459 million.

Current and Long-Term Debt

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on February 3, 2016 (the "Amended Agreement"). In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 19 to the Consolidated Financial Statements), the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Amended Agreement and (ii) a $575 million term loan B facility, which was subsequently repaid in full in November 2016 as described below.

At December 31, 2016, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,395 million net of debt issuance costs), and a €279 million term loan A facility ($282 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2016, the Company had unused credit of $884 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2016 was 2.39%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of (i) 4.5x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and (ii) 4.0x for the fourth fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2016, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting the debt discount and debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2016 and 2015 is as follows:

	2016	2015
Balance (included in short-term loans)	$ 152	$ 158
Weighted average interest rate	0.74%	1.21%

Cash Flows

Operating activities: Cash provided by continuing operating activities was $758 million for 2016 compared to $612 million for 2015. Higher net earnings and the impact from higher depreciation and amortization were the primary drivers for the improvement in cash provided by continuing operating activities in 2016. In addition, lower asbestos-related payments and cash paid for restructuring activities in 2016 more than offset the impact of higher pension contributions than in the prior year. Working capital was a source of cash of $90 million and $88 million for 2016 and 2015, respectively, and included $128 million received in 2016 as a refund on value added taxes previously paid by the Company in conjunction with the Vitro Acquisition. This refund will not reoccur in 2017.

Investing activities: Cash utilized in investing activities was $417 million for 2016 compared to $2,748 million for 2015. Capital spending for property, plant and equipment during 2016 was $454 million, compared with $402 million in the prior year, and reflected a full year of capital spending related to the Vitro Business in 2016 compared to only four months in 2015.

Investing activities in 2016 also included $56 million paid for acquisitions and primarily related to additional contributions made to the Company's investment in a joint venture in Nava, Mexico. In 2017, the Company expects to contribute approximately $42 million for the joint venture's expansion plans. Cash utilized for acquisitions in 2015 was $2,351 and primarily related to the Vitro Acquisition. In 2016, the Company received $85 million in net proceeds on the disposal of assets, which were primarily related to cash received from the Chinese government for the Company's sale of certain land use rights and related properties.

Financing activities: Cash utilized in financing activities was $228 million for 2016 compared to $2,057 million of cash provided by financing activities for 2015. Financing activities in 2016 included additions to long-term debt of $1,235 million, which included the issuance of €500 million of senior notes. Financing

activities in 2016 also included the repayment of long-term debt of $1,453 million, which included the repayment of floating-rate debt in the Company's Senior Secured Credit Facility from the proceeds of the previously mentioned senior note issuance. Financing activities in 2015 included additions to long-term debt of $4,538 million, primarily related to the borrowings for the Vitro Acquisition and the refinancing of the Company's Senior Secured Credit Facility. Financing activities in 2015 included the repayment of long-term debt of $2,321 million, which included the repayment of the previous credit agreement and the repayment of the senior notes due in 2016. Borrowings under short-term loans increased by $10 million in 2016. The Company paid approximately $9 million in note repurchase premiums and finance fees in 2016 compared to $90 million in 2015.

The Company paid $16 million and $22 million in distributions to noncontrolling interests in 2016 and 2015, respectively. In 2016, the Company did not repurchase any shares of its common stock compared to $100 million repurchased in 2015.

The Company anticipates that cash flows from its operations and from utilization of credit available under the Amended Agreement will be sufficient to fund its operating and seasonal working capital needs, debt service and other obligations on a short-term (twelve months) and long-term basis. Based on the Company's expectations regarding future payments for lawsuits and claims and also based on the Company's expected operating cash flow, the Company believes that the payment of any deferred amounts of previously settled or otherwise determined lawsuits and claims, and the resolution of presently pending and anticipated future lawsuits and claims associated with asbestos, will not have a material adverse effect upon the Company's liquidity on a short-term or long-term basis.

Contractual Obligations and Off-Balance Sheet Arrangements

The following information summarizes the Company's significant contractual cash obligations at December 31, 2016 (dollars in millions).

	Payments due by period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Contractual cash obligations:					
Long-term debt	$ 5,109	$ 27	$ 375	$ 2,414	$ 2,293
Capital lease obligations	57	6	13	14	24
Operating leases	205	65	79	37	24
Interest(1)	1,267	233	433	320	281
Purchase obligations(2)	1,742	637	593	168	344
Pension benefit plan contributions(3)	32	32			
Postretirement benefit plan benefit payments(1)	102	11	22	21	48
Equity affiliate investment obligation(4)	42	42			
Total contractual cash obligations	$ 8,556	$ 1,053	$ 1,515	$ 2,974	$ 3,014

	Amount of commitment expiration per period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Other commercial commitments:					
Standby letters of credit	$ 56	$ 56	$ —	$ —	$ —
Total commercial commitments	$ 56	$ 56	$ —	$ —	$ —

(1) Amounts based on rates and assumptions at December 31, 2016.

(2) The Company's purchase obligations consist principally of contracted amounts for energy and molds. In cases where variable prices are involved, current market prices have been used. The amount above does not include ordinary course of business purchase orders because the majority of such purchase orders may be canceled. The Company does not believe such purchase orders will adversely affect its liquidity position.

(3) In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $32 million in 2017. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly.

(4) In 2014, the Company entered into a joint venture agreement with Constellation Brands, Inc. to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant over the next two years. The Company expects to contribute approximately $42 million for the joint venture's expansion plans through 2017.

The Company is unable to make a reasonably reliable estimate as to when cash settlement with taxing authorities may occur for its unrecognized tax benefits. Therefore, the liability for unrecognized tax benefits is not included in the table above. See Note 10 to the Consolidated Financial Statements for additional information.

Critical Accounting Estimates

The Company's analysis and discussion of its financial condition and results of operations are based upon its consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The Company evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical and other factors believed to be reasonable under the circumstances at the time the financial statements are issued. The results of these estimates may form the basis of the carrying value of certain assets and liabilities and may not be readily apparent from other sources. Actual results, under conditions and circumstances different from those assumed, may differ from estimates.

The impact of, and any associated risks related to, estimates and assumptions are discussed within Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in the Notes to the Consolidated Financial Statements, if applicable, where estimates and assumptions affect the Company's reported and expected financial results.

The Company believes that accounting for the impairment of long-lived assets, pension benefit plans, contingencies and litigation related to its asbestos liability, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements.

Impairment of Long-Lived Assets

Property, Plant and Equipment—The Company tests for impairment of PP&E whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. PP&E held for use in the Company's business is grouped for impairment testing at the lowest level for which cash flows can reasonably be identified, typically a segment or a component of a segment. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. PP&E held for sale is reported at the lower of carrying amount or fair value less cost to sell.

Impairment testing requires estimation of the fair value of PP&E based on the discounted value of projected future cash flows generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include, among other things: industry and market conditions, sales volume and prices, production costs and inflation. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The Company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

Goodwill –Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as projected future cash flows of the reporting units, discount rates, and terminal business value, and are classified as Level 3 in the fair value hierarchy. The Company's projected future cash flows incorporates management's best estimates of the expected future results including, but not limited to, price trends, customer demand, material costs, asset replacement costs and any other known factors.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment, also known as a component. Two or more components of an operating segment shall be aggregated into a single reporting unit if the components have similar economic characteristics, based on an assessment of various factors. The Company has determined that the Europe and North America segments are reporting units. The Company aggregated the components of the Latin America and Asia Pacific segments into single reporting units equal to the reportable segments. The aggregation of the components of these segments was based on their economic similarity as determined by the Company using a number of quantitative and qualitative factors, including gross margins, the manner in which the Company operates the business, the consistent nature of products, services, production processes, customers and methods of distribution, as well as the level of shared resources and assets between the components.

During the fourth quarter of 2016, the Company completed its annual impairment testing and determined that no impairment of goodwill existed. Goodwill at December 31, 2016 totaled approximately $2.5 billion, representing 27% of total assets. The Company has four reporting units of which three of the reporting units have goodwill and include; approximately $800 million of recorded goodwill to the Company's Europe segment, approximately $600 million of recorded goodwill to the Company's Latin America segment and approximately $1 billion of recorded goodwill to the Company's North America segment. The testing performed as of October 1, 2016, indicated a significant excess of BEV over book value for North America and Latin America. Europe exceeded its carrying values by approximately 12%, and is determined to be the reporting unit having the greatest risk of future impairment if actual results fall modestly short of expectations. If the Company's projected future cash flows were substantially lower, or if the assumed weighted average cost of capital was substantially higher, the testing performed as of October 1, 2016, may have indicated an impairment of one or more of these reporting units and, as a result, the related goodwill may also have been impaired. Any impairment charges that the Company may take in the future could be material to its consolidated results of operations and financial condition. However, less significant changes in projected future cash flows or the assumed weighted average cost of capital would not have indicated an impairment. For example, if projected future cash flows had been decreased by 5%, or if the weighted average cost of capital had been increased by 5%, or both, the resulting lower BEV's would still have exceeded the book value of each of these reporting units.

During the time subsequent to the annual evaluation, and at December 31, 2016, the Company considered whether any events and/or changes in circumstances had resulted in the likelihood that the goodwill of any of its reporting units may have been impaired and has determined that no such events have occurred. The Company will monitor conditions throughout 2017 that might significantly affect the projections and variables used in

the impairment test to determine if a review prior to October 1 may be appropriate. If the results of impairment testing confirm that a write down of goodwill is necessary, then the Company will record a charge in the fourth quarter of 2017, or earlier if appropriate. In the event the Company would be required to record a significant write down of goodwill, the charge would have a material adverse effect on reported results of operations and net worth.

Other Long-Lived Assets - Intangibles – Other long-lived assets consist primarily of purchased customer relationships intangibles and are amortized using the accelerated amortization method over their estimated useful lives. The Company reviews these assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. In the event that a decline in fair value of an asset occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. The test for impairment would require the Company to make estimates about fair value, which may be determined based on discounted cash flows, third party appraisals or other methods that provide appropriate estimates of value. The Company continually monitors the carrying value of their assets.

Pension Benefit Plans

Significant Estimates—The determination of pension obligations and the related pension expense or credits to operations involves significant estimates. The most significant estimates are the discount rate used to calculate the actuarial present value of benefit obligations and the expected long-term rate of return on plan assets. The Company uses discount rates based on yields of high quality fixed rate debt securities at the end of the year. At December 31, 2016, the weighted average discount rate was 4.17 % and 2.94 % for U.S. and non-U.S. plans, respectively. The Company uses an expected long-term rate of return on assets that is based on both past performance of the various plans' assets and estimated future performance of the assets. Due to the nature of the plans' assets and the volatility of debt and equity markets, actual returns may vary significantly from year to year. The Company refers to average historical returns over longer periods (up to 10 years) in determining its expected rates of return because short-term fluctuations in market values do not reflect the rates of return the Company expects to achieve based upon its long-term investing strategy. For purposes of determining pension charges and credits in 2016, the Company's estimated weighted average expected long-term rate of return on plan assets is 7.50% for U.S. plans and 7.15% for non-U.S. plans compared to 8.00% for U.S. plans and 7.21% for non-U.S. plans in 2015. The Company recorded pension expense from continuing operations (exclusive of settlement charges) of $23 million, $24 million, and $19 million for the U.S. plans in 2016, 2015 and 2014, respectively, and $8 million, $7 million, and $24 million for the non-U.S. plans in 2016, 2015, and 2014, respectively from its principal defined benefit pension plans. Depending on currency translation rates, the Company expects to record approximately $29 million of total pension expense for the full year of 2017. The 2017 pension expense will reflect a 7.50% expected long-term rate of return for the U.S. assets.

Future effects on reported results of operations depend on economic conditions and investment performance. For example, a one-half percentage point change in the actuarial assumption regarding discount rates or in the expected rate of return used to calculate plan liabilities would result in a change of approximately $7 million and $13 million, respectively, in the pretax pension expense for the full year 2017.

Recognition of Funded Status—The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

Contingencies and Litigation Related to Asbestos Liability

For many years, the Company has conducted a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its current annual comprehensive legal review, the Company provides historical claims filing data to a third party consultant with expertise in predicting future claims filings based on actuarial inputs such as disease incidence and mortality. The Company uses these estimates of total future claims, along with its legal judgment regarding an estimation of future disposition costs and related legal costs, as inputs to develop a reasonable estimate of probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are described in the Risk Factors section and in Note 12 to the Consolidated Financial Statements. Changes in these significant assumptions have the potential to impact the Company's asbestos-related liability.

In addition, if trends relating to the Company's actual claims filings materially differ, up or down, from the amounts predicted, the total number of estimated claims indicated by future actuarial analyses could change significantly. Significant changes in the total number of predicted claims could impact the total predicted asbestos-related liability, which in turn could result in a material charge or credit to the Company's results of operations.

The Company uses historical data for both indemnity and related legal costs, as well as its legal judgment and expectations about future inflationary and deflationary drivers, to predict the estimated disposition cost per claim and the legal costs for the remainder of the litigation. If trends relating to the actual per claim cost differ materially, up or down, from the previously estimated amount, the Company may in the future revise its estimate of its asbestos-related liability. The same may also be true with respect to legal costs. Significant changes in the estimated asbestos-related liability could result in a material charge or credit to the Company's results of operations.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $692 million as of December 31, 2016. The Company estimates that reasonably possible losses could be as high as $825 million. This estimate of additional reasonably possible loss reflects a legal judgment about the number and cost of potential future claims. The Company believes this estimate is consistent with the level of variability it has experienced when comparing actual results to recent near-term projections. However, it is also possible that the ultimate asbestos-related liability could be above this estimate.

Income Taxes

The Company accounts for income taxes as required by general accounting principles under which management judgment is required in determining income tax expense and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. The Company has received tax assessments in excess of established reserves. The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using enacted tax rates and for operating losses and tax credit carryforwards. Deferred tax assets and liabilities are determined separately for each tax jurisdiction in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards;
- taxable income in prior carryback years; and
- tax planning strategies

The assessment regarding whether a valuation allowance is required or should be adjusted also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of recent losses;
- duration of statutory carryforward periods;
- historical experience with tax attributes expiring unused; and
- near- and medium-term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last three years and current year anticipated results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

The utilization of tax attributes to offset taxable income reduces the overall level of deferred tax assets subject to a valuation allowance. Additionally, the Company's recorded effective tax rate is lower than the applicable statutory tax rate, due primarily to income earned in jurisdictions for which a valuation allowance is recorded. The effective tax rate will approach the statutory tax rate in periods after valuation allowances are released. In the period in which valuation allowances are released, the Company will record a material tax benefit, which could result in a negative effective tax rate.

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Market risks relating to the Company's operations result primarily from fluctuations in foreign currency exchange rates, changes in interest rates, and changes in commodity prices, principally energy and soda ash. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates. The Company also uses certain derivative instruments to mitigate a portion of the risk associated with fluctuating energy prices in its North American region. These instruments carry varying degrees of counterparty credit risk. To mitigate this risk, the Company has defined a financial counterparty policy that established criteria to select qualified counterparties based on credit ratings and CDC spreads. The policy also limits the exposure with individual counterparties. The Company monitors these exposures quarterly. The Company does not enter into derivative financial instruments for trading purposes.

Foreign Currency Exchange Rate Risk

Earnings of operations outside the United States

A substantial portion of the Company's operations are conducted by subsidiaries outside the U.S. The primary international markets served by the Company's subsidiaries are in Canada, Australia, China, Latin America (principally Brazil, Colombia, and Mexico), and Europe (principally France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom). In general, revenues earned and costs incurred by the Company's major international operations are denominated in their respective local currencies. Consequently, the Company's reported financial results could be affected by factors such as changes in foreign currency exchange rates or highly inflationary economic conditions in the international markets in which the Company's subsidiaries operate. When the U.S. dollar strengthens against foreign currencies, the reported U.S. dollar value of local currency earnings generally decreases; when the U.S. dollar weakens against foreign currencies, the reported U.S. dollar value of local currency earnings generally increases. For the years ended December 31, 2016, 2015 and 2014, the Company did not have any significant foreign subsidiaries whose functional currency was the U.S. dollar.

Borrowings not denominated in the functional currency

Because the Company's subsidiaries operate within their local economic environment, the Company believes it is appropriate to finance those operations with borrowings denominated in the local currency to the extent practicable where debt financing is desirable or necessary. This strategy mitigates the risk of reported losses or gains in the event the foreign currency strengthens or weakens against the U.S. dollar. Considerations which influence the amount of such borrowings include long- and short-term business plans, tax implications, and the availability of borrowings with acceptable interest rates and terms.

Available excess funds of a subsidiary may be redeployed through intercompany loans to other subsidiaries for debt repayment, capital investment, or other cash requirements. The intercompany loans give rise to foreign currency exchange rate risk, which the Company mitigates through the use of forward exchange contracts that effectively swap the intercompany loan and related interest to the appropriate local currency.

The Company believes the near term exposure to foreign currency exchange rate risk of its foreign currency risk sensitive instruments was not material at December 31, 2016 and 2015.

Interest Rate Risk

The Company's interest expense is most sensitive to changes in the general level of interest rates applicable to the term loans under its Secured Credit Agreement (see Note 11 to the Consolidated Financial Statements for further information). The Company's interest rate risk management objective is to limit the impact of interest rate changes on net income and cash flow, while minimizing interest payments and expense. To achieve this objective, the Company regularly evaluates its mix of fixed and floating-rate debt, and, from time to time, may enter into interest rate swap agreements.

The following table provides information about the Company's interest rate sensitivity related to its significant debt obligations at December 31, 2016. The table presents principal cash flows and related weighted-average interest rates by expected maturity date.

(Dollars in millions)	2017	2018	2019	2020	2021	There-after	Total	Fair Value at 12/31/2016
Long-term debt at variable rate:								
Principal by expected maturity	$ 25	$ 29	$ 92	$ 1,542	$ 2	$ —	$ 1,690	$ 1,690
Avg. principal outstanding	$ 845	$ 1,678	$ 1,651	$ 1,590	$ 773	$ 1		
Avg. interest rate	2.43%	2.43%	2.43%	2.43%	2.43%	2.43%		
Long-term debt at fixed rate:								
Principal by expected maturity	$ 8	$ 258	$ 9	$ 532	$ 353	$ 2,316	$ 3,476	$ 3,771
Avg. principal outstanding	$ 3,474	$ 3,224	$ 3,224	$ 2,700	$ 2,346	$ 1,852		
Avg. interest rate	5.50%	4.68%	4.18%	4.29%	4.09%	5.09%		

The Company believes the near term exposure to interest rate risk of its debt obligations has not changed materially since December 31, 2016.

In addition, the determination of pension obligations and the related pension expense or credits to operations involves significant estimates. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly. The discount rate is a significant estimate that is used to calculate the actuarial present value of benefit obligations and is based on yields of high quality fixed rate debt securities at the end of the year. For example, a one-half percentage point change in the actuarial assumption regarding discount rates or in the expected rate of return used to calculate plan liabilities would result in a change of approximately $7 million and $13 million, respectively, in the pretax pension expense for the full year 2017.

Commodity Price Risk

The Company has exposure to commodity price risk, principally related to energy. In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2016, the Company had entered into commodity forward contracts covering approximately 12,300,000 MM BTUs, primarily related to customer requests to lock the price of natural gas. In Europe, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of 3 years or less.

The Company believes the near term exposure to commodity price risk of its commodity forward contracts was not material at December 31, 2016.

Forward Looking Statements

This document contains "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Section 27A of the Securities Act of 1933. Forward-looking statements reflect the Company's current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words "believe," "expect," "anticipate," "will," "could," "would," "should," "may," "plan," "estimate," "intend," "predict," "potential," "continue," and the negatives of these words and other similar expressions generally identify forward-looking statements. It is possible the Company's future financial performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) the Company's ability to integrate the Vitro Business in a timely and cost effective manner, and to realize expected growth opportunities, cost savings and synergies from the Vitro Acquisition, (2) foreign currency fluctuations relative to the U.S. dollar, (3) changes in capital availability or cost, including interest rate fluctuations and the ability of the Company to refinance debt at favorable terms, (4) the general political, economic and competitive conditions in markets and countries where the Company has operations, including uncertainties related to economic and social conditions, disruptions in capital markets, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, and changes in tax rates and laws, (5) the Company's ability to generate sufficient future cash flows to ensure the Company's goodwill is not impaired, (6) consumer preferences for alternative forms of packaging, (7) cost and availability of raw materials, labor, energy and transportation, (8) the Company's ability to manage its cost structure, including its success in implementing restructuring plans and achieving cost savings, (9) consolidation among competitors and customers, (10) the Company's ability to acquire businesses and expand plants, integrate operations of acquired businesses and achieve expected synergies, (11) unanticipated expenditures with respect to environmental, safety and health laws, (12) the Company's ability to further develop its sales, marketing and product development capabilities, (13) the Company's ability to prevent and detect cybersecurity threats against its information technology systems, (14) the Company's ability to accurately estimate its total asbestos-related liability or to control the timing and occurrence of events relates to asbestos-related claims, (15) changes in U.S. trade policies, (16) the Company's ability to achieve its strategic plan, and the other risk factors discussed in this Annual Report on Form 10-K for the year ended December 31, 2016 and any subsequently filed Quarterly Report on Form 10-Q. It is not possible to foresee or identify all such factors. Any forward-looking statements in this document are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company's results of operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward-looking statements contained in this document.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2016. Our audits also included the financial statement schedule listed in the Index at Item 15. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Illinois, Inc. at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 10, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2017

Owens-Illinois, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions, except per share amounts

Years ended December 31,	2016	2015	2014
Net sales	$ 6,702	$ 6,156	$ 6,784
Cost of goods sold	(5,490)	(5,046)	(5,531)
Gross profit	1,212	1,110	1,253
Selling and administrative expense	(503)	(476)	(523)
Research, development and engineering expense	(65)	(64)	(63)
Interest expense, net	(272)	(251)	(230)
Equity earnings	60	60	64
Other expense, net	(76)	(111)	(194)
Earnings from continuing operations before income taxes	356	268	307
Provision for income taxes	(119)	(106)	(92)
Earnings from continuing operations	237	162	215
Loss from discontinued operations	(7)	(4)	(23)
Net earnings	230	158	192
Net (earnings) attributable to noncontrolling interests	(21)	(23)	(28)
Net earnings attributable to the Company	$ 209	$ 135	$ 164
Amounts attributable to the Company:			
Earnings from continuing operations	$ 216	$ 139	$ 187
Loss from discontinued operations	(7)	(4)	(23)
Net earnings	$ 209	$ 135	$ 164
Basic earnings per share:			
Earnings from continuing operations	$ 1.33	$ 0.86	$ 1.14
Loss from discontinued operations	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.29	$ 0.83	$ 1.00
Diluted earnings per share:			
Earnings from continuing operations	$ 1.32	$ 0.85	$ 1.13
Loss from discontinued operations	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.28	$ 0.82	$ 0.99

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2016	2015	2014
Net earnings	$ 230	$ 158	$ 192
Other comprehensive loss:			
Foreign currency translation adjustments	(224)	(529)	(305)
Pension and other postretirement benefit adjustments, net of tax	52	(4)	(90)
Change in fair value of derivative instruments, net of tax	13	(6)	1
Other comprehensive loss	(159)	(539)	(394)
Total comprehensive income (loss)	71	(381)	(202)
Comprehensive income attributable to noncontrolling interests	(17)	(7)	(7)
Comprehensive income (loss) attributable to the Company	$ 54	$ (388)	$ (209)

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$ 492	$ 399
Trade receivables, net of allowances of $32 million and $29 million at December 31, 2016 and 2015, respectively	580	562
Inventories	983	1,007
Prepaid expenses and other current assets	199	366
Total current assets	2,254	2,334
Other assets:		
Equity investments	433	409
Pension assets	40	32
Other assets	602	599
Intangibles	464	597
Goodwill	2,462	2,489
Total other assets	4,001	4,126
Property, plant and equipment:		
Land, at cost	241	252
Buildings and equipment, at cost:		
Buildings and building equipment	1,090	1,123
Factory machinery and equipment	4,496	4,526
Transportation, office and miscellaneous equipment	85	88
Construction in progress	238	238
	6,150	6,227
Less accumulated depreciation	3,270	3,266
Net property, plant and equipment	2,880	2,961
Total assets	$ 9,135	$ 9,421

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions, except per share amounts

December 31,	2016	2015
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable	$ 1,135	$ 1,212
Salaries and wages	174	145
U.S. and foreign income taxes	58	36
Current portion of asbestos-related liabilities	115	130
Other accrued liabilities	383	371
Short-term loans	162	160
Long-term debt due within one year	33	68
Total current liabilities	2,060	2,122
Long-term debt	5,133	5,345
Deferred taxes	100	124
Pension benefits	552	504
Nonpension postretirement benefits	162	155
Other liabilities	188	205
Asbestos-related liabilities	577	687
Share owners' equity:		
Share owners' equity of the Company:		
Common stock, par value $.01 per share, 250,000,000 shares authorized, 185,354,796 and 184,480,646 shares issued (including treasury shares), respectively	2	2
Capital in excess of par value	3,080	3,064
Treasury stock, at cost, 23,017,367 and 23,519,049 shares, respectively	(560)	(573)
Retained loss	(96)	(305)
Accumulated other comprehensive loss	(2,172)	(2,017)
Total share owners' equity of the Company	254	171
Noncontrolling interests	109	108
Total share owners' equity	363	279
Total liabilities and share owners' equity	$ 9,135	$ 9,421

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owners' Equity of the Company						
	Common Stock	Capital in Excess of Par Value	Treasury Stock	Retained Earnings (Loss)	Accumulated Other Comprehensive Loss	Non-controlling Interests	Total Share Owners' Equity
Balance on January 1, 2014	$ 2	$ 3,040	$ (454)	$ (604)	$ (1,121)	$ 147	$ 1,010
Issuance of common stock (0.3 million shares)		5					5
Reissuance of common stock (0.2 million shares)			6				6
Treasury shares purchased (1.1 million shares)			(32)				(32)
Stock compensation		21					21
Net earnings				164		28	192
Other comprehensive income (loss)					(373)	(21)	(394)
Distributions to noncontrolling interests						(37)	(37)
Balance on December 31, 2014	2	3,066	(480)	(440)	(1,494)	117	771
Issuance of common stock (0.2 million shares)		1					1
Reissuance of common stock (0.3 million shares)			7				7
Treasury shares purchased (4.1 million shares)			(100)				(100)
Stock compensation		15					15
Net earnings				135		23	158
Other comprehensive income (loss)					(523)	(16)	(539)
Distributions to noncontrolling interests						(22)	(22)
Acquisitions of noncontrolling interests		(18)				6	(12)
Balance on December 31, 2015	2	3,064	(573)	(305)	(2,017)	108	279
Issuance of common stock (0.3 million shares)		5					5
Reissuance of common stock (0.1 million shares)			13				13
Stock compensation		11					11
Net earnings				209		21	230
Other comprehensive income (loss)					(155)	(4)	(159)
Distributions to noncontrolling interests						(16)	(16)
Balance on December 31, 2016	$ 2	$ 3,080	$ (560)	$ (96)	$ (2,172)	$ 109	$ 363

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2016	2015	2014
Operating activities:			
Net earnings	$ 230	$ 158	$ 192
Loss from discontinued operations	7	4	23
Non-cash charges (credits):			
Depreciation	375	323	335
Amortization of intangibles and other deferred items	103	86	83
Amortization of finance fees and debt discount	13	15	30
Deferred tax provision (benefit)	(4)	12	(18)
Pension expense	31	31	43
Restructuring, asset impairment and related charges	98	63	76
Pension settlement charges	98		65
Impairment of equity investment	25		
Gain on China land sale	(71)		
Non-income tax charge			69
Asbestos-related costs		16	46
Acquisition-related fair value inventory adjustments		22	
Acquisition-related fair value intangible adjustments		10	
Pension contributions	(38)	(17)	(28)
Asbestos-related payments	(125)	(138)	(148)
Cash paid for restructuring activities	(24)	(38)	(58)
Change in components of working capital	90	88	117
Other	(50)	(23)	(129)
Cash provided by continuing operating activities	758	612	698
Cash utilized in discontinued operating activities	(7)	(4)	(23)
Total cash provided by operating activities	751	608	675
Investing activities:			
Additions to property, plant and equipment	(454)	(402)	(369)
Acquisitions, net of cash acquired	(56)	(2,351)	(114)
Net cash proceeds related to sale of assets and other	85	1	19
Net foreign exchange derivative activity	8	4	
Net activity for non-controlling partner loans			9
Cash utilized in investing activities	(417)	(2,748)	(455)
Financing activities:			
Additions to long-term debt	1,235	4,538	1,247
Repayments of long-term debt	(1,453)	(2,321)	(1,101)
Increase (decrease) in short-term loans	10	51	(139)
Payment of finance fees	(9)	(90)	(11)
Distributions paid to noncontrolling interests	(16)	(22)	(37)
Treasury shares purchased		(100)	(32)
Issuance of common stock and other	5	1	3
Cash provided by (utilized in) financing activities	(228)	2,057	(70)
Effect of exchange rate fluctuations on cash	(13)	(30)	(21)
Increase (decrease) in cash	93	(113)	129
Cash and cash equivalents at beginning of period	399	512	383
Cash and cash equivalents at end of period	$ 492	$ 399	$ 512

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tabular data dollars in millions, except per share amounts

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Illinois, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Stock-Based Compensation The Company has various stock-based compensation plans consisting of stock option grants and restricted share awards. Costs resulting from all share-based compensation plans are required to be recognized in the financial statements. A public entity is required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the required service period (usually the vesting period). No compensation cost is recognized for equity instruments for which employees do not render the required service.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from forward exchange contracts not designated as hedges are classified as an investing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company has started an implementation process, including a review of customer contracts, to evaluate the effect this standard will have on its consolidated financial statements and related disclosures. At this time, the Company does not expect that the implementation of this standard in 2018 will have a significant impact on the timing in which it recognizes revenue. While the Company continues to assess the potential impacts of the new standard, the Company does not currently expect the adoption of the new standard to have a material impact on consolidated net income or the consolidated balance sheet. The Company plans to select the modified retrospective transition method upon adoption effective January 1, 2018.

Leases - In February 2016, the FASB issued ASU No. 2016-02, "Leases". Under this guidance, lessees will be required to recognize on the balance sheet a lease liability and a right-of-use asset for all leases, with the exception of short-term leases. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and will be measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and will be measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. The standard also requires a lessee to recognize a single lease cost allocated over the lease term, generally on a straight-line basis. The new guidance is effective for the Company on January 1, 2019. ASU No. 2016-02 is required to be applied using the modified retrospective approach for all leases existing as of the effective date and provides for certain practical expedients. Early adoption is permitted. The Company is currently evaluating the effects that the adoption of ASU No. 2016-02 will have on the Company's consolidated financial statements, and anticipates the new guidance will significantly impact its consolidated financial statements as the Company has a significant number of leases. As further described in Note 16, Operating Leases, as of December 31, 2016, the Company had minimum lease commitments under non-cancellable operating leases totaling $205 million.

Credit Losses - In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This guidance requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. This guidance also requires enhanced disclosures regarding significant estimates and judgments used in estimating credit losses. The new guidance is effective for the Company on January 1, 2020. Early adoption is permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Stock Compensation - In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting," which requires all excess tax benefits or deficiencies to be recognized as income tax expense or benefit in the income statement. In addition, excess tax benefits should be classified along with other income tax cash flows as an operating activity in the statement of cash flows. Application of the standard is required for the Company on January 1, 2017. The Company does not expect a significant impact in its Consolidated Financial Statements.

Pension Asset Value - In May 2015, the FASB issued ASU No. 2015-07, "Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalent)." Under the new guidance, investments measured at net asset value ("NAV"), as a practical expedient for fair value, are excluded from the fair value hierarchy. Removing investments measured using the practical expedient from the fair value hierarchy is intended to eliminate the diversity in practice that currently exists with respect to the categorization of these investments. The new guidance is effective for the Company on January 1, 2016. The guidance impacted the presentation of certain pension related assets that use NAV as a practical expedient. See Note 9 for additional information.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015 (see Note 19), the Company has renamed the former South America segment to the Latin America segment. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2016	2015	2014
Net sales:			
Europe	$ 2,300	$ 2,324	$ 2,794
North America	2,220	2,039	2,003
Latin America	1,432	1,064	1,159
Asia Pacific	684	671	793
Reportable segment totals	6,636	6,098	6,749
Other	66	58	35
Net sales	$ 6,702	$ 6,156	$ 6,784

	2016	2015	2014
Segment operating profit:			
Europe	$ 237	$ 209	$ 353
North America	299	265	240
Latin America	269	183	227
Asia Pacific	77	83	88
Reportable segment totals	882	740	908
Items excluded from segment operating profit:			
Retained corporate costs and other	(98)	(70)	(100)
Charge for asbestos-related costs		(16)	(46)
Restructuring, asset impairment and other charges	(129)	(80)	(91)
Pension settlement charges	(98)		(65)
Gain on China land sale	71		
Strategic transaction costs		(23)	
Acquisition-related fair value inventory adjustments		(22)	
Acquisition-related fair value intangible adjustments		(10)	
Non-income tax charge			(69)
Interest expense, net	(272)	(251)	(230)
Earnings from continuing operations before income taxes	$ 356	$ 268	$ 307

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Retained Corp Costs and Other	Consolidated Totals
Total assets:							
2016	$ 2,792	$ 2,522	$ 2,537	$ 926	$ 8,777	$ 358	$ 9,135
2015	2,902	2,500	2,807	917	9,126	295	9,421
2014	3,214	1,971	1,300	1,018	7,503	340	7,843
Equity investments:							
2016	$ 78	$ 21	$ —	$ 117	$ 216	$ 217	$ 433
2015	78	22		145	245	164	409
2014	81	24		153	258	169	427
Equity earnings:							
2016	$ 15	$ 12	$ —	$ 4	$ 31	$ 29	$ 60
2015	16	19		7	42	18	60
2014	19	17		4	40	24	64
Capital expenditures:							
2016	$ 163	$ 108	$ 123	$ 59	$ 453	$ 1	$ 454
2015	164	97	89	50	400	2	402
2014	188	89	55	34	366	3	369
Depreciation and amortization expense:							
2016	$ 118	$ 139	$ 173	$ 37	$ 467	$ 11	$ 478
2015	120	128	107	40	395	14	409
2014	140	131	79	53	403	15	418

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 749	$ 2,131	$ 2,880
2015	736	2,225	2,961
2014	713	1,732	2,445

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 2,124	$ 4,578	$ 6,702
2015	1,939	4,217	6,156
2014	1,852	4,932	6,784

Intercompany sales in Latin America totaled $195 million, $101 million and $0 for the years ended December 31, 2016, 2015, and 2014, respectively.

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015 — 10%, 2014 — 11%).

3. Inventories

Major classes of inventory are as follows:

	2016	2015
Finished goods	$ 827	$ 858
Raw materials	118	113
Operating supplies	38	36
	$ 983	$ 1,007

4. Equity Investments

At December 31, 2016 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50%	Glass container manufacturer
CO Vidrieria SARL ("COV")	50%	Glass container manufacturer
Rocky Mountain Bottle Company	50%	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25%	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50%	Glass container manufacturer
Vetri Speciali SpA	50%	Specialty glass manufacturer

Summarized information pertaining to the Company's equity affiliates follows:

	2016	2015	2014
Equity in earnings:			
Non-U.S.	$ 19	$ 23	$ 23
U.S.	41	37	41
Total	$ 60	$ 60	$ 64
Dividends received	$ 38	$ 53	$ 54

Summarized combined financial information for equity affiliates is as follows (unaudited):

	2016	2015
At end of year:		
Current assets	$ 451	$ 430
Non-current assets	1,025	959
Total assets	1,476	1,389
Current liabilities	200	203
Other liabilities and deferred items	368	211
Total liabilities and deferred items	568	414
Net assets	$ 908	$ 975

For the year:	2016	2015	2014
Net sales	$ 755	$ 719	$ 752
Gross profit	$ 182	$ 193	$ 198
Net earnings	$ 134	$ 139	$ 150

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2016, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed.

The Company made purchases of approximately $176 million and $161 million from equity affiliates in 2016 and 2015, respectively, and owed approximately $76 million and $66 million to equity affiliates as of December 31, 2016 and 2015, respectively.

There is a difference of approximately $12 million as of December 31, 2016, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2016, 2015 and 2014 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2014	$ 1,044	$ 734	$ 276	$ 5	$ 2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisition related adjustments		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	840	1,020	624	5	2,489
Acquisition related adjustments		15	26		41
Translation effects	(32)	3	(39)		(68)
Balance as of December 31, 2016	$ 808	$ 1,038	$ 611	$ 5	$ 2,462

The acquisition related adjustments in 2016 and 2015 primarily relate to the Vitro Acquisition (see Note 19).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2016, 2015 and 2014.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill

in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2016, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 19).

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Net intangible asset values were $464 million and $597 million for the years ended December 31, 2016 and 2015, respectively. Amortization expense for intangible assets was $39 million, $21 million and $1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Estimated amortization related to intangible assets through 2021 is as follows: 2017, $44 million; 2018, $44 million; 2019, $42 million; 2020, $41 million; and 2021, $39 million. No impairment existed on these assets at December 31, 2016.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets at December 31, 2016 and 2015 are as follows:

	2016	2015
Prepaid expenses	$ 50	$ 52
Value added taxes	46	195
Other	103	119
	$ 199	$ 366

Other assets (noncurrent) consist of the following at December 31, 2016 and 2015:

	2016	2015
Deferred tax assets	$ 185	$ 177
Deferred returnable packaging costs	115	110
Repair part inventories	107	118
Capitalized software	85	86
Value added taxes	22	17
Deferred finance fees	5	6
Other	83	85
	$ 602	$ 599

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $13 million, $19 million and $17 million for 2016, 2015 and 2014, respectively. Estimated amortization related to capitalized software through 2021 is as follows: 2017, $14 million; 2018, $14 million; 2019, $13 million; 2020, $12 million; and 2021, $11 million.

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2016 and 2015, the Company had entered into commodity forward contracts covering approximately 12,300,000 MM BTUs and 7,300,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2016 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized gain of $6 million at December 31, 2016 and an unrecognized loss of $4 million at December 31, 2015 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2016 and 2015 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Amount of gain (loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of gain (loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2016	2015	2014	2016	2015	2014
$ 7	$ (4)	$ 3	$ —	$ (1)	$ 2

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables,

payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2016 and 2015, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $490 million and $790 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2016	2015	2014
Other expense, net	$ 6	$ 10	$ (8)

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year.

The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2016 and 2015:

		Fair Value	
	Balance Sheet Location	2016	2015
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	b	$ 6	$ —
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	a	$ 9	$ 14
Total asset derivatives		$ 15	$ 14
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ —	$ 3
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	c	5	2
Total liability derivatives		$ 5	$ 5

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee

severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

In 2011, the Company initiated the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0, $0, and $1 million for the years ended 2016, 2015 and 2014, respectively for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company recorded total cumulative charges of $127 million and does not expect to execute any further actions under this program.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $4 million, $5 million and $73 million for the years ended 2016, 2015 and 2014, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company recorded total cumulative charges of $224 million and does not expect to execute any further actions under this program.

Other Restructuring Actions

In 2016, the Company recorded charges of $94 million for other restructuring actions. These charges primarily represented employee costs, write-down of assets, and other exit costs of $64 million for plant closures in Latin America, Europe, and North America and $30 million related to other restructuring actions. The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These

charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2015 through December 31, 2015:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January1, 2015	$ 12	$ 12	$ 36	$ 60
Charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)
Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2016 through December 31, 2016:

	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January1, 2016	$ 7	$ 36	$ 43
Charges	4	94	98
Write-down of assets to net realizable value		(28)	(28)
Net cash paid, principally severance and related benefits	(3)	(21)	(24)
Other, including foreign exchange translation	(1)	(3)	(4)
Balance at December 31, 2016	$ 7	$ 78	$ 85

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2016, the Company's estimates include approximately $67 million for employee benefits costs, $16 million for environmental remediation costs, and $2 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company has defined benefit pension plans covering a substantial number of employees located in the United States and several other non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date. The following tables relate to the Company's principal defined benefit pension plans.

The changes in the pension benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Obligations at beginning of year	$ 2,190	$ 2,428	$ 1,210	$ 1,311
Change in benefit obligations:				
Service cost	15	24	16	15
Interest cost	90	96	44	44
Actuarial (gain) loss, including the effect of change in discount rates	36	(107)	160	(9)
Curtailment, settlement, and plan amendment	(200)			
Acquisitions				37
Participant contributions			2	1
Benefit payments	(175)	(252)	(71)	(58)
Other		1	3	
Foreign currency translation			(129)	(131)
Net change in benefit obligations	(234)	(238)	25	(101)
Obligations at end of year	$ 1,956	$ 2,190	$ 1,235	$ 1,210

The changes in the fair value of the pension plans' assets for the year are as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Fair value at beginning of year	$ 1,909	$ 2,190	$ 1,012	$ 1,094
Change in fair value:				
Actual gain (loss) on plan assets	118	(32)	139	42
Benefit payments	(175)	(252)	(71)	(58)
Employer contributions	2	2	38	15
Participant contributions			2	1
Settlements	(200)			
Acquisitions				22
Foreign currency translation			(111)	(104)
Other		1	2	
Net change in fair value of assets	(255)	(281)	(1)	(82)
Fair value at end of year	$ 1,654	$ 1,909	$ 1,011	$ 1,012

The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

The funded status of the pension plans at year end is as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Plan assets at fair value	$ 1,654	$ 1,909	$ 1,011	$ 1,012
Projected benefit obligations	1,956	2,190	1,235	1,210
Plan assets less than projected benefit obligations	(302)	(281)	(224)	(198)
Items not yet recognized in pension expense:				
Actuarial loss	1,046	1,145	352	320
Prior service cost (credit)	1	2	(1)	(1)
	1,047	1,147	351	319
Net amount recognized	$ 745	$ 866	$ 127	$ 121

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Pension assets	$ —	$ —	$ 40	$ 32
Current pension liability, included with other accrued liabilities	(7)	(1)	(7)	(6)
Pension benefits	(295)	(280)	(257)	(224)
Accumulated other comprehensive loss	1,047	1,147	351	319
Net amount recognized	$ 745	$ 866	$ 127	$ 121

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Current year actuarial (gain) loss	$ 66	$ 95	$ 87	$ 15
Amortization of actuarial loss	(67)	(74)	(12)	(15)
Settlement	(98)			
	(99)	21	75	—
Translation			(43)	(31)
	$ (99)	$ 21	$ 32	$ (31)

The accumulated benefit obligation for all defined benefit pension plans was $3,126 million and $3,306 million at December 31, 2016 and 2015, respectively.

The components of the net pension expense for the year are as follows:

	U.S.			Non-U.S.		
	2016	2015	2014	2016	2015	2014
Service cost	$ 15	$ 24	$ 22	$ 16	$ 15	$ 23
Interest cost	90	96	105	44	44	69
Expected asset return	(149)	(170)	(176)	(65)	(67)	(86)
Amortization:						
Actuarial loss	67	74	68	13	15	18
Prior service credit						
Net amortization	67	74	68	13	15	18
Net expense	$ 23	$ 24	$ 19	$ 8	$ 7	$ 24

Effective January 1, 2016 the Company amended its salary pension plan in North America to freeze future pension benefits. This action required an obligation remeasurement for the curtailment of benefits, which resulted in a reduction of the Company's pension expense.

In 2016, the Company settled a portion of the U.S. Hourly Pension Plan obligation, which resulted in a settlement charge of $98 million. In 2014, the Company settled a portion of the U.S. Salary Pension Plan pension obligation, which resulted in a settlement charge of $30 million. On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands, resulting in a settlement charge of approximately $35 million. Non-U.S. pension expense excludes $3 million of pension settlement costs that were recorded in restructuring expense in 2014. The table above excludes these charges.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2017:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ 57	$ 16
Prior service cost	1	
Net amortization	$ 58	$ 16

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds the Fair Value of Plan Assets				Accumulated Benefit Obligation Exceeds the Fair Value of Plan Assets			
	U.S.		Non-U.S.		U.S.		Non-U.S.	
	2016	2015	2016	2015	2016	2015	2016	2015
Projected benefit obligations	$ 1,956	$ 2,190	$ 897	$ 876	$ 1,956	$ 2,190	$ 897	$ 876
Accumulated benefit obligation	1,956	2,160	867	850	1,956	2,160	867	850
Fair value of plan assets	1,654	1,909	632	645	1,654	1,909	632	645

The weighted average assumptions used to determine benefit obligations are as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Discount rate	4.17%	4.43%	2.94%	3.68%
Rate of compensation increase	N/A	2.97%	2.90%	2.84%

The weighted average assumptions used to determine net periodic pension costs are as follows:

	U.S.			Non-U.S.		
	2016	2015	2014	2016	2015	2014
Discount rate	4.43%	4.05%	4.81%	3.68%	3.65%	4.14%
Rate of compensation increase	2.97%	2.96%	2.97%	2.84%	2.89%	3.31%
Expected long-term rate of return on assets	7.50%	8.00%	8.00%	7.15%	7.21%	7.23%

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2016, the Company's weighted average expected long-term rate of return on assets was 7.50% for the U.S. plans and 7.15% for the non-U.S. plans. In developing this assumption the Company considered its historical 10-year average return (through December 31, 2016) and evaluated input from its third party pension plan asset consultants, including their review of asset class return expectations.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets for the U.S. plans are maintained in a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

In accordance with the Company's adoption of ASU No. 2015-07 in 2016, certain investments measured at net asset value ("NAV"), as a practical expedient for fair value, have been excluded from the fair value hierarchy. The fair value measurements tables presented below have been amended to conform to the current year presentation under ASU No. 2015-07. See Note 1 for more information.

The Company's U.S. pension plan assets held in the group trust are measured at net asset value in the fair value hierarchy. The total U.S. plan assets amounted to $1,654 million and $1,909 million as of December 31, 2016 and 2015, respectively. In 2016, the U.S. plan assets consisted of approximately 62% equity securities, 31% debt securities, and 7% real estate and other.

In 2016, the non-U.S. plan assets consisted of approximately 41% equity securities, 42% debt securities, and 17% real estate and other. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2016 and 2015:

	2016				2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 24	$ —	$ —	$ 24	$ 30	$ —	$ —	$ 30
Equity securities				—				—
Debt securities	37	2		39	16			16
Real estate			4	4			5	5
Other		37	6	43		24	6	30
Total	$ 61	$ 39	$ 10		$ 46	$ 24	$ 11	
Investments measured at net asset value				$ 901				$ 931
Total non-U.S. assets at fair value				$1,011				$1,012

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2016	2015
Beginning balance	$ 11	$ 5
Net increase (decrease)	(1)	6
Ending balance	$ 10	$ 11

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2016.

In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of $32 million in 2017.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2017	$ 157	$ 53
2018	146	51
2019	145	54
2020	143	57
2021	140	60
2022-2026	656	343

The Company also sponsors several defined contribution plans for all salaried and hourly U.S. employees, and employees in Canada, the U.K., The Netherlands and Australia. Participants' contributions are based on their compensation. The Company matches contributions of participants, up to various limits, in substantially all plans. Company contributions to these plans amounted to $34 million in 2016, $29 million in 2015, and $19 million in 2014.

Postretirement Benefits Other Than Pensions

The Company provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees, and substantially all employees in Canada. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. The Company uses a December 31 measurement date to measure its postretirement benefit obligations.

The changes in the postretirement benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Obligations at beginning of year	$ 97	$ 111	$ 68	$ 81
Change in benefit obligations:				
Service cost			1	1
Interest cost	4	4	3	3
Actuarial (gain) loss, including the effect of changing discount rates	(1)	(10)	9	(1)
Benefit payments	(9)	(8)	(2)	(3)
Foreign currency translation			2	(13)
Other	1			
Net change in benefit obligations	(5)	(14)	13	(13)
Obligations at end of year	$ 92	$ 97	$ 81	$ 68

The funded status of the postretirement benefit plans at year end is as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Postretirement benefit obligations	$ (92)	$ (97)	$ (81)	$ (68)
Items not yet recognized in net postretirement benefit cost:				
Actuarial gain (loss)	(21)	(23)	(6)	3
Prior service credit	30	38		
	9	15	(6)	3
Net amount recognized	$ (83)	$ (82)	$ (87)	$ (65)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (8)	$ (8)	$ (3)	$ (2)
Nonpension postretirement benefits	(84)	(89)	(78)	(66)
Accumulated other comprehensive income (loss)	9	15	(6)	3
Net amount recognized	$ (83)	$ (82)	$ (87)	$ (65)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Current year actuarial (gain) loss	$ (1)	$ (10)	$ 9	$ —
Amortization of actuarial loss	(1)	(2)		
Amortization of prior service credit	8	8		
	$ 6	$ (4)	$ 9	$ —

The components of the net postretirement benefit cost for the year are as follows:

	U.S.			Non-U.S.		
	2016	2015	2014	2016	2015	2014
Service cost	$ —	$ —	$ —	$ 1	$ 1	$ 1
Interest cost	4	4	5	3	3	4
Curtailment gain						
Amortization:						
Actuarial loss	1	2	2			
Prior service credit	(7)	(8)	(8)			
Net amortization	(6)	(6)	(6)	—	—	—
Net postretirement benefit (income) cost	$ (2)	$ (2)	$ (1)	$ 4	$ 4	$ 5

Amounts that are expected to be amortized from accumulated other comprehensive income into net postretirement benefit cost during 2017:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ (1)	$ —
Prior service credit	7	
Net amortization	$ 6	$ —

Amortization included in net postretirement benefit cost is based on the average remaining service of employees. The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	U.S.			Non-U.S.		
	2016	2015	2014	2016	2015	2014
Accumulated postretirement benefit obligation	4.11%	4.35%	4.00%	3.55%	3.80%	3.75%
Net postretirement benefit cost	4.34%	3.99%	4.63%	3.80%	3.75%	4.47%

The weighted average assumed health care cost trend rates at December 31 are as follows:

	U.S.		Non-U.S.	
	2016	2015	2016	2015
Health care cost trend rate assumed for next year	6.40%	6.60%	5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00%	5.00%	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2024	2024	N/A	N/A

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	U.S.		Non-U.S.	
	1-Percentage-Point		1-Percentage-Point	
	Increase	Decrease	Increase	Decrease
Effect on total of service and interest cost	$ —	$ —	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	4	(3)	13	(10)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2017	$ 8	$ 3
2018	8	3
2019	8	3
2020	8	3
2021	7	3
2022 - 2026	30	18

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in 2016, $6 million in 2015 and $6 million in 2014. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

10. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2016	2015	2014
U.S.	$ (27)	$ —	$ 36
Non-U.S.	383	268	271
	$ 356	$ 268	$ 307

Discontinued operations	2016	2015	2014
U.S.	$ —	$ —	$ (19)
Non-U.S.	(7)	(4)	(4)
	$ (7)	$ (4)	$ (23)

The provision (benefit) for income taxes consists of the following:

	2016	2015	2014
Current:			
U.S.	$ —	$ 9	$ 7
Non-U.S.	123	85	103
	123	94	110
Deferred:			
U.S.	3	10	—
Non-U.S.	(7)	2	(18)
	(4)	12	(18)
Total:			
U.S.	3	19	7
Non-U.S.	116	87	85
Total for continuing operations	119	106	92
Total for discontinued operations	—	—	—
	$ 119	$ 106	$ 92

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2016	2015	2014
Tax provision on pretax earnings from continuing operations at statutory U.S. Federal tax rate	$ 124	$ 94	$ 107
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates	(22)	(12)	(22)
Changes in valuation allowance	3	1	(2)
Withholding tax, net	22	18	18
Non-deductible acquisition costs		6	
U.S. tax on intercompany dividends and interest	3	16	1
Tax exempt income	(2)	(3)	(5)
Intraperiod tax allocation	(8)		
Tax law changes	(3)	(3)	
Tax credit	(19)	(14)	(3)
Changes in tax reserves	8	5	(13)
Mexico inflationary adjustments	6	3	
Other items	7	(5)	11
Provision for income taxes	$ 119	$ 106	$ 92

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2016 and 2015 are as follows:

	2016	2015
Deferred tax assets:		
Accrued postretirement benefits	$ 53	$ 51
Asbestos-related liabilities	242	286
Foreign tax credit	413	389
Operating and capital loss carryovers	389	435
Other credit carryovers	34	38
Accrued liabilities	95	82
Pension liability	138	128
Other	74	63
Total deferred tax assets	1,438	1,472
Deferred tax liabilities:		
Property, plant and equipment	131	128
Intangibles and deferred software	119	131
Other	9	25
Total deferred tax liabilities	259	284
Valuation allowance	(1,094)	(1,135)
Net deferred taxes	$ 85	$ 53

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	2016	2015
Other assets	$ 185	$ 177
Deferred taxes	(100)	(124)
Net deferred taxes	$ 85	$ 53

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

At December 31, 2016, before valuation allowance, the Company had unused foreign tax credits of $413 million expiring in 2017 through 2026, research tax credits of $14 million expiring from 2019 to 2036, and alternative minimum tax credits of $18 million which do not expire and which will be available to offset future U.S. Federal income tax. Approximately $151 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $238 million expiring between 2017 and 2036.

In certain jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2016, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.2 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense.

The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014:

	2016	2015	2014
Balance at January 1	$ 74	$ 77	$ 100
Additions and reductions for tax positions of prior years		1	(13)
Additions based on tax positions related to the current year	15	10	10
Reductions due to the lapse of the applicable statute of limitations	(3)	(5)	(8)
Reductions due to settlements	(12)	(1)	(1)
Foreign currency translation		(8)	(11)
Balance at December 31	$ 74	$ 74	$ 77
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 66	$ 67	$ 70
Accrued interest and penalties at December 31	$ 23	$ 25	$ 29
Interest and penalties included in tax expense for the years ended December 31	$ (2)	$ (1)	$ (2)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably possible that the estimated liability could decrease up to $11 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Bolivia, Brazil, China, Canada, Colombia, Ecuador, France, Germany, Indonesia, and Italy. The years under examination range from 2006 through 2014. The Company has received tax assessments in excess of established reserves. The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. During 2016, the Company concluded income tax audits in several jurisdictions, including the Czech Republic, Germany, Italy, and Hungary.

11. Debt

The following table summarizes the long-term debt of the Company at December 31, 2016 and 2015:

	2016	2015
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,395	1,546
Term Loan A (€279 million at December 31, 2016)	282	301
Term Loan B		563
Senior Notes:		
6.75%, due 2020 (€500 million)	523	542
4.875%, due 2021 (€330 million)	345	357
5.00%, due 2022	495	494
5.875%, due 2023	682	680
3.125%, due 2024 (€500 million)	520	
5.375%, due 2025	297	296
6.375%, due 2025	294	293
Senior Debentures:		
7.80%, due 2018	250	250
Capital leases	57	62
Other	26	29
Total long-term debt	5,166	5,413
Less amounts due within one year	33	68
Long-term debt	$ 5,133	$ 5,345

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on February 3, 2016 (the "Amended Agreement"). In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 19), the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Amended Agreement and (ii) a $575 million term loan B facility, which was subsequently repaid in full in November 2016 as described below.

At December 31, 2016, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,395 million net of debt issuance costs), and a €279 million term loan A facility ($282 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2016, the Company had unused credit of $884 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2016 was 2.39%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of (i) 4.5x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and (ii) 4.0x for the fourth fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2016, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting the debt discount and debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2016 and 2015 is as follows:

	2016	2015
Balance (included in short-term loans)	$ 152	$ 158
Weighted average interest rate	0.74%	1.21%

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2021 are as follows: 2017, $33 million; 2018, $287 million; 2019, $101 million; 2020, $2,074 million; and 2021, $354 million.

Fair values at December 31, 2016, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 526	$ 120.63	$ 635
4.875%, due 2021 (€330 million)	347	114.00	396
5.00%, due 2022	500	103.49	517
5.875%, due 2023	700	105.37	738
3.125%, due 2024 (€500 million)	526	100.01	526
6.375%, due 2025	300	106.28	319
5.375%, due 2025	300	101.17	304
Senior Debentures:			
7.80%, due 2018	250	106.26	266

12. Contingencies

Asbestos

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company sold its insulation business unit at the end of April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory and, in some cases, punitive damages in various amounts (herein referred to as "asbestos claims").

The following table shows the approximate number of plaintiffs and claimants who had asbestos claims pending against the Company at the beginning of each listed year, the number of claims disposed of during that year, the year's filings and the claims pending at the end of each listed year (eliminating duplicate filings):

	2016	2015	2014
Pending at beginning of year	2,080	2,260	2,620
Disposed	1,750	1,460	1,830
Filed	1,070	1,280	1,470
Pending at end of year	1,400	2,080	2,260

Based on an analysis of the lawsuits pending as of December 31, 2016, approximately 88% of plaintiffs either do not specify the monetary damages sought, or in the case of court filings, claim an amount sufficient to invoke the jurisdictional minimum of the trial court. Approximately 9% of plaintiffs specifically plead damages above the jurisdictional minimum up to, and including, $15 million or less, and 3% of plaintiffs specifically plead damages greater than $15 million but less than or equal to $100 million.

As indicated by the foregoing summary, current pleading practice permits considerable variation in the assertion of monetary damages. The Company's experience resolving hundreds of thousands of asbestos claims and lawsuits over an extended period demonstrates that the monetary relief alleged in a complaint bears little relevance to a claim's merits or disposition value. Rather, the amount potentially recoverable is determined by such factors as the type and severity of the plaintiff's asbestos disease, the plaintiff's medical history and exposure to other disease-causing agents, the product identification evidence against the Company and other co-defendants, the defenses available to the Company and other co-defendants, the specific jurisdiction in which the claim is made, and the plaintiff's firm representing the claimant.

In addition to the pending claims set forth above, the Company has claims-handling agreements in place with many plaintiffs' counsel throughout the country. These agreements require evaluation and negotiation regarding whether particular claimants qualify under the criteria established by such agreements. The criteria for such claims include verification of a compensable illness and a reasonable probability of exposure to a product manufactured by the Company's former business unit during its manufacturing period ending in 1958.

The Company has also been a defendant in other asbestos-related lawsuits or claims involving maritime workers, medical monitoring claimants, co-defendants and property damage claimants. Based upon its past experience, the Company believes that these categories of lawsuits and claims will not involve any material liability and they are not included in the above description of pending matters or in the following description of disposed matters.

Since receiving its first asbestos claim, the Company as of December 31, 2016, has disposed of the asbestos claims of approximately 398,000 plaintiffs and claimants at an average indemnity payment per claim of approximately $9,000. The Company's asbestos indemnity payments have varied on a per claim basis, and are expected to continue to vary considerably over time. Asbestos-related cash payments for 2016, 2015 and 2014 were $125 million, $138 million, and $148 million, respectively. The Company's cash payments per claim disposed (inclusive of legal costs) were approximately $71,000, $95,000 and $81,000 for the years ended December 31, 2016, 2015 and 2014, respectively.

As discussed above, the Company's objective is to achieve, where possible, resolution of asbestos claims pursuant to claims-handling agreements. Failure of claimants to meet certain medical and product exposure criteria in the Company's administrative claims handling agreements has generally reduced the number of claims that would otherwise have been received by the Company in the tort system. In addition, certain court orders and legislative acts have reduced or eliminated the number of claims that the Company otherwise would have received by the Company in the tort system. These developments generally have had the effect of increasing the Company's per-claim average indemnity payment over time.

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2016, before insurance recoveries, for its asbestos-related liability. The Company's estimates of its liability have been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

The Company continues to monitor trends that may affect its ultimate liability and analyze the developments and variables likely to affect the resolution of pending and future asbestos claims against the Company. The material components of the Company's total accrued liability are determined by the Company in connection with its annual comprehensive legal review and consist of the following estimates, to the extent it is probable that such liabilities have been incurred and can be reasonably estimated: (i) the liability for asbestos claims already asserted against the Company; (ii) the liability for asbestos claims not yet asserted against the Company; and (iii) the legal defense costs estimated to be incurred in connection with the claims already asserted and those claims the Company believes will be asserted.

As noted above, the Company conducts a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its current annual comprehensive legal review, the Company provides historical claims filing data to a third party with expertise in determining the impact of disease incidence and mortality on future filing trends to develop information to assist the Company in estimating the total number of future claims to be filed. The Company uses this estimate of total future claims, along with an estimation of disposition costs and related legal costs, as inputs to develop its best estimate of its total probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

For the years ended December 31, 2016 and 2015, the Company concluded that accruals in the amounts of $692 million and $817 million, respectively, were required. These amounts have not been discounted for the time value of money. The Company's comprehensive legal reviews resulted in charges of $0, $16 million and $46 million for the years ended December 31, 2016, 2015 and 2014, respectively.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $692 million as of December 31, 2016. The Company estimates that reasonably possible losses could be as high as $825 million. This estimate of additional reasonably possible loss reflects a legal judgment about the number and cost of potential future claims and legal costs. The Company believes this estimate is consistent with the level of variability it has experienced when comparing actual results to recent near-term projections. However, it is also possible that the ultimate asbestos-related liability could be above this estimate.

The Company expects a significant majority of the total number of claims to be received in the next ten years. This timeframe appropriately reflects the mortality of current and expected claimants in light of the Company's sale of its insulation business unit in 1958.

As noted above, the Company's asbestos-related liability is based on a projection of new claims that will eventually be filed against the Company and the estimated average disposition cost of these claims and related legal costs. Changes in these projections, and estimates, as well as changes in the significant assumptions noted above, have the potential to significantly impact the estimation of the Company's asbestos-related liability.

Other Matters

The Company's joint venture in China had been involved in litigation with its partner regarding whether the joint venture should be dissolved. Following an ownership change in 2016 with respect to the joint venture partner, this litigation has been withdrawn.

On July 5, 2016, the Company learned that the Enforcement Division of the SEC is conducting an investigation into certain accounting and control matters pertaining to the Company's determination of its asbestos-related liabilities. On May 13, 2016, the Company restated its consolidated financial statements for the years ended December 31, 2015, 2014 and 2013 in order to correct an error related to the Company's method for estimating its future asbestos-related liabilities. The Company is cooperating with the SEC's investigation. At this time, the Company is unable to predict the outcome of this matter or provide meaningful quantification of how the final resolution of this matter may impact its future consolidated financial statements, results of operations, or cash flows.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Income (Loss)
Balance on January 1, 2015	$ (55)	$ (11)	$ (1,428)	$ (1,494)
Change before reclassifications	(513)	(4)	(58)	(575)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	83(b)	82
Translation effect			(31)	(31)
Tax effect		(1)	2	1
Other comprehensive income (loss) attributable to the Company	(513)	(6)	(4)	(523)
Balance on December 31, 2015	(568)	(17)	(1,432)	(2,017)
Change before reclassifications	(220)	7	(2)	(215)
Amounts reclassified from accumulated other comprehensive income		6(a)	72(b)	78
Translation effect			(25)	(25)
Tax effect			15	15
Intraperiod tax allocation			(8)	(8)
Other comprehensive income (loss) attributable to the Company	(220)	13	52	(155)
Balance on December 31, 2016	$ (788)	$ (4)	$ (1,380)	$ (2,172)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Stock Options and Other Stock Based Compensation

The Company has various nonqualified plans approved by share owners under which it has granted stock options, restricted shares and performance vested restricted share units. At December 31, 2016, there were 5,081,000 shares available for grants under these plans. Total compensation cost for all grants of shares and units under these plans was $15 million, $15 million and $21 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Stock Options

In general, subject to change in control, options become exercisable 25% per year beginning on the first anniversary of grant. No options may be exercised in whole or in part during the first year after the date granted. In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Stock option information at December 31, 2016 and for the year then ended is as follows:

	Number of Shares (thousands)	Weighted Average Exercise Price (per share)	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at January 1, 2016	2,621	$ 23.64		
Granted	1,098	15.10		
Exercised	(504)	10.13		
Forfeited or expired	(119)	21.24		
Options outstanding at December 31, 2016	3,096	22.91	4.2	$ 3
Options vested or expected to vest at December 31, 2016	3,096	$ 22.91	2.3	$ 3
Options exercisable at December 31, 2016	1,342	$ 27.71	4.2	$ —

Certain additional information related to stock options is as follows for the periods indicated:

	2016	2015	2014
Weighted average grant-date fair value of options granted (per share)	$ 4.98	$ 7.79	$ 13.17
Aggregate intrinsic value of options exercised	$ 2	$ —	$ 3
Aggregate cash received from options exercised	$ 5	$ 1	$ 5

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model using the following weighted average assumptions:

	2016	2015	2014
Expected life of options (years)	5.20	5.00	5.00
Expected stock price volatility	32.8%	34.5%	43.0%
Risk-free interest rate	1.5%	1.7%	1.6%
Expected dividend yield	0.0%	0.0%	0.0%

The expected life of options is determined from historical exercise and termination data. The expected stock price volatility is determined by reference to historical prices over a period equal to the expected life.

Restricted Shares and Restricted Share Units

Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit as units vest. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units, is amortized over the vesting periods which range from one to four years.

The activity of restricted shares and restricted share units is as follows:

	Number of Restricted Shares (thousands)	Weighted Average Grant-Date Fair Value (per share)
Nonvested at January 1, 2016	672	$ 23.66
Granted	389	15.70
Vested	(215)	25.88
Forfeited	(10)	21.11
Nonvested at December 31, 2016	836	19.42
Awards granted during 2015		$ 22.69
Awards granted during 2014		$ 33.36

	2016	2015	2014
Total fair value of shares vested	$ 6	$ 4	$ 5

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of the Company's common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of the Company's Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of the Company's common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

Performance vested restricted share unit activity is as follows:

	Number of Performance Vested Restricted Shares Units (thousands)	Weighted Average Grant-Date Fair Value (per unit)
Nonvested at January 1, 2016	933	$ 26.80
Granted	726	15.10
Vested	(158)	26.10
Forfeited/Cancelled	(146)	25.41
Nonvested at December 31, 2016	1,355	20.76
Awards granted during 2015		$ 23.63
Awards granted during 2014		$ 33.41

Approximately 158,000 shares were issued in 2016 with a fair value at issuance date of $4 million related to performance vested restricted share units.

As of December 31, 2016, there was $17 million of total unrecognized compensation cost related to all unvested stock options, restricted shares, restricted share units and performance vested restricted share units. That cost is expected to be recognized over a weighted average period of approximately two years.

15. Other Expense, net

Other expense, net for the years ended December 31, 2016, 2015 and 2014 included the following:

	2016	2015	2014
Restructuring, asset impairment and other charges	$ 104	$ 75	$ 68
Intangible amortization expense	39	21	1
Impairment of equity investment	25		
Charge for asbestos related costs		16	46
Gain on China land compensation	(71)		
Royalty income	(13)	(12)	(12)
Strategic transaction costs		23	
Acquisition-related fair value intangible adjustments		10	
Non-income tax charge			69
Foreign currency exchange loss (gain)	6	(10)	(2)
Other expense (income)	(14)	(12)	24
	$ 76	$ 111	$ 194

In 2016, the Company evaluated the future estimated earnings and cash flow of an equity investment and determined that it was other-than-temporarily impaired. As such, the Company recorded an impairment charge of $25 million to reduce its carrying value down to its estimated fair value. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

In 2014, the Company recorded a charge of $69 million resulting from a non-income tax assessment from a foreign tax authority.

16. Operating Leases

Rent expense attributable to all warehouse, office buildings and equipment operating leases was $80 million in 2016, $72 million in 2015, and $63 million in 2014. Minimum future rentals under operating leases are as follows: 2017, $65 million; 2018, $47 million; 2019, $32 million; 2020, $23 million; 2021, $14 million; and 2022 and thereafter, $24 million.

17. Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share:

	2016	2015	2014
Numerator:			
Net earnings attributable to the Company	$ 209	$ 135	$ 164
Denominator (in thousands):			
Denominator for basic earnings per share-weighted average shares outstanding	161,857	161,169	164,720
Effect of dilutive securities:			
Stock options and other	968	966	1,327
Denominator for diluted earnings per share-adjusted weighted average shares outstanding	162,825	162,135	166,047
Basic earnings per share:			
Earnings from continuing operations	$ 1.33	$ 0.86	$ 1.14
Loss from discontinued operations	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.29	$ 0.83	$ 1.00
Diluted earnings per share:			
Earnings from continuing operations	$ 1.32	$ 0.85	$ 1.13
Loss from discontinued operations	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.28	$ 0.82	$ 0.99

Options to purchase 2,770,458, 1,937,315 and 1,143,933 weighted average shares of common stock which were outstanding during 2016, 2015 and 2014, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares.

18. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2016	2015	2014
Decrease (increase) in current assets:			
Receivables	$ (32)	$ (14)	$ 59
Inventories	16	(13)	(26)
Prepaid expenses and other	145	(4)	(1)
Increase (decrease) in current liabilities:			
Accounts payable	(58)	100	103
Accrued liabilities	(31)	21	12
Salaries and wages	32	12	(3)
U.S. and foreign income taxes	18	(14)	(27)
	$ 90	$ 88	$ 117

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2016 and 2015, the amount of receivables sold by the Company was $318 million and $317 million, respectively. Any continuing involvement with the sold receivables is immaterial.

	2016	2015	2014
Interest paid in cash	$ 261	$ 227	$ 199
Income taxes paid in cash (all non-U.S)	99	101	101

Cash interest for the years ended December 31, 2016, 2015 and 2014 includes $9 million, $32 million and $9 million of note repurchase premiums, respectively.

19. Business Combinations

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion in cash, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $608 million of incremental net sales and $122 million of incremental segment operating profit in the year ended December 31, 2016. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from a senior notes offering, cash on hand and the incremental term loan facilities (see Note 11).

The total purchase price was allocated to the tangible and identifiable intangible assets and liabilities based upon their respective fair values. The purchase agreement contained customary provisions for working capital adjustments, which the Company resolved with the seller in the first quarter of 2016. The Company completed the purchase price allocation process in the third quarter of 2016. The following table summarizes the fair value

of the assets and liabilities assumed on September 1, 2015 and subsequent adjustments identified through the purchase price allocation process and recorded through the measurement period:

	September 1, 2015	Measurement Period Adjustments	September 30, 2016
Cash	$ 17	$ —	$ 17
Other current assets	344	(10)	334
Goodwill	1,073	(236)	837
Customer list intangibles	406	202	608
Net property, plant and equipment	597	48	645
Total assets	2,437	4	2,441
Current liabilities	93	(7)	86
Long-term debt	11		11
Long-term liabilities	36	11	47
Net assets acquired	$ 2,297	$ —	$ 2,297

The fair value of the tangible assets was estimated utilizing income and market approaches, considering remaining useful life. The customer list intangible asset includes the Company's established relationships with its customers and the ability of these customers to generate future economic profits for the Company. The value assigned to customer list intangibles is based on the present value of future earnings attributable to the asset group after recognition of required returns to other contributory assets.

Recognized goodwill is attributable to the assembled workforce, expected synergies and other intangible assets that do not qualify for separate recognition. The Vitro Acquisition goodwill is not deductible for tax purposes.

The balance sheet adjustments identified above did not result in any significant adjustments to the periods' income statements.

20. Pro Forma Information – Vitro Acquisition

Had the Vitro Acquisition, described in Note 19 and the related financing described in Note 11, occurred at the beginning of each respective period, unaudited pro forma consolidated net sales, earnings from continuing operations and earnings from continuing operations per share of common stock (diluted) would have been as follows:

	Year Ending December 31, 2015			
	As Reported	Acquisition Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 139	$ 79	$ (46)	$ 172
Diluted earnings per share from continuing operations	$ 0.85			$ 1.06

21. Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") ruled that a subsidiary of the Company is free to pursue the enforcement of a prior arbitration award against Venezuela. That award amounts to more than $485 million after including interest from the date of the expropriation by Venezuela (October 26, 2010). Venezuela's application to annul the award is still pending, although the annulment proceedings were suspended in October 2016 because Venezuela has not paid its fees owed to ICSID. If the proceeding is stayed for non-payment for a consecutive period in excess of six months, ICSID's Secretary General could move that the committee discontinue the annulment proceeding altogether. The Company intends to take appropriate steps to vigorously enforce and collect the award, which is enforceable in approximately 150 member states that are party to the ICSID Convention. However, even with the lifting of the stay of enforcement, the Company recognizes that the collection of the award may present significant practical challenges. Because the award has yet to be satisfied and the annulment proceeding is pending, the Company is unable at this stage to reasonably predict the efforts that will be necessary to successfully enforce collection of the award, the amount of the award or the timing of any such collection efforts. Therefore, the Company has not recognized this award in its financial statements.

A separate arbitration is pending with ICSID to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants.

The loss from discontinued operations of $7 million and $4 million, for the years ended December 31, 2016 and 2015, respectively, relates to ongoing costs for the Venezuelan expropriation.

The loss from discontinued operations of $23 million for the year ended December 31, 2014 included a settlement of a dispute with a purchaser of a previously disposed business, as well as ongoing costs related to the Venezuelan expropriation.

22. Financial Information for Subsidiary Guarantors and Non-Guarantors

The following presents condensed consolidating financial information for the Company, segregating: (1) Owens-Illinois, Inc., the issuer of senior debentures (the "Parent"); (2) the two subsidiaries which have guaranteed the senior debentures on a subordinated basis (the "Guarantor Subsidiaries"); and (3) all other subsidiaries (the "Non-Guarantor Subsidiaries"). The Guarantor Subsidiaries are 100% owned direct and indirect subsidiaries of the Company and their guarantees are full, unconditional and joint and several. They have no operations and function only as intermediate holding companies.

Certain reclassifications have been made to conform all of the financial information to the financial presentation on a consolidated basis. The principal eliminations relate to investments in subsidiaries and intercompany balances and transactions.

	December 31, 2016				
Balance Sheet	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Current assets:					
Cash and cash equivalents	$ —	$ —	$ 492	$ —	$ 492
Trade receivables, net			580		580
Inventories			983		983
Prepaid expenses and other current assets			199		199
Total current assets	—	—	2,254	—	2,254
Investments in and advances to subsidiaries	1,198	946		(2,144)	—
Property, plant and equipment, net			2,880		2,880
Intangibles			464		464
Goodwill			2,462		2,462
Other assets			1,075		1,075
Total assets	$ 1,198	$ 946	$ 9,135	$ (2,144)	$ 9,135
Current liabilities :					
Short-term loans and long-term debt due within one year	$ —	$ —	$ 195	$ —	$ 195
Current portion of asbestos liability	115				115
Accounts payable			1,135		1,135
Other liabilities	2		615	(2)	615
Total current liabilities	117	—	1,945	(2)	2,060
Long-term debt	250		5,133	(250)	5,133
Asbestos-related liabilities	577				577
Other long-term liabilities			1,002		1,002
Share owners' equity	254	946	946	(1,892)	254
Noncontrolling interests			109		109
Total liabilities and share owners' equity	$ 1,198	$ 946	$ 9,135	$ (2,144)	$ 9,135

	December 31, 2015				
Balance Sheet	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Current assets:					
Cash and cash equivalents	$ —	$ —	$ 399	$ —	$ 399
Trade receivables, net			562		562
Inventories			1,007		1,007
Prepaid expenses and other current assets			366		366
Total current assets	—	—	2,334	—	2,334
Investments in and advances to subsidiaries	1,240	988		(2,228)	—
Property, plant and equipment, net			2,961		2,961
Intangibles			597		597
Goodwill			2,489		2,489
Other assets			1,040		1,040
Total assets	$ 1,240	$ 988	$ 9,421	$ (2,228)	$ 9,421
Current liabilities :					
Short-term loans and long-term debt due within one year	$ —	$ —	$ 228	$ —	$ 228
Current portion of asbestos liability	130				130
Accounts payable			1,212		1,212
Other liabilities	2		552	(2)	552
Total current liabilities	132	—	1,992	(2)	2,122
Long-term debt	250		5,345	(250)	5,345
Asbestos-related liabilities	687				687
Other long-term liabilities			988		988
Share owners' equity	171	988	988	(1,976)	171
Noncontrolling interests			108		108
Total liabilities and share owners' equity	$ 1,240	$ 988	$ 9,421	$ (2,228)	$ 9,421

	Year ended December 31, 2016				
Results of Operations	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net sales	$	$	$ 6,702	$	$ 6,702
Cost of goods sold			(5,490)		(5,490)
Gross profit			1,212		1,212
Selling and administrative expense			(503)		(503)
Research, development and engineering expense			(65)		(65)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(252)		(272)
Equity earnings from subsidiaries	209	209	—	(418)	—
Other equity earnings			60		60
Other expense, net			(76)		(76)
Earnings before income taxes	209	209	356	(418)	356
Provision for income taxes			(119)		(119)
Earnings from continuing operations	209	209	237	(418)	237
Loss from discontinued operations			(7)		(7)
Net earnings	209	209	230	(418)	230
Net earnings attributable to noncontrolling interests			(21)		(21)
Net earnings attributable to the Company	$ 209	$ 209	$ 209	$ (418)	$ 209

	Year ended December 31, 2016				
Comprehensive Income	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net earnings	$ 209	$ 209	$ 230	$ (418)	$ 230
Other comprehensive income (loss)	(176)	(176)	(159)	352	(159)
Total comprehensive income (loss)	33	33	71	(66)	71
Comprehensive income attributable to noncontrolling interests			(17)		(17)
Comprehensive income (loss) attributable to the Company	$ 33	$ 33	$ 54	$ (66)	$ 54

	Year ended December 31, 2015				
Results of Operations	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net sales	$ —	$ —	$ 6,156	$ —	$ 6,156
Cost of goods sold			(5,046)		(5,046)
Gross profit			1,110		1,110
Selling and administrative expense			(476)		(476)
Research, development and engineering expense			(64)		(64)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(231)		(251)
Equity earnings from subsidiaries	151	151		(302)	—
Other equity earnings			60		60
Other expense, net	(16)		(95)		(111)
Earnings before income taxes	135	151	284	(302)	268
Provision for income taxes			(106)		(106)
Earnings from continuing operations	135	151	178	(302)	162
Loss from discontinued operations			(4)		(4)
Net earnings	135	151	174	(302)	158
Net earnings attributable to noncontrolling interests			(23)		(23)
Net earnings attributable to the Company	$ 135	$ 151	$ 151	$ (302)	$ 135

	Year ended December 31, 2015				
Comprehensive Income	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net earnings	$ 135	$ 151	$ 174	$ (302)	$ 158
Other comprehensive income (loss)	(546)	(546)	(539)	1,092	(539)
Total comprehensive income (loss)	(411)	(395)	(365)	790	(381)
Comprehensive income attributable to noncontrolling interests			(7)		(7)
Comprehensive income (loss) attributable to the Company	$ (411)	$ (395)	$ (372)	$ 790	$ (388)

	Year ended December 31, 2014				
Results of Operations	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net sales	$ —	$ —	$ 6,784	$ —	$ 6,784
Cost of goods sold			(5,531)		(5,531)
Gross profit			1,253		1,253
Selling and administrative expense			(523)		(523)
Research, development and engineering expense			(63)		(63)
Net intercompany interest	20		(20)		—
Interest expense, net	(20)		(210)		(230)
Equity earnings from subsidiaries	210	210		(420)	—
Other equity earnings			64		64
Other expense, net	(46)		(148)		(194)
Earnings before income taxes	164	210	353	(420)	307
Provision for income taxes			(92)		(92)
Earnings from continuing operations	164	210	261	(420)	215
Loss from discontinued operations			(23)		(23)
Net earnings	164	210	238	(420)	192
Net earnings attributable to noncontrolling interests			(28)		(28)
Net earnings attributable to the Company	$ 164	$ 210	$ 210	$ (420)	$ 164

	Year ended December 31, 2014				
Comprehensive Income	**Parent**	**Guarantor Subsidiaries**	**Non-Guarantor Subsidiaries**	**Eliminations**	**Consolidated**
Net earnings	$ 164	$ 210	$ 238	$ (420)	$ 192
Other comprehensive income (loss)	(401)	(401)	(394)	802	(394)
Total comprehensive income (loss)	(237)	(191)	(156)	382	(202)
Comprehensive income attributable to noncontrolling interests			(7)		(7)
Comprehensive income (loss) attributable to the Company	$ (237)	$ (191)	$ (163)	$ 382	$ (209)

	Year ended December 31, 2016				
Cash Flows	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash provided by (utilized in) operating activities	$ (125)	$ —	$ 876	$ —	$ 751
Cash utilized in investing activities			(417)		(417)
Cash provided by (utilized in) financing activities	125		(353)		(228)
Effect of exchange rate change on cash			(13)		(13)
Net change in cash	—	—	93	—	93
Cash at beginning of period			399		399
Cash at end of period	$ —	$ —	$ 492	$ —	$ 492

	Year ended December 31, 2015				
Cash Flows	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash provided by (utilized in) operating activities	$ (138)	$ —	$ 746	$ —	$ 608
Cash utilized in investing activities			(2,748)		(2,748)
Cash provided by financing activities	138		1,919		2,057
Effect of exchange rate change on cash			(30)		(30)
Net change in cash	—	—	(113)	—	(113)
Cash at beginning of period			512		512
Cash at end of period	$ —	$ —	$ 399	$ —	$ 399

	Year ended December 31, 2014				
Cash Flows	Parent	Guarantor Subsidiaries	Non-Guarantor Subsidiaries	Eliminations	Consolidated
Cash provided by (utilized in) operating activities	$ (148)	$ —	$ 823	$ —	$ 675
Cash utilized in investing activities			(455)		(455)
Cash provided by (utilized in) financing activities	148		(218)		(70)
Effect of exchange rate change on cash			(21)		(21)
Net change in cash	—	—	129	—	129
Cash at beginning of period			383		383
Cash at end of period	$ —	$ —	$ 512	$ —	$ 512

Selected Quarterly Financial Data (unaudited) The following tables present selected financial data by quarter for the years ended December 31, 2016 and 2015:

	2016				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$ 1,588	$ 1,760	$ 1,712	$ 1,642	$ 6,702
Gross profit	$ 319	$ 342	$ 336	$ 215	$ 1,212
Earnings (loss) from continuing operations attributable to the Company (a)	$ 68	$ 107	$ 111	$ (70)	$ 216
Loss from discontinued operations attributable to the Company	(1)	(2)	(3)	(1)	(7)
Net earnings (loss) attributable to the Company	$ 67	$ 105	$ 108	$ (71)	$ 209
Earnings per share of common stock (a) (b):					
Basic:					
Earnings (loss) from continuing operations	$ 0.42	$ 0.66	$ 0.68	$ (0.43)	$ 1.33
Loss from discontinued operations	(0.01)	(0.01)	(0.02)	(0.01)	(0.04)
Net earnings (loss)	$ 0.41	$ 0.65	$ 0.66	$ (0.44)	$ 1.29
Diluted:					
Earnings (loss) from continuing operations	$ 0.42	$ 0.65	$ 0.68	$ (0.43)	$ 1.32
Loss from discontinued operations	(0.01)	(0.01)	(0.02)	(0.01)	(0.04)
Net earnings (loss)	$ 0.41	$ 0.64	$ 0.66	$ (0.44)	$ 1.28

(a) Amounts management considers not representative of ongoing operations include:

For the first quarter, included net charges totaling $10 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.06.

For the fourth quarter, included net charges totaling $150 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.93.

(b) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

	2015				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$ 1,421	$ 1,543	$ 1,566	$ 1,626	$ 6,156
Gross profit	$ 268	$ 274	$ 276	$ 292	$ 1,110
Earnings from continuing operations attributable to the Company (c)	$ 71	$ 42	$ 18	$ 8	$ 139
Loss from discontinued operations attributable to the Company	—	(2)	(1)	(1)	(4)
Net earnings attributable to the Company	$ 71	$ 40	$ 17	$ 7	$ 135
Earnings per share of common stock (c) (d)					
Basic:					
Earnings from continuing operations	$ 0.44	$ 0.26	$ 0.11	$ 0.05	$ 0.86
Loss from discontinued operations	—	(0.01)	(0.01)	(0.01)	(0.03)
Net earnings	$ 0.44	$ 0.25	$ 0.10	$ 0.04	$ 0.83
Diluted:					
Earnings from continuing operations	$ 0.44	$ 0.26	$ 0.11	$ 0.04	$ 0.85
Loss from discontinued operations	—	(0.01)	(0.01)	(0.01)	(0.03)
Net earnings	$ 0.44	$ 0.25	$ 0.10	$ 0.03	$ 0.82

(c) Amounts management considers not representative of ongoing operations include:

For the second quarter, included net charges totaling $55 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.34.

For the third quarter, included net charges totaling $75 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.46.

For the fourth quarter, included net charges totaling $56 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.35.

(d) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Also, the Company has investments in certain unconsolidated entities. As the Company does not control or manage these entities, its disclosure controls and procedures with respect to such entities are necessarily substantially more limited than those maintained with respect to its consolidated subsidiaries.

As required by Rule 13a-15(b) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2016.

Management's Report on Internal Control over Financial Reporting

The management of Owens-Illinois, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. In making this assessment management used the criteria for effective internal control over financial reporting as described in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO framework) in 2013.

Based on this assessment, using the criteria above, management concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2016.

The Company's independent registered public accounting firm, Ernst & Young LLP, that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting which is included below.

Remediation of Previously Disclosed Material Weakness

In 2016, the Company completed several changes to its internal control over financial reporting and remediated the previously reported material weakness. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis. In its Amendment No. 1 to Annual Report on Form 10-K/A for the year ended December 31, 2015, management reported a material weakness in the Company's design of its control activities for the estimation of liabilities related to probable losses for unasserted asbestos claims. Specifically, the Company did not have sufficient controls in place to provide reasonable assurance that a material error would be prevented or detected related to the application of ASC 450 to the estimation of probable losses from unasserted asbestos claims.

The following changes were made to the Company's internal control over financial reporting:

1. Established new policies, procedures and controls for the review, approval and application of generally accepted accounting principles related to, and disclosure with respect to, unasserted asbestos claims.

2. As a result of the new controls discussed above, the Company made certain process changes regarding the estimation of its probable asbestos-related liability. This included implementing a new model with actuarial inputs to estimate the total number of future asbestos-related claims to be filed against the Company.

3. The Company uses the estimate of total future claims, along with an estimation of related disposition costs and legal costs, as inputs to develop its best estimate of its probable asbestos-related liability.

The Company has completed the redesign of its controls related to estimating liabilities of probable losses for unasserted asbestos claims. The Company has assessed both the design and operation of the redesigned controls and found them to be both designed and operating effectively. The Company has determined that the remediation activities implemented are sufficient to allow it to conclude that the previously disclosed material weakness related to estimating liabilities of probable losses for unasserted asbestos claims has been remediated as of December 31, 2016.

Changes in Internal Control over Financial Reporting

As required by Rule 13a-15(d) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of any change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Other than as described above in "Remediation of Previously Disclosed Material Weakness," there were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

We have audited Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). Owens-Illinois, Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Owens-Illinois, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2016 and 2015, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2016 and our report dated February 10, 2017 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2017

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to non-officer directors and corporate governance is included in the 2017 Proxy Statement in the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" and such information is incorporated herein by reference.

Information with respect to executive officers is included herein in Item 1.

Code of Business Conduct and Ethics

The Company's Global Code of Business Conduct and Ethics, which is applicable to all directors, officers and employees of the Company, including the principal executive officer, the principal financial officer and the principal accounting officer, is available on the Investor Relations section of the Company's web site (www.o-i.com). A copy of the Code is also available in print to share owners upon request, addressed to the Corporate Secretary at Owens-Illinois, Inc., One Michael Owens Way, Perrysburg, Ohio 43551. The Company intends to post amendments to or waivers from its Code of Business Conduct and Ethics (to the extent applicable to the Company's directors, executive officers or principal financial officers) at this location on its web site.

ITEM 11. EXECUTIVE COMPENSATION

The section entitled "Executive Compensation," exclusive of the subsection entitled "Board Compensation Committee Report," which is included in the 2017 Proxy Statement, is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The section entitled "Security Ownership of Certain Beneficial Owners and Management" which is included in the 2017 Proxy Statement is incorporated herein by reference.

The following table summarizes securities authorized for issuance under equity compensation plans as of December 31, 2016.

	Equity Compensation Plan Information		
	(a)	(b)	(c)
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1) (thousands)	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (thousands)
Equity compensation plans approved by security holders	3,096	$ 22.91	5,081
Equity compensation plans not approved by security holders	—	—	—
Total	3,096	$ 22.91	5,081

(1) Represents options to purchase shares of the Company's common stock. There are no outstanding warrants or rights.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The section entitled "Director and Executive Compensation and Other Information," exclusive of the subsection entitled "Board Compensation Committee Report on Executive Compensation," which is included in the 2017 Proxy Statement, is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services is included in the 2017 Proxy Statement in the section entitled "Independent Registered Public Accounting Firm" and such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Index of Financial Statements and Financial Statement Schedules Covered by Report of Independent Auditors.

(a) DOCUMENTS FILED AS PART OF THIS REPORT

1. See Index to Consolidated Financial Statements on page 47 hereof.

2. See Quarterly Results (Unaudited) beginning on page 100 hereof.

3. Financial Statement Schedule:

	10-K Page
For the years ended December 31, 2016, 2015, and 2014:	
II—Valuation and Qualifying Accounts (Consolidated).	S-1
All other schedules have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule.	
(ii) Separate Financial Statements of Affiliates Whose Securities Are Pledged As Collateral. . . .	114

4. See Exhibit Index beginning on page 109 hereof.

EXHIBIT INDEX

S-K Item 601 No.		Document
2.1	—	Stock Purchase Agreement, dated as of May 12, 2015, by and between Owens-Brockway Glass Container Inc. and Vitro, S.A.B. de C.V., Distribuidora Alcali, S.A. de C.V. and Vitro Packaging, LLC (filed as Exhibit 2.1 to the Owens-Illinois, Inc.'s Form 8-K/A filed on May 13, 2015, File No. 1-9576, and incorporated herein by reference).
3.1	—	Third Restated Certificate of Incorporation of Owens-Illinois, Inc. (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2012, File No. 1-9576, and incorporated herein by reference).
3.2	—	Third Amended and Restated Bylaws of Owens-Illinois, Inc., (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 8-K dated April 23, 2009, File No. 1-9576, and incorporated herein by reference).
4.1	—	Indenture dated as of May 20, 1998, between Owens-Illinois, Inc. and The Bank of New York, as Trustee (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.2	—	Officers' Certificate, dated May 20, 1998, establishing the terms of the 7.80% Senior Notes due 2018; including the Form of 7.80% Senior Note due 2018 (filed as Exhibits 4.5 and 4.9, respectively, to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.3	—	Supplemental Indenture, dated as of June 26, 2001 among Owens-Illinois, Inc., Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc. and The Bank of New York, as Trustee (May 20, 1998 Indenture) (filed as Exhibit 4.1 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2001, File No. 1-9576, and incorporated herein by reference).
4.4	—	Indenture, dated as of September 15, 2010, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar, Luxembourg paying agent and transfer agent, including the form of the Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated September 10, 2010, File No. 33-13061, and incorporated herein by reference).
4.5	—	Indenture dated as of March 22, 2013, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar and Luxembourg transfer agent, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated March 22, 2013, File No. 33-13061, and incorporated herein by reference).
4.6	—	Indenture dated as of December 3, 2014, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2022 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated December 3, 2014, File No. 33-13061, and incorporated herein by reference).
4.7	—	Indenture dated as of August 24, 2015, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2023 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated August 24, 2015, File No. 33-13061, and incorporated herein by reference).

S-K Item 601 No.		Document
4.8	—	Indenture, dated as of November 3, 2016, by and among OI European Group B.V., the guarantors party thereto, Deutsche Trustee Company Limited, as trustee, Deutsche Bank AG, London Branch, as principal paying agent and transfer agent, and Deutsche Bank Luxembourg S. A., as Luxembourg transfer agent and registrar, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated November 3, 2016, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
4.9	—	Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated as of April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.10	—	Amendment No. 1, dated July 24, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.2 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2015, File No. 1-9576, and incorporated herein by reference).
4.11	—	Amendment No. 2, dated September 1, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 10.1 to Owens-Illinois Inc.'s Form 8-K dated September 1, 2015, File No. 1-9576, and incorporated herein by reference).
4.12	—	Amendment No. 3, dated September 29, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.4 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2015, File No. 1-9576, and incorporated herein by reference).
4.13	—	Amendment No. 4, dated February 3, 2016, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated as of April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated February 3, 2016, File No. 1-9576, and incorporated herein by reference).
4.14	—	First Incremental Amendment, dated September 1, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 10.2 to Owens-Illinois Inc.'s Form 8-K dated September 1, 2015, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
4.15	—	Third Amended and Restated Intercreditor Agreement, dated as of May 19, 2011, by and among Deutsche Bank AG, New York Branch, as Administrative Agent for the lenders party to the Credit Agreement (as defined therein) and Deutsche Bank Trust Company Americas, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.16	—	Fourth Amended and Restated Pledge Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc., and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.17	—	Amended and Restated Security Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., each of the direct and indirect subsidiaries of Owens-Illinois Group, Inc. signatory thereto, and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) (filed as Exhibit 4.3 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
10.1*	—	Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1998, File No. 1-9576, and incorporated herein by reference).
10.2*	—	First Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2000, File No. 1-9576, and incorporated herein by reference).
10.3*	—	Second Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2002, File No. 1-9576, and incorporated herein by reference).
10.4*	—	Third Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2003, File No. 1-9576, and incorporated herein by reference).
10.5*	—	Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.26 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.6*	—	First Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.27 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.7*	—	Second Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 1997, File No. 1-9576, and incorporated herein by reference).
10.8*	—	Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1999, File No. 1-9576, and incorporated herein by reference).
10.9*	—	First Amendment to Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2002, File No. 1-9576, and incorporated herein by reference).
10.10*	—	Owens-Illinois, Inc. Executive Deferred Savings Plan (filed herewith).
10.11*	—	2004 Equity Incentive Plan for Directors of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2004, File No. 1-9576, and incorporated herein by reference).
10.12*	—	Owens-Illinois 2004 Executive Life Insurance Plan (filed as Exhibit 10.32 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.13*	—	Owens-Illinois 2004 Executive Life Insurance Plan for Non-U.S. Employees (filed as Exhibit 10.33 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.14*	—	Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan dated as of April 24, 2009 (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2009, File No. 1-9576, and incorporated herein by reference).
10.15*	—	Form of Non-Qualified Stock Option Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.25 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.16*	—	Form of Restricted Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.30 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
10.17*	—	Form of Phantom Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.31 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
10.18*	—	Form of Restricted Stock Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.28 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.19*	—	Form of Performance Share Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.29 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.20*	—	Amended and restated letter agreement between Owens-Illinois, Inc. and Albert P.L. Stroucken (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated October 26, 2011, File No. 1-9576, and incorporated herein by reference).
10.21*	—	Second Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 31, 2014, File No. 1-9576, and incorporated herein by reference).
10.22*	—	Form of Non-Qualified Stock Option Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.23*	—	Form of Restricted Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.24*	—	Form of Performance Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.25*	—	Owens-Illinois, Inc. Executive Severance Policy (filed as Exhibit 10.4 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.26*	—	Letter Agreement dated March 7, 2015, between Owens-Illinois, Inc. and Stephen P. Bramlage, Jr. (filed as Exhibit 10.5 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.27*	—	Letter Agreement signed November 20, 2015, between Owens-Illinois, Inc. and Jan Bertsch (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated November 23, 2015, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.28*	—	Letter Agreement dated March 7, 2016, between Owens-Illinois, Inc. and James W. Baehren (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2016, File No. 1-9576, and incorporated herein by reference).
12	—	Computation of Ratio of Earnings to Fixed Charges (filed herewith).
21	—	Subsidiaries of Owens-Illinois, Inc. (filed herewith).
23	—	Consent of Independent Registered Public Accounting Firm (filed herewith).
24	—	Owens-Illinois, Inc. Power of Attorney (filed herewith).
31.1	—	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	—	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.1**	—	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
32.2**	—	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
101	—	Financial statements from the Annual Report on Form 10-K of Owens-Illinois, Inc. for the year ended December 31, 2016, formatted in XBRL: (i) the Consolidated Results of Operations, (ii) the Consolidated Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Share Owners' Equity, (v) the Consolidated Cash Flows and (vi) the Notes to Consolidated Financial Statements.

* Indicates a management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(c).

** This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

ITEM 16. FORM 10-K SUMMARY

None.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owner of
Owens-Brockway Packaging, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Brockway Packaging, Inc. (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of results of operations, comprehensive income, share owner's equity and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Brockway Packaging, Inc. at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2017

Owens-Brockway Packaging, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions

Years ended December 31,	2016	2015	2014
Net sales	$ 6,702	$ 6,156	$ 6,784
Cost of goods sold	(5,387)	(5,060)	(5,523)
Gross profit	1,315	1,096	1,261
Selling and administrative expense	(411)	(389)	(412
Research, development and engineering expense	(65)	(64	(63)
Equity earnings	60	60	64
Interest expense, net	(253)	(232)	(210)
Other expense, net	(78)	(77)	(138)
Earnings from continuing operations before income taxes	568	394	502
Provision for income taxes	(123)	(101)	(93)
Earnings from continuing operations	445	293	409
Loss from discontinued operations	(7)	(4)	(4)
Net earnings	438	289	405
Net earnings attributable to noncontrolling interests	(21)	(23)	(28)
Net earnings attributable to the Company	$ 417	$ 266	$ 377
Amounts attributable to the Company:			
Earnings from continuing operations	$ 424	$ 270	$ 381
Loss from discontinued operations	(7)	(4)	(4)
Net earnings	$ 417	$ 266	$ 377

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2016	2015	2014
Net earnings	$ 438	$ 289	$ 405
Other comprehensive income (loss):			
Foreign currency translation adjustments	(224)	(529)	(305)
Pension and other postretirement benefit adjustments, net of tax	(38)	13	112
Change in fair value of derivative instruments, net of tax	13	(6)	1
Other comprehensive loss	(249)	(522)	(192)
Total comprehensive income (loss)	189	(233)	213
Comprehensive income attributable to noncontrolling interests	(17)	(7)	(7)
Comprehensive income (loss) attributable to the Company	$ 172	$ (240)	$ 206

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$ 465	$ 394
Trade receivables, net of allowances of $32 million and $29 million at December 31, 2016 and 2015, respectively	580	562
Inventories	983	1,007
Prepaid expenses and other current assets	183	352
Total current assets	2,211	2,315
Other assets:		
Equity investments	433	409
Pension assets	40	32
Other assets	538	527
Intangibles	464	597
Goodwill	2,462	2,489
Total other assets	3,937	4,054
Property, plant and equipment:		
Land, at cost	237	248
Buildings and equipment, at cost:		
Buildings and building equipment	1,048	1,080
Factory machinery and equipment	4,491	4,520
Transportation, office and miscellaneous equipment	66	68
Construction in progress	237	236
Net property, plant and equipment	6,079	6,152
Less accumulated depreciation	3,224	3,221
Net property, plant and equipment	2,855	2,931
Total assets	$ 9,003	$ 9,300

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions

December 31,	2016	2015
Liabilities and Share Owner's Equity		
Current liabilities:		
Accounts payable including amount to related parties of $7 million and $3 million at December 31, 2016 and 2015, respectively	$ 1,124	$ 1,200
Salaries and wages	156	139
U.S. and foreign income taxes	58	34
Other accrued liabilities	330	332
Short-term loans	162	160
Long-term debt due within one year	32	67
Total current liabilities	1,862	1,932
External long-term debt	4,876	5,087
Deferred taxes	144	200
Pension benefits	257	224
Nonpension postretirement benefits	78	66
Other liabilities	174	186
Share owner's equity:		
Investment by and advances from Parent	2,562	2,311
Accumulated other comprehensive loss	(1,059)	(814)
Total share owner's equity of the Company	1,503	1,497
Noncontrolling interests	109	108
Total share owner's equity	1,612	1,605
Total liabilities and share owner's equity	$ 9,003	$ 9,300

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED SHARE OWNER'S EQUITY

Dollars in millions

	Investment by and Advances from Parent	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Share Owner's Equity
Balance on January 1, 2014	$ 2,305	$ (137)	$ 147	$ 2,315
Net intercompany transactions	(274)			(274)
Net earnings	377		28	405
Other comprehensive loss		(171)	(21)	(192)
Distributions to noncontrolling interests			(37)	(37)
Balance on December 31, 2014	2,408	(308)	117	2,217
Net intercompany transactions	(345)			(345)
Net earnings	266		23	289
Other comprehensive loss		(506)	(16)	(522)
Distributions to noncontrolling interests			(22)	(22)
Acquisitions of noncontrolling interests	(18)		6	(12)
Balance on December 31, 2015	2,311	(814)	108	1,605
Net intercompany transactions	(166)			(166)
Net earnings	417		21	438
Other comprehensive loss		(245)	(4)	(249)
Distributions to noncontrolling interests			(16)	(16)
Balance on December 31, 2016	$ 2,562	$ (1,059)	$ 109	$ 1,612

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2016	2015	2014
Operating activities:			
Net earnings	$ 438	$ 289	$ 405
Loss from discontinued operations	7	4	4
Non-cash charges (credits):			
Depreciation	371	319	331
Amortization of intangibles and other deferred items	96	77	75
Amortization of finance fees and debt discount	13	14	20
Deferred tax provision (benefit)	(8)	7	(18)
Restructuring, asset impairment and related charges	96	63	76
Non-income tax charge			69
Gain on China land sale	(71)		
Impairment of equity investment	25		
Cash paid for restructuring activities	(24)	(38)	(58)
Change in components of working capital	88	101	158
Other	(126)	41	(116)
Cash provided by continuing operating activities	905	877	946
Cash utilized in discontinued operating activities	(7)	(4)	(4)
Total cash provided by operating activities	898	873	942
Investing activities:			
Additions to property, plant and equipment	(452)	(400)	(369)
Acquisitions, net of cash acquired	(56)	(2,351)	(113)
Net cash proceeds related to sale of assets and other	84	1	16
Net activity for non-controlling partner loans			9
Net foreign exchange derivative activity	8	4	
Cash utilized in investing activities	(416)	(2,746)	(457)
Financing activities:			
Additions to long-term debt	1,235	4,538	1,226
Repayments of long-term debt	(1,452)	(2,317)	(1,100)
Increase (decrease) in short-term loans	10	51	(139
Net receipts from (distribution to) parent	(166)	(346)	(276)
Payment of finance fees	(9)	(90)	(11)
Distributions to noncontrolling interests	(16)	(22)	(37)
Cash provided by (utilized in) financing activities	(398)	1,814	(337)
Effect of exchange rate fluctuations on cash	(13)	(30)	(21)
Increase (decrease) in cash	71	(89	127
Cash and cash equivalents at beginning of period	394	483	356
Cash and cash equivalents at end of period	$ 465	$ 394	$ 483

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Packaging, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tabular data dollars in millions

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Brockway Packaging, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Relationship with Owens-Illinois Group, Inc. and Owens-Illinois, Inc. The Company is a 100%-owned subsidiary of Owens-Illinois Group, Inc. ("OI Group") and an indirect subsidiary of Owens-Illinois, Inc. ("OI Inc."). Although OI Inc. does not conduct any operations, it has substantial obligations related to outstanding indebtedness and asbestos-related payments. OI Inc. relies primarily on distributions from its direct and indirect subsidiaries to meet these obligations.

For federal and certain state income tax purposes, the taxable income of the Company is included in the consolidated tax returns of OI Inc. and income taxes are allocated to the Company on a basis consistent with separate returns.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owner's equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from forward exchange contracts not designated as hedges are classified as an investing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company has started an implementation process, including a review of customer contracts, to evaluate the effect this standard will have on its consolidated financial statements and related disclosures. At this time, the Company does not expect that the implementation of this standard in 2018 will have a significant impact on the timing in which it recognizes revenue. While the Company continues to assess the potential impacts of the new standard, the Company does not currently expect the adoption of the new standard to have a material impact on consolidated net income or the consolidated balance sheet. The Company plans to select the modified retrospective transition method upon adoption effective January 1, 2018.

Leases - In February 2016, the FASB issued ASU No. 2016-02, "Leases". Under this guidance, lessees will be required to recognize on the balance sheet a lease liability and a right-of-use asset for all leases, with the exception of short-term leases. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and will be measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and will be measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. The standard also requires a lessee to recognize a single lease cost allocated over the lease term, generally on a straight-line basis. The new guidance is effective for the Company on January 1, 2019. ASU No. 2016-02 is required to be applied using the modified retrospective approach for all leases existing as of the effective date and provides for certain practical expedients. Early adoption is permitted. The Company is currently evaluating the effects that the adoption of ASU No. 2016-02 will have on the Company's consolidated financial statements, and anticipates the new guidance will significantly impact its consolidated financial statements as the Company has a significant number of leases. As further described in Note 15, Operating Leases, as of December 31, 2016, the Company had minimum lease commitments under non-cancellable operating leases totaling $205 million.

Credit Losses - In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This guidance requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience,

current conditions and reasonable and supportable forecasts. This guidance also requires enhanced disclosures regarding significant estimates and judgments used in estimating credit losses. The new guidance is effective for the Company on January 1, 2020. Early adoption is permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Stock Compensation - In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting," which requires all excess tax benefits or deficiencies to be recognized as income tax expense or benefit in the income statement. In addition, excess tax benefits should be classified along with other income tax cash flows as an operating activity in the statement of cash flows. Application of the standard is required for the Company on January 1, 2017. The Company does not expect a significant impact in its Consolidated Financial Statements.

Pension Asset Value - In May 2015, the FASB issued ASU No. 2015-07, "Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalent)." Under the new guidance, investments measured at net asset value ("NAV"), as a practical expedient for fair value, are excluded from the fair value hierarchy. Removing investments measured using the practical expedient from the fair value hierarchy is intended to eliminate the diversity in practice that currently exists with respect to the categorization of these investments. The new guidance is effective for the Company on January 1, 2016. The guidance impacted the presentation of certain pension related assets that use NAV as a practical expedient. See Note 9 for additional information.

Participation in OI Inc. Stock Option Plans and Other Stock Based Compensation The Company participates in the equity compensation plans of OI Inc. under which employees of the Company may be granted options to purchase common shares of OI Inc., restricted common shares of OI Inc., or restricted share units of OI Inc.

Stock Options

In general, subject to change in control, options become exercisable 25% per year beginning on the first anniversary of grant. No options may be exercised in whole or in part during the first year after the date granted.

In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Restricted Shares and Restricted Share Units

Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit as units vest. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units is amortized over the vesting periods which range from one to four years.

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to two shares of OI Inc.'s common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of OI Inc.'s Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of OI Inc.'s common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

As discussed in Note 21, costs incurred under these plans by OI Inc. related to stock-based compensation awards granted directly to the Company's employees are included in the allocable costs charged to the Company and other operating subsidiaries of OI Inc. on an intercompany basis.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015 (see Note 17), the Company has renamed the former South America segment to the Latin America segment. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2016	2015	2014
Net sales:			
Europe	$ 2,300	$ 2,324	$ 2,794
North America	2,220	2,039	2,003
Latin America	1,432	1,064	1,159
Asia Pacific	684	671	793
Reportable segment totals	6,636	6,098	6,749
Other	66	58	35
Net sales	$ 6,702	$ 6,156	$ 6,784

	2016	2015	2014
Segment operating profit:			
Europe	$ 237	$ 209	$ 353
North America	299	265	240
Latin America	269	183	227
Asia Pacific	77	83	88
Reportable segment totals	882	740	908
Items excluded from segment operating profit:			
Other income(expense)	(5)	2	(1)
Restructuring, asset impairment and other charges	(127)	(80)	(91)
Gain on China land sale	71		
Strategic transaction costs		(4)	
Acquisition-related fair value inventory adjustments		(22)	
Acquisition-related fair value intangible adjustments		(10)	
Non-income tax charge			(69)
Pension Settlement charges			(35)
Interest expense, net	(253)	(232)	(210)
Earnings from continuing operations before income taxes	$ 568	$ 394	$ 502

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Other	Consolidated Totals
Total assets:							
2016	$ 2,793	$ 2,515	$ 2,536	$ 926	$ 8,770	$ 233	$ 9,003
2015	2,902	2,492	2,807	917	9,118	182	9,300
2014	3,215	1,963	1,300	1,018	7,496	181	7,677
Equity investments:							
2016	$ 78	$ 21	$ —	$ 117	$ 216	$ 217	$ 433
2015	78	22		145	245	164	409
2014	81	24		153	258	169	427
Equity earnings:							
2016	$ 15	$ 12	$ —	$ 4	$ 31	$ 29	$ 60
2015	16	19		7	42	18	60
2014	19	17		4	40	24	64
Capital expenditures:							
2016	$ 163	$ 107	$ 123	$ 59	$ 452	$ —	$ 452
2015	164	97	89	50	400		400
2014	188	89	55	34	366	3	369
Depreciation and amortization expense:							
2016	$ 118	$ 139	$ 173	$ 37	$ 467	$ —	$ 467
2015	120	128	107	40	395	1	396
2014	140	131	79	53	403	3	406

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 722	$ 2,133	$ 2,855
2015	704	$ 2,227	$ 2,931
2014	678	1,734	2,412

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 2,124	$ 4,578	$ 6,702
2015	1,939	4,217	6,156
2014	1,852	4,932	6,784

Intercompany sales in Latin America totaled $195 million, $101 million and $0 for the years ended December 31, 2016, 2015, and 2014, respectively.

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015 — 10%, 2014 — 11%).

3. Inventories

Major classes of inventory are as follows:

	2016	2015
Finished goods	$ 827	$ 858
Raw materials	118	113
Operating supplies	38	36
	$ 983	$ 1,007

4. Equity Investments

At December 31, 2016 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50%	Glass container manufacturer
CO Vidrieria SARL ("COV")	50%	Glass container manufacturer
Rocky Mountain Bottle Company	50%	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25%	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50%	Glass container manufacturer
Vetri Speciali SpA	50%	Specialty glass manufacturer

Summarized information pertaining to the Company's equity affiliates follows:

	2016	2015	2014
Equity in earnings:			
Non-U.S.	$ 28	$ 23	$ 23
U.S.	32	37	41
Total	$ 60	$ 60	$ 64
Dividends received	$ 38	$ 53	$ 54

Summarized combined financial information for equity affiliates is as follows (unaudited):

	2016	2015
At end of year:		
Current assets	$ 451	$ 430
Non-current assets	1,025	959
Total assets	1,476	1,389
Current liabilities	200	203
Other liabilities and deferred items	368	211
Total liabilities and deferred items	568	414
Net assets	$ 908	$ 975

	2016	2015	2014
For the year:			
Net sales	$ 755	$ 719	$ 752
Gross profit	$ 182	$ 193	$ 198
Net earnings	$ 134	$ 139	$ 150

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2016, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed.

The Company made purchases of approximately $176 million and $161 million from equity affiliates in 2016 and 2015, respectively, and owed approximately $76 million and $66 million to equity affiliates as of December 31, 2016 and 2015, respectively.

There is a difference of approximately $12 million as of December 31, 2016, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2016, 2015 and 2014 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2014	$ 1,044	$ 734	$ 276	$ 5	$ 2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisition related adjustments		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	840	1,020	624	5	2,489
Acquisition related adjustments		15	26		41
Translation effects	(32)	3	(39)		(68)
Balance as of December 31, 2016	$ 808	$ 1,038	$ 611	$ 5	$ 2,462

The acquisition related adjustments in 2016 and 2015 primarily relate to the Vitro Acquisition (see Note 17).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2016, 2015 and 2014.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the

carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2016, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 17).

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Net intangible asset values were $464 million and $597 million for the years ended December 31, 2016 and 2015, respectively. Amortization expense for intangible assets was $39 million, $21 million and $1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Estimated amortization related to intangible assets through 2021 is as follows: 2017, $44 million; 2018, $44 million; 2019, $42 million; 2020, $41 million; and 2021, $39 million. No impairment existed on these assets at December 31, 2016.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets at December 31, 2016 and 2015 are as follows:

	2016	2015
Prepaid expenses	$ 38	$ 42
Value added taxes	46	195
Other	99	115
	$ 183	$ 352

Other assets (noncurrent) consist of the following at December 31, 2016 and 2015:

	2016	2015
Deferred tax assets	$ 189	$ 177
Deferred returnable packaging costs	115	110
Repair part inventories	107	118
Value added taxes	22	17
Capitalized software	31	28
Deferred finance fees	5	6
Other	69	71
	$ 538	$ 527

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $6 million, $9 million and $8 million for 2016, 2015 and 2014, respectively. Estimated amortization related to capitalized software through 2021 is as follows: 2017, $6 million; 2018, $6 million; 2019, $5 million; 2020, $5 million; and 2021, $4 million.

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2016 and 2015, the Company had entered into commodity forward contracts covering approximately 12,300,000 MM BTUs and 7,300,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2016 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized gain of $6 million at December 31, 2016 and an unrecognized loss of $4 million at December 31, 2015 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2016 and 2015 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Amount of gain (loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of gain (loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2016	2015	2014	2016	2015	2014
$ 7	$ (4)	$ 3	$ —	$ (1)	$ 2

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange

agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2016 and 2015, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $490 million and $790 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2016	2015	2014
Other expense, net	$ 6	$ 10	$ (8)

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year.

The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2016 and 2015:

		Fair Value	
	Balance Sheet Location	2016	2015
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	b	$ 6	$ —
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	a	$ 9	$ 14
Total asset derivatives		$ 15	$ 14
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ —	$ 3
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	c	5	2
Total liability derivatives		$ 5	$ 5

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

In 2011, the Company initiated the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0, $0, and $1 million for the years ended 2016, 2015 and 2014, respectively for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company recorded total cumulative charges of $127 million and does not expect to execute any further actions under this program.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $4 million, $5 million and $73 million for the years ended 2016, 2015 and 2014, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company recorded total cumulative charges of $224 million and does not expect to execute any further actions under this program.

Other Restructuring Actions

In 2016, the Company recorded charges of $92 million for other restructuring actions. These charges primarily represented employee costs, write-down of assets, and other exit costs of $64 million for a plant closures in Latin America, Europe and North America and $28 million related to other restructuring actions. The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2015 through December 31, 2015:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2015	$ 12	$ 12	$ 36	$ 60
Charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)
Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2016 through December 31, 2016:

	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2016	$ 7	$ 36	$ 43
Charges	4	92	96
Write-down of assets to net realizable value		(28)	(28)
Net cash paid, principally severance and related benefits	(3)	(21)	(24)
Other, including foreign exchange translation	(1)	(3)	(4)
Balance at December 31, 2016	$ 7	$ 76	$ 83

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2016, the Company's estimates include approximately $65 million for employee benefits costs, $16 million for environmental remediation costs, and $2 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company participates in OI Inc.'s defined benefit pension plans for a substantial number of employees located in the United States. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. OI Inc.'s policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. Independent actuaries determine pension costs for each subsidiary of OI Inc. included in the plans; however, accumulated benefit obligation information and plan assets pertaining to each subsidiary have not been separately determined. As such, the accumulated benefit obligation and the plan assets related to the pension plans for domestic employees have been retained by another subsidiary of OI Inc. Net expense to results of operations for the Company's allocated portion of the domestic pension costs amounted to $23 million in 2016, $24 million in 2015 and $19 million in 2014.

OI Inc. also sponsors several defined contribution plans for all salaried and hourly U.S. employees of the Company. Participation is voluntary and participants' contributions are based on their compensation. OI Inc. matches contributions of participants, up to various limits, in substantially all plans. OI Inc. charges the Company for its share of the match. The Company's share of the contributions to these plans amounted to $32 million in 2016, $27 million in 2015 and $17 million in 2014.

The Company also has defined benefit pension plans covering a substantial number of employees in several non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the non-U.S. pension benefit obligations for the year are as follows:

	2016	2015
Obligations at beginning of year	$ 1,210	$ 1,311
Change in benefit obligations:		
Service cost	16	15
Interest cost	44	44
Actuarial (gain) loss, including the effect of change in discount rates	160	(9)
Acquisitions		37
Participant contributions	2	1
Benefit payments	(71)	(58)
Other	3	
Foreign currency translation	(129)	(131)
Net change in benefit obligations	25	(101)
Obligations at end of year	$ 1,235	$ 1,210

The changes in the fair value of the non-U.S. pension plans' assets for the year are as follows:

	2016	2015
Fair value at beginning of year	$ 1,012	$ 1,094
Change in fair value:		
Actual gain (loss) on plan assets	139	42
Benefit payments	(71)	(58)
Employer contributions	38	15
Participant contributions	2	1
Acquisitions		22
Foreign currency translation	(111)	(104)
Other	2	
Net change in fair value of assets	(1)	(82)
Fair value at end of year	$ 1,011	$ 1,012

The funded status of the non-U.S. pension plans at year end are as follows:

	2016	2015
Plan assets at fair value	$ 1,011	$ 1,012
Projected benefit obligations	1,235	1,210
Plan assets less than projected benefit obligations	(224)	(198)
Items not yet recognized in pension expense:		
Actuarial loss	352	320
Prior service cost (credit)	(1)	(1)
	351	319
Net amount recognized	$ 127	$ 121

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	2016	2015
Pension assets	$ 40	$ 32
Current pension liability, included with other accrued liabilities	(7)	(6)
Pension benefits	(257)	(224)
Accumulated other comprehensive loss	351	319
Net amount recognized	$ 127	$ 121

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	2016	2015
Current year actuarial (gain) loss	$ 87	$ 15
Amortization of actuarial loss	(12)	(15)
Settlement		
	75	—
Translation	(43)	(31)
	$ 32	$ (31)

The components of the non-U.S. pension plans' net pension expense for the year are as follows:

	2016	2015	2014
Service cost	$ 16	$ 15	$ 23
Interest cost	44	44	69
Expected asset return	(65)	(67)	(86)
Amortization:			
Actuarial loss	13	15	18
Prior service credit	—	—	—
Net amortization	13	15	18
Net expense	$ 8	$ 7	$ 24

On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands, resulting in a settlement charge of approximately $35 million. Non-U.S. pension expense excludes $3 million of pension settlement costs that were recorded in restructuring expense in 2014. The table above excludes these charges.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2017:

Amortization:	
Actuarial loss	$ 16
Prior service cost	—
Net amortization	$ 16

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds Fair Value of Plan Assets		Accumulated Benefit Obligation Exceeds Fair Value of Plan Assets	
	2016	2015	2016	2015
Projected benefit obligations	$ 897	$ 876	$ 897	$ 876
Accumulated benefit obligation	867	850	867	850
Fair value of plan assets	632	645	632	645

The weighted average assumptions used to determine benefit obligations are as follows:

	2016	2015
Discount rate	2.94%	3.68%
Rate of compensation increase	2.90%	2.84%

The weighted average assumptions used to determine net periodic pension costs are as follows:

	2016	2015	2014
Discount rate	3.68%	3.65%	4.14%
Rate of compensation increase	2.84%	2.89%	3.31%
Expected long-term rate of return on assets	7.15%	7.21%	7.23%

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2016, the Company's weighted average expected long-term rate of return on assets was 7.15% for the non-U.S. plans. In developing this assumption, the Company considered its historical 10-year average return (through December 31, 2016) and evaluated input from its third party pension plan asset consultants, including their review of asset class return expectations

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

In accordance with the Company's adoption of ASU No. 2015-07 in 2016, certain investments measured at net asset value ("NAV"), as a practical expedient for fair value, have been excluded from the fair value hierarchy. The fair value measurements tables presented below have been amended to conform to the current year presentation under ASU No. 2015-07. See Note 1 for more information.

In 2016, the non-U.S. plan assets consisted of approximately 41% equity securities, 42% debt securities, and 17% real estate and other. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2016 and 2015:

	2016				2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 24	$ —	$ —	$ 24	$ 30	$ —	$ —	$ 30
Equity securities				—				—
Debt securities	37	2		39	16			16
Real estate			4	4			5	5
Other		37	6	43		24	6	30
Total	$ 61	$ 39	$ 10		$ 46	$ 24	$ 11	
Investments measured at net asset value				$ 901				$ 931
Total non-U.S. assets at fair value				$ 1,011				$ 1,012

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2016	2015
Beginning balance	$ 11	$ 5
Net increase (decrease)	(1)	6
Ending balance	$ 10	$ 11

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2016.

In order to maintain minimum funding requirements, the Company is required to make contributions to its non-U.S. defined benefit pension plans of approximately $24 million in 2017.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2017	$ 53
2018	51
2019	54
2020	57
2021	60
2022 - 2026	343

Postretirement Benefits Other Than Pensions

OI Inc. provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. OI Inc. uses a December 31 measurement date to measure its postretirement benefit obligations.

The Company's net periodic postretirement benefit income, as allocated by OI Inc., for domestic employees was $2 million, $2 million, and $1 million at December 31, 2016, 2015 and 2014, respectively.

The Company also has postretirement benefit plans covering substantially all employees in Canada. The following tables relate to the Company's postretirement benefit plans in Canada.

The changes in the postretirement benefit obligations for the year are as follows:

	2016	2015
Obligations at beginning of year	$ 68	$ 81
Change in benefit obligations:		
Service cost	1	1
Interest cost	3	3
Actuarial (gain) loss, including the effect of changing discount rates	9	(1)
Benefit payments	(2)	(3)
Foreign currency translation	2	(13)
Net change in benefit obligations	13	(13)
Obligations at end of year	$ 81	$ 68

The funded status of the postretirement benefit plans at year end is as follows:

	2016	2015
Postretirement benefit obligations	$ (81)	$ (68)
Items not yet recognized in net postretirement benefit cost:		
Actuarial gain (loss)	(6)	3
Net amount recognized	$ (87)	$ (65)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	2016	2015
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (3)	$ (2)
Nonpension postretirement benefits	(78)	(66)
Accumulated other comprehensive income (loss)	(6)	3
Net amount recognized	$ (87)	$ (65)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	2016	2015
Current year actuarial (gain) loss	$ 9	$ —

The components of the net postretirement benefit cost for the year are as follows:

	2016	2015	2014
Service cost	$ 1	$ 1	$ 1
Interest cost	3	3	4
Net postretirement benefit cost	$ 4	$ 4	$ 5

The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	2016	2015	2014
Accumulated postretirement benefit obligation	3.55%	3.80%	3.75%
Net postretirement benefit cost	3.80%	3.75%	4.47%

The weighted average assumed health care cost trend rates at December 31 are as follows:

	2016	2015
Health care cost trend rate assumed for next year	5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	N/A	N/A

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-Percentage Point	
	Increase	Decrease
Effect on total of service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	13	(10)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2017	$ 3
2018	3
2019	3
2020	3
2021	3
2022 - 2026	18

10. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2016	2015	2014
U.S.	$ 185	$ 125	$ 231
Non-U.S.	383	269	271
	$ 568	$ 394	$ 502

Discontinued operations	2016	2015	2014
U.S.	$ —	$ —	$ —
Non-U.S.	(7)	(4)	(4)
	$ (7)	$ (4)	$ (4)

The provision (benefit) for income taxes consists of the following:

	2016	2015	2014
Current:			
U.S.	$ 8	$ 9	$ 8
Non-U.S.	123	85	103
	131	94	111
Deferred:			
U.S.	(1)	5	—
Non-U.S.	(7)	2	(18)
	(8)	7	(18)
Total:			
U.S.	7	14	8
Non-U.S.	116	87	85
Total	$ 123	$ 101	$ 93

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2016	2015	2014
Tax provision on pretax earnings (loss) from continuing operations at statutory U.S. Federal tax rate	$ 199	$ 138	$ 177
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates under U.S. rates	(22)	(12)	(22)
Changes in valuation allowance	8	21	(24)
Withholding tax, net	20	18	18
Non-deductible acquisition costs			
U.S. tax on intercompany dividends and interest	3	16	1
U.S. tax consolidation benefit	(74)	(70)	(47)
Tax exempt income	(2)	(3)	(5)
Tax law changes	(3)	(3)	
Tax credit	(17)	(14)	(3)
Change in tax reserves	8	5	(13)
Mexico inflationary adjustments	6	3	
Other items	(3)	2	11
Provision for income taxes	$ 123	$ 101	93

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2016 and 2015 are as follows:

	2016	2015
Deferred tax assets:		
Accrued postretirement benefits	$ 21	$ 18
Foreign tax credit	414	389
Operating and capital loss carryovers	280	296
Other credit carryovers	14	13
Accrued liabilities	75	68
Pension liability	30	27
Other	51	38
Total deferred tax assets	885	849
Deferred tax liabilities:		
Property, plant and equipment	112	112
Intangibles and deferred software	119	131
Other	9	26
Total deferred tax liabilities	240	269
Valuation allowance	(600)	(603)
Net deferred taxes	$ 45	$ (23)

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	2016	2015
Other assets	$ 189	$ 177
Deferred taxes	(144)	(200)
Net deferred taxes	$ 45	$ (23)

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2016, before valuation allowance, the Company had unused foreign tax credits of $414 million expiring in 2017 through 2026, and research tax credit of $14 million expiring from 2019 to 2036, which will be available to offset future income tax. Approximately $151 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $129 million expiring between 2017 and 2036.

At December 31, 2016, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.2 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company is included in OI Inc.'s consolidated tax returns for U.S. federal and certain state income tax purposes. The consolidated group has net operating losses, capital losses, alternative minimum tax credits, foreign tax credits and research and development credits available to offset future U.S. Federal income tax. Income taxes are allocated to the Company on a basis consistent with separate returns.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014:

	2016	2015	2014
Balance at January 1	$ 74	$ 77	$ 100
Additions and reductions for tax positions of prior years		1	(13)
Additions based on tax positions related to the current year	15	10	10
Reductions due to the lapse of the applicable statute of limitations	(3)	(5)	(8)
Reductions due to settlements	(12)	(1)	(1)
Foreign currency translation		(8)	(11)
Balance at December 31	$ 74	$ 74	$ 77
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 66	$ 67	$ 70
Accrued interest and penalties at December 31	$ 23	$ 25	$ 29
Interest and penalties included in tax expense for the years ended December 31	$ (2)	$ (1)	$ (2)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably possible that the estimated liability could decrease up to $11 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Bolivia, Brazil, China, Canada, Colombia, Ecuador, France, Germany, Indonesia, and Italy. The years under examination range from 2006 through 2014. The Company has received tax assessments in excess of established reserves. The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. During 2016, the Company concluded income tax audits in several jurisdictions, including the Czech Republic, Germany, Italy, and Hungary.

11. External Debt

The following table summarizes the external long-term debt of the Company at December 31, 2016 and 2015:

	2016	2015
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,395	1,546
Term Loan A (€279 million at December 31, 2016)	282	301
Term Loan B		563
Senior Notes:		
6.75%, due 2020 (€500 million)	523	542
4.875%, due 2021 (€330 million)	345	357
5.00%, due 2022	495	494
5.875%, due 2023	682	680
3.125%, due 2024 (€500 million)	520	
5.375%, due 2025	297	296
6.375%, due 2025	294	293
Capital leases	55	52
Other	20	30
Total long-term debt	4,908	5,154
Less amounts due within one year	32	67
Long-term debt	$ 4,876	$ 5,087

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on February 3, 2016 (the "Amended Agreement"). In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 17), the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Amended Agreement and (ii) a $575 million term loan B facility, which was subsequently repaid in full in November 2016 as described below.

At December 31, 2016, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,395 million net of debt issuance costs), and a €279 million term loan A facility ($282 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2016, the Company had unused credit of $884 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2016 was 2.39%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of (i) 4.5x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and (ii) 4.0x for the fourth fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2016, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting the debt discount and debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2016 and 2015 is as follows:

	2016	2015
Balance (included in short-term loans)	$ 152	$ 158
Weighted average interest rate	0.74%	1.21%

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2021 are as follows: 2017, $33 million; 2018, $287 million; 2019, $101 million; 2020, $2,074 million; and 2021, $354 million.

Fair values at December 31, 2016, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 526	$ 120.63	$ 635
4.875%, due 2021 (€330 million)	347	114.00	396
5.00%, due 2022	500	103.49	517
5.875%, due 2023	700	105.37	738
3.125%, due 2024 (€500 million)	526	100.01	526
5.375%, due 2025	300	101.17	304
6.375%, due 2025	300	106.28	319

12. Contingencies

Certain litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are nonroutine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based including additional information, negotiations, settlements, and other events. The ultimate legal and financial liability of the Company in respect to this pending litigation cannot reasonably be estimated. However, the Company believes, based on its examination and review of such matters and experience to date, that such ultimate liability will not have a material adverse effect on its results of operations or financial condition.

The Company's joint venture in China had been involved in litigation with its partner regarding whether the joint venture should be dissolved. Following an ownership change in 2016 with respect to the joint venture partner, this litigation has been withdrawn.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Loss
Balance on January 1, 2015	$ (55)	$ 2	$ (255)	$ (308)
Change before reclassifications	(513)	(4)	27	(490)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	15 (b)	14
Translation effect			(31)	(31)
Tax effect		(1)	2	1
Other comprehensive income (loss) attributable to the Company	(513)	(6)	13	(506)
Balance on December 31, 2015	(568)	$ (4)	$ (242)	$ (814)
Change before reclassifications	(220)	7	(96)	(309)
Amounts reclassified from accumulated other comprehensive income		6 (a)	18 (b)	24
Translation effect			25	25
Tax effect			15	15
Other comprehensive income (loss) attributable to the Company	(220)	13	(38)	(245)
Balance on December 31, 2016	$ (788)	9	(280)	(1,059)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Other Expense, net

Other expense, net for the years ended December 31, 2016, 2015 and 2014 included the following:

	2016	2015	2014
Restructuring, asset impairment and other charges	$ 102	$ 75	$ 68
Intangible amortization expense	39	21	1
Impairment of equity investment	25		
Gain on China land compensation	(71)		
Royalty income	(13)	(12)	(12)
Strategic transaction costs		4	
Acquisition-related fair value intangible adjustments		10	
Non-income tax charge			69
Foreign currency exchange loss (gain)	6	(10)	(2)
Other expense (income)	(10)	(11)	15
	$ 78	$ 77	$ 138

In 2016, the Company evaluated the future estimated earnings and cash flow of an equity investment and determined that it was other-than-temporarily impaired. As such, the Company recorded an impairment charge of $25 million to reduce its carrying value down to its estimated fair value. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

In 2014, the Company recorded a charge of $69 million resulting from a non-income tax assessment from a foreign tax authority.

15. Operating Leases

Rent expense attributable to all warehouse, office buildings, and equipment operating leases was $76 million in 2016, $68 million in 2015 and $53 million in 2014. Minimum future rentals under operating leases are as follows: 2017, $61 million; 2018, $42 million; 2019, $28 million; 2020, $18 million; 2021, $12 million; and 2022 and thereafter, $18 million.

16. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2016	2015	2014
Decrease (increase) in current assets:			
Receivables	$ (25)	$ (20)	$ 83
Inventories	13	(13)	(27)
Prepaid expenses and other	148	(8)	29
Increase (decrease) in current liabilities:			
Accounts payable and accrued liabilities	(91)	139	48
Salaries and wages	20	16	12
U.S. and foreign income taxes	23	(13)	13
	$ 88	$ 101	$ 158

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2016 and 2015, the amount of receivables sold by the Company was $318 million and $317 million, respectively. Any continuing involvement with the sold receivables is immaterial.

	2016	2015	2014
Interest paid in cash	$ 241	$ 207	$ 179
Income taxes paid in cash (all non-U.S)	99	101	101

Cash interest for the years ended December 31, 2016, 2015 and 2014 includes $9 million, $32 million and $9 million of note repurchase premiums, respectively.

17. Business Combinations

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion in cash, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $608 million of incremental net sales and $122 million of incremental segment operating profit in the year ended December 31, 2016. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from a senior notes offering, cash on hand and the incremental term loan facilities (see Note 11).

The total purchase price was allocated to the tangible and identifiable intangible assets and liabilities based upon their respective fair values. The purchase agreement contained customary provisions for working capital adjustments, which the Company resolved with the seller in the first quarter of 2016. The Company completed the purchase price allocation process in the third quarter of 2016. The following table summarizes the fair value of the assets and liabilities assumed on September 1, 2015 and subsequent adjustments identified through the purchase price allocation process and recorded through the measurement period:

	September 1, 2015	Measurement Period Adjustments	September 30, 2016
Cash	$ 17	$ —	$ 17
Other current assets	344	(10)	334
Goodwill	1,073	(236)	837
Customer list intangibles	406	202	608
Net property, plant and equipment	597	48	645
Total assets	2,437	4	2,441
Current liabilities	93	(7)	86
Long-term debt	11		11
Long-term liabilities	36	11	47
Net assets acquired	$ 2,297	$ —	$ 2,297

The fair value of the tangible assets was estimated utilizing income and market approaches, considering remaining useful life. The customer list intangible asset includes the Company's established relationships with its customers and the ability of these customers to generate future economic profits for the Company. The value assigned to customer list intangibles is based on the present value of future earnings attributable to the asset group after recognition of required returns to other contributory assets.

Recognized goodwill is attributable to the assembled workforce, expected synergies and other intangible assets that do not qualify for separate recognition. The Vitro Acquisition goodwill is not deductible for tax purposes.

The balance sheet adjustments identified above did not result in any significant adjustments to the periods' income statements.

18. Pro Forma Information – Vitro Acquisition

Had the Vitro Acquisition, described in Note 17 and the related financing described in Note 11, occurred at the beginning of each respective period, unaudited pro forma consolidated net sales and earnings from continuing operations would have been as follows:

	Year Ending December 31, 2015			
	As Reported	Acquisition Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 270	$ 79	$ (46)	$ 303

19. Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") ruled that a subsidiary of the Company is free to pursue the enforcement of a prior arbitration award against Venezuela. That award amounts to more than $485 million after including interest from the date of the expropriation by Venezuela (October 26, 2010). Venezuela's application to annul the award is still pending, although the annulment proceedings were suspended in October 2016 because Venezuela has not paid its fees owed to ICSID. If the proceeding is stayed for non-payment for a consecutive period in excess of six months, ICSID's Secretary General could move that the committee discontinue the annulment proceeding altogether. The Company intends to take appropriate steps to vigorously enforce and collect the award, which is enforceable in approximately 150 member states that are party to the ICSID Convention. However, even with the lifting of the stay of enforcement, the Company recognizes that the collection of the award may present significant practical challenges. Because the award has yet to be satisfied and the annulment proceeding is pending, the Company is unable at this stage to reasonably predict the efforts that will be necessary to successfully enforce collection of the award, the amount of the award or the timing of any such collection efforts. Therefore, the Company has not recognized this award in its financial statements.

The loss from discontinued operations of $7 million, $4 million and $4 million, for the years ended December 31, 2016, 2015 and 2014, respectively, relates to ongoing costs for the Venezuelan expropriation.

20. Guarantees of Debt

OI Group and the Company guarantee OI Inc.'s senior debentures on a subordinated basis. The fair value of the OI Inc. debt being guaranteed was $266 at December 31, 2016.

21. Related Party Transactions

Charges for administrative services are allocated to the Company by OI Inc. based on an annual utilization level. Such services include compensation and benefits administration, payroll processing, use of certain general accounting systems, auditing, income tax planning and compliance, and treasury services.

Allocated costs also include charges associated with OI Inc.'s equity compensation plans. A substantial number of the options, restricted share units and performance vested restricted share units granted under these plans have been granted to key employees of another subsidiary of OI Inc., some of whose compensation costs, including stock-based compensation, are included in an allocation of costs to all operating subsidiaries of OI Inc., including the Company.

Management believes that such transactions are on terms no less favorable to the Company than those that could be obtained from unaffiliated third parties.

The following information summarizes the Company's significant related party transactions:

	Year ended December 31,		
	2016	2015	2014
Revenues:			
Sales to affiliated companies	$ —	$ —	$ —
Expenses:			
Administrative services	$ 2	$ 2	$ 2
Corporate management fee	75	74	75
Total expenses	$ 77	$ 76	$ 77

The above expenses are recorded in the results of operations as follows:

	Year ended December 31,		
	2016	2015	2014
Cost of goods sold	$ —	$ —	$ —
Selling, general and administrative expenses	77	76	77
Total expenses	$ 77	$ 76	$ 77

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owner of
Owens-Brockway Glass Container, Inc.

We have audited the accompanying consolidated balance sheets of Owens-Brockway Glass Container, Inc. (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of results of operations, comprehensive income, share owner's equity and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Owens-Brockway Glass Container, Inc. at December 31, 2016 and 2015, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP
Toledo, Ohio
February 10, 2017

Owens-Brockway Glass Container, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions

Years ended December 31,	2016	2015	2014
Net sales	$ 6,702	$ 6,156	$ 6,784
Cost of goods sold	(5,387)	(5,060)	(5,523)
Gross profit	1,315	1,096	1,261
Selling and administrative expense	(411)	(389)	(412)
Research, development and engineering expense	(65)	(64)	(63)
Equity earnings	60	60	64
Interest expense, net	(253)	(232)	(210)
Other expense, net	(78)	(77)	(138)
Earnings from continuing operations before income taxes	568	394	502
Provision for income taxes	(123)	(101)	(93)
Earnings from continuing operations	445	293	409
Loss from discontinued operations	(7)	(4)	(4)
Net earnings	438	289	405
Net earnings attributable to noncontrolling interests	(21)	(23)	(28)
Net earnings attributable to the Company	$ 417	$ 266	$ 377
Amounts attributable to the Company:			
Earnings from continuing operations	$ 424	$ 270	$ 381
Loss from discontinued operations	(7)	(4)	(4)
Net earnings	$ 417	$ 266	$ 377

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2016	2015	2014
Net earnings	$ 438	$ 289	$ 405
Other comprehensive income (loss):			
Foreign currency translation adjustments	(224)	(529)	(305)
Pension and other postretirement benefit adjustments, net of tax	(38)	13	112
Change in fair value of derivative instruments, net of tax	13	(6)	1
Other comprehensive loss	(249)	(522)	(192)
Total comprehensive income (loss)	189	(233)	213
Comprehensive income attributable to noncontrolling interests	(17)	(7)	(7)
Comprehensive income (loss) attributable to the Company	$ 172	$ (240)	$ 206

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2016	2015
Assets		
Current assets:		
Cash and cash equivalents	$ 465	$ 394
Trade receivables, net of allowances of $32 million and $29 million at December 31, 2016 and 2015, respectively	580	562
Inventories	983	1,007
Prepaid expenses and other current assets	183	352
Total current assets	2,211	2,315
Other assets:		
Equity investments	433	409
Pension assets	40	32
Other assets	538	527
Intangibles	464	597
Goodwill	2,462	2,489
Total other assets	3,937	4,054
Property, plant and equipment:		
Land, at cost	237	248
Buildings and equipment, at cost:		
Buildings and building equipment	1,048	1,080
Factory machinery and equipment	4,491	4,520
Transportation, office and miscellaneous equipment	66	68
Construction in progress	237	236
Net property, plant and equipment	6,079	6,152
Less accumulated depreciation	3,224	3,221
Net property, plant and equipment	2,855	2,931
Total assets	$ 9,003	$ 9,300

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions

December 31,	2016	2015
Liabilities and Share Owner's Equity		
Current liabilities:		
Accounts payable including amount to related parties of $7 million and $3 million at December 31, 2016 and 2015, respectively	$ 1,124	$ 1,200
Salaries and wages	156	139
U.S. and foreign income taxes	58	34
Other accrued liabilities	330	332
Short-term loans	162	160
Long-term debt due within one year	32	67
Total current liabilities	1,862	1,932
External long-term debt	4,876	5,087
Deferred taxes	144	200
Pension benefits	257	224
Nonpension postretirement benefits	78	66
Other liabilities	174	186
Share owner's equity:		
Investment by and advances from Parent	2,562	2,311
Accumulated other comprehensive loss	(1,059)	(814)
Total share owner's equity of the Company	1,503	1,497
Noncontrolling interests	109	108
Total share owner's equity	1,612	1,605
Total liabilities and share owner's equity	$ 9,003	$ 9,300

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED SHARE OWNER'S EQUITY

Dollars in millions

	Investment by and Advances from Parent	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Share Owner's Equity
Balance on January 1, 2014	$ 2,305	$ (137)	$ 147	$ 2,315
Net intercompany transactions	(274)			(274)
Net earnings	377		28	405
Other comprehensive loss		(171)	(21)	(192)
Distributions to noncontrolling interests			(37)	(37)
Balance on December 31, 2014	2,408	(308)	117	2,217
Net intercompany transactions	(345)			(345)
Net earnings	266		23	289
Other comprehensive loss		(506)	(16)	(522)
Distributions to noncontrolling interests			(22)	(22)
Acquisitions of noncontrolling interests	(18)		6	(12)
Balance on December 31, 2015	2,311	(814)	108	1,605
Net intercompany transactions	(166)			(166)
Net earnings	417		21	438
Other comprehensive loss		(245)	(4)	(249)
Distributions to noncontrolling interests			(16)	(16)
Balance on December 31, 2016	$ 2,562	$ (1,059)	$ 109	$ 1,612

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2016	2015	2014
Operating activities:			
Net earnings	$ 438	$ 289	$ 405
Loss from discontinued operations	7	4	4
Non-cash charges (credits):			
Depreciation	371	319	331
Amortization of intangibles and other deferred items	96	77	75
Amortization of finance fees and debt discount	13	14	20
Deferred tax provision (benefit)	(8)	7	(18)
Restructuring, asset impairment and related charges	96	63	76
Non-income tax charge			69
Gain on China land sale	(71)		
Impairment of equity investment	25		
Cash paid for restructuring activities	(24)	(38)	(58)
Change in components of working capital	88	101	158
Other	(126)	41	(116)
Cash provided by continuing operating activities	905	877	946
Cash utilized in discontinued operating activities	(7)	(4)	(4)
Total cash provided by operating activities	898	873	942
Investing activities:			
Additions to property, plant and equipment	(452)	(400)	(369)
Acquisitions, net of cash acquired	(56)	(2,351)	(113)
Net cash proceeds related to sale of assets and other	84	1	16
Net activity for non-controlling partner loans			9
Net foreign exchange derivative activity	8	4	
Cash utilized in investing activities	(416)	(2,746)	(457)
Financing activities:			
Additions to long-term debt	1,235	4,538	1,226
Repayments of long-term debt	(1,452)	(2,317)	(1,100)
Increase (decrease) in short-term loans	10	51	(139)
Net receipts from (distribution to) parent	(166)	(346)	(276)
Payment of finance fees	(9)	(90)	(11)
Distributions to noncontrolling interests	(16)	(22)	(37)
Cash provided by (utilized in) financing activities	(398)	1,814	(337)
Effect of exchange rate fluctuations on cash	(13)	(30)	(21)
Increase (decrease) in cash	71	(89)	127
Cash and cash equivalents at beginning of period	394	483	356
Cash and cash equivalents at end of period	$ 465	$ 394	$ 483

See accompanying Notes to the Consolidated Financial Statements.

Owens-Brockway Glass Container, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Tabular data dollars in millions

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Brockway Glass Container, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Relationship with Owens-Brockway Packaging, Inc., Owens-Illinois Group, Inc. and Owens-Illinois, Inc. The Company is a 100%-owned subsidiary of Owens-Brockway Packaging, Inc. ("OB Packaging"), and an indirect subsidiary of Owens-Illinois Group, Inc. ("OI Group") and Owens-Illinois, Inc. ("OI Inc."). Although OI Inc. does not conduct any operations, it has substantial obligations related to outstanding indebtedness and asbestos-related payments. OI Inc. relies primarily on distributions from its direct and indirect subsidiaries to meet these obligations.

For federal and certain state income tax purposes, the taxable income of the Company is included in the consolidated tax returns of OI Inc. and income taxes are allocated to the Company on a basis consistent with separate returns.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owner's equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from forward exchange contracts not designated as hedges are classified as an investing activity. Cash flows of commodity forward contracts are classified as operating activities.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, which will be effective for the Company on January 1, 2018. The Company has started an implementation process, including a review of customer contracts, to evaluate the effect this standard will have on its consolidated financial statements and related disclosures. At this time, the Company does not expect that the implementation of this standard in 2018 will have a significant impact on the timing in which it recognizes revenue. While the Company continues to assess the potential impacts of the new standard, the Company does not currently expect the adoption of the new standard to have a material impact on consolidated net income or the consolidated balance sheet. The Company plans to select the modified retrospective transition method upon adoption effective January 1, 2018.

Leases - In February 2016, the FASB issued ASU No. 2016-02, "Leases". Under this guidance, lessees will be required to recognize on the balance sheet a lease liability and a right-of-use asset for all leases, with the exception of short-term leases. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and will be measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and will be measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. The standard also requires a lessee to recognize a single lease cost allocated over the lease term, generally on a straight-line basis. The new guidance is effective for the Company on January 1, 2019. ASU No. 2016-02 is required to be applied using the modified retrospective approach for all leases existing as of the effective date and provides for certain practical expedients. Early adoption is permitted. The Company is currently evaluating the effects that the adoption of ASU No. 2016-02 will have on the Company's consolidated financial statements, and anticipates the new guidance will significantly impact its consolidated financial statements as the Company has a significant number of leases. As further described in Note 15, Operating Leases, as of December 31, 2016, the Company had minimum lease commitments under non-cancellable operating leases totaling $205 million.

Credit Losses - In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This guidance requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience,

current conditions and reasonable and supportable forecasts. This guidance also requires enhanced disclosures regarding significant estimates and judgments used in estimating credit losses. The new guidance is effective for the Company on January 1, 2020. Early adoption is permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Stock Compensation - In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting," which requires all excess tax benefits or deficiencies to be recognized as income tax expense or benefit in the income statement. In addition, excess tax benefits should be classified along with other income tax cash flows as an operating activity in the statement of cash flows. Application of the standard is required for the Company on January 1, 2017. The Company does not expect a significant impact in its Consolidated Financial Statements.

Pension Asset Value - In May 2015, the FASB issued ASU No. 2015-07, "Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalent)." Under the new guidance, investments measured at net asset value ("NAV"), as a practical expedient for fair value, are excluded from the fair value hierarchy. Removing investments measured using the practical expedient from the fair value hierarchy is intended to eliminate the diversity in practice that currently exists with respect to the categorization of these investments. The new guidance is effective for the Company on January 1, 2016. The guidance impacted the presentation of certain pension related assets that use NAV as a practical expedient. See Note 9 for additional information.

Participation in OI Inc. Stock Option Plans and Other Stock Based Compensation The Company participates in the equity compensation plans of OI Inc. under which employees of the Company may be granted options to purchase common shares of OI Inc., restricted common shares of OI Inc., or restricted share units of OI Inc.

Stock Options

In general, subject to change in control, options become exercisable 25% per year beginning on the first anniversary of grant. No options may be exercised in whole or in part during the first year after the date granted.

In general, options expire following termination of employment or the seventh anniversary of the option grant. The fair value of options is amortized over the vesting periods which range from one to four years.

Restricted Shares and Restricted Share Units

Shares granted after March 21, 2005 and prior to 2011, vest 25% per year beginning on the first anniversary and unvested shares are forfeited upon termination of employment. Restricted share units granted to employees after 2010 vest 25% per year beginning on the first anniversary. Holders of vested restricted share units receive one share of the Company's common stock for each unit as units vest. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units is amortized over the vesting periods which range from one to four years.

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to two shares of OI Inc.'s common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of OI Inc.'s Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of OI Inc.'s common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

As discussed in Note 21, costs incurred under these plans by OI Inc. related to stock-based compensation awards granted directly to the Company's employees are included in the allocable costs charged to the Company and other operating subsidiaries of OI Inc. on an intercompany basis.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. In connection with the Company's acquisition (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries as conducted in the United States, Mexico and Bolivia (the "Vitro Business") on September 1, 2015 (see Note 17), the Company has renamed the former South America segment to the Latin America segment. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2016	2015	2014
Net sales:			
Europe	$ 2,300	$ 2,324	$ 2,794
North America	2,220	2,039	2,003
Latin America	1,432	1,064	1,159
Asia Pacific	684	671	793
Reportable segment totals	6,636	6,098	6,749
Other	66	58	35
Net sales	$ 6,702	$ 6,156	$ 6,784

	2016	2015	2014
Segment operating profit:			
Europe	$ 237	$ 209	$ 353
North America	299	265	240
Latin America	269	183	227
Asia Pacific	77	83	88
Reportable segment totals	882	740	908
Items excluded from segment operating profit:			
Other income(expense)	(5)	2	(1)
Restructuring, asset impairment and other charges	(127)	(80)	(91)
Gain on China land sale	71		
Strategic transaction costs		(4)	
Acquisition-related fair value inventory adjustments		(22)	
Acquisition-related fair value intangible adjustments		(10)	
Non-income tax charge			(69)
Pension Settlement charges			(35)
Interest expense, net	(253)	(232)	(210)
Earnings from continuing operations before income taxes	$ 568	$ 394	$ 502

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Other	Consolidated Totals
Total assets:							
2016	$ 2,793	$ 2,515	$ 2,536	$ 926	$ 8,770	$ 233	$ 9,003
2015	2,902	2,492	2,807	917	9,118	182	9,300
2014	3,215	1,963	1,300	1,018	7,496	181	7,677
Equity investments:							
2016	$ 78	$ 21	$ —	$ 117	$ 216	$ 217	$ 433
2015	78	22		145	245	164	409
2014	81	24		153	258	169	427
Equity earnings:							
2016	$ 15	$ 12	$ —	$ 4	$ 31	$ 29	$ 60
2015	16	19		7	42	18	60
2014	19	17		4	40	24	64
Capital expenditures:							
2016	$ 163	$ 107	$ 123	$ 59	$ 452	$ —	$ 452
2015	164	97	89	50	400		400
2014	188	89	55	34	366	3	369
Depreciation and amortization expense:							
2016	$ 118	$ 139	$ 173	$ 37	$ 467	$ —	$ 467
2015	120	128	107	40	395	1	396
2014	140	131	79	53	403	3	406

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 722	$ 2,133	$ 2,855
2015	704	$ 2,227	$ 2,931
2014	678	1,734	2,412

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2016	$ 2,124	$ 4,578	$ 6,702
2015	1,939	4,217	6,156
2014	1,852	4,932	6,784

Intercompany sales in Latin America totaled $195 million, $101 million and $0 for the years ended December 31, 2016, 2015, and 2014, respectively.

Operations outside the U.S. that accounted for more than 10% of consolidated net sales from continuing operations were in France (2015 — 10%, 2014 — 11%).

3. Inventories

Major classes of inventory are as follows:

	2016	2015
Finished goods	$ 827	$ 858
Raw materials	118	113
Operating supplies	38	36
	$ 983	$ 1,007

4. Equity Investments

At December 31, 2016 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50%	Glass container manufacturer
CO Vidrieria SARL ("COV")	50%	Glass container manufacturer
Rocky Mountain Bottle Company	50%	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25%	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50%	Glass container manufacturer
Vetri Speciali SpA	50%	Specialty glass manufacturer

Summarized information pertaining to the Company's equity affiliates follows:

	2016	2015	2014
Equity in earnings:			
Non-U.S.	$ 28	$ 23	$ 23
U.S.	32	37	41
Total	$ 60	$ 60	$ 64
Dividends received	$ 38	$ 53	$ 54

Summarized combined financial information for equity affiliates is as follows (unaudited):

	2016	2015
At end of year:		
Current assets	$ 451	$ 430
Non-current assets	1,025	959
Total assets	1,476	1,389
Current liabilities	200	203
Other liabilities and deferred items	368	211
Total liabilities and deferred items	568	414
Net assets	$ 908	$ 975

	2016	2015	2014
For the year:			
Net sales	$ 755	$ 719	$ 752
Gross profit	$ 182	$ 193	$ 198
Net earnings	$ 134	$ 139	$ 150

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2016, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed.

The Company made purchases of approximately $176 million and $161 million from equity affiliates in 2016 and 2015, respectively, and owed approximately $76 million and $66 million to equity affiliates as of December 31, 2016 and 2015, respectively.

There is a difference of approximately $12 million as of December 31, 2016, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2016, 2015 and 2014 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2014	$ 1,044	$ 734	$ 276	$ 5	$ 2,059
Translation effects	(118)	(11)	(37)		(166)
Balance as of December 31, 2014	926	723	239	5	1,893
Acquisition related adjustments		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	840	1,020	624	5	2,489
Acquisition related adjustments		15	26		41
Translation effects	(32)	3	(39)		(68)
Balance as of December 31, 2016	$ 808	$ 1,038	$ 611	$ 5	$ 2,462

The acquisition related adjustments in 2016 and 2015 primarily relate to the Vitro Acquisition (see Note 17).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2016, 2015 and 2014.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) using a two-step process. Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then Step 2 must be performed. Step 2 compares the implied fair value of goodwill with the

carrying amount of goodwill. Any excess of the carrying value of the goodwill over the implied fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 and the implied fair value of goodwill in Step 2 are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2016, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

On September 1, 2015, the Company acquired customer list intangibles as part of the Vitro Acquisition (see Note 17).

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Net intangible asset values were $464 million and $597 million for the years ended December 31, 2016 and 2015, respectively. Amortization expense for intangible assets was $39 million, $21 million and $1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Estimated amortization related to intangible assets through 2021 is as follows: 2017, $44 million; 2018, $44 million; 2019, $42 million; 2020, $41 million; and 2021, $39 million. No impairment existed on these assets at December 31, 2016.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Prepaid Expenses and Other Assets

Prepaid expenses and other current assets at December 31, 2016 and 2015 are as follows:

	2016	2015
Prepaid expenses	$ 38	$ 42
Value added taxes	46	195
Other	99	115
	$ 183	$ 352

Other assets (noncurrent) consist of the following at December 31, 2016 and 2015:

	2016	2015
Deferred tax assets	$ 189	$ 177
Deferred returnable packaging costs	115	110
Repair part inventories	107	118
Value added taxes	22	17
Capitalized software	31	28
Deferred finance fees	5	6
Other	69	71
	$ 538	$ 527

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $6 million, $9 million and $8 million for 2016, 2015 and 2014, respectively. Estimated amortization related to capitalized software through 2021 is as follows: 2017, $6 million; 2018, $6 million; 2019, $5 million; 2020, $5 million; and 2021, $4 million.

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2016 and 2015, the Company had entered into commodity forward contracts covering approximately 12,300,000 MM BTUs and 7,300,000 MM BTUs, respectively, primarily related to customer requests to lock the price of natural gas.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2016 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An unrecognized gain of $6 million at December 31, 2016 and an unrecognized loss of $4 million at December 31, 2015 related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings over the next twelve to twenty-four months. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2016 and 2015 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Amount of gain (loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of gain (loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2016	2015	2014	2016	2015	2014
$ 7	$ (4)	$ 3	$ —	$ (1)	$ 2

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use forward exchange

agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term forward exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2016 and 2015, the Company had outstanding forward exchange and option agreements denominated in various currencies covering the equivalent of approximately $490 million and $790 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2016, 2015 and 2014 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2016	2015	2014
Other expense, net	$ 6	$ 10	$ (8)

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, and (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year.

The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2016 and 2015:

		Fair Value	
	Balance Sheet Location	2016	2015
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	b	$ 6	$ —
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	a	$ 9	$ 14
Total asset derivatives		$ 15	$ 14
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ —	$ 3
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	c	5	2
Total liability derivatives		$ 5	$ 5

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs (as in the case of the European Asset Optimization and Asia Pacific Restructuring programs below) are presented separately. Minor initiatives are presented on a combined basis as Other Restructuring Actions. These restructuring initiatives taken by the Company are not related to the European Asset Optimization program or the Asia Pacific restructuring plan. When charges related to major programs are completed, remaining accrual balances are classified with Other Restructuring Actions.

European Asset Optimization

In 2011, the Company initiated the European Asset Optimization program to increase the efficiency and capability of its European operations and to better align its European manufacturing footprint with market and customer needs. This program involved making additional investments in certain facilities and addressing assets with higher cost structures. As part of this program, the Company recorded charges of $0, $0, and $1 million for the years ended 2016, 2015 and 2014, respectively for employee costs, write-down of assets, and environmental remediation related to decisions to close furnaces and manufacturing facilities in Europe. The Company recorded total cumulative charges of $127 million and does not expect to execute any further actions under this program.

Asia Pacific Restructuring

Since 2011, the Company has implemented a restructuring plan in its Asia Pacific segment, primarily related to aligning its supply base with lower demand in the region. As part of this plan, the Company recorded charges of $4 million, $5 million and $73 million for the years ended 2016, 2015 and 2014, respectively, for employee costs, write-down of assets, and pension charges related to furnace closures and additional restructuring activities. The Company recorded total cumulative charges of $224 million and does not expect to execute any further actions under this program.

Other Restructuring Actions

In 2016, the Company recorded charges of $92 million for other restructuring actions. These charges primarily represented employee costs, write-down of assets, and other exit costs of $64 million for a plant closures in Latin America, Europe and North America and $28 million related to other restructuring actions. The Company took certain other restructuring actions and recorded charges in 2015 of $58 million. These charges primarily related to employee costs, write-down of assets and other exit costs totaling $14 million for a plant closure and furnace closure in Latin America, $38 million for a plant closure in North America and $6 million for other restructuring actions. In 2014, the Company took certain other restructuring actions and recorded charges of $2 million for employee costs related to global headcount reduction initiatives.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2015 through December 31, 2015:

	European Asset Optimization	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2015	$ 12	$ 12	$ 36	$ 60
Charges		5	58	63
Write-down of assets to net realizable value		(4)	(27)	(31)
Net cash paid, principally severance and related benefits	(5)	(5)	(28)	(38)
Other, including foreign exchange translation	(4)	(1)	(6)	(11)
Balance at December 31, 2015	$ 3	$ 7	$ 33	$ 43

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2016 through December 31, 2016:

	Asia Pacific Restructuring	Other Restructuring Actions	Total Restructuring
Balance at January 1, 2016	$ 7	$ 36	$ 43
Charges	4	92	96
Write-down of assets to net realizable value		(28)	(28)
Net cash paid, principally severance and related benefits	(3)	(21)	(24)
Other, including foreign exchange translation	(1)	(3)	(4)
Balance at December 31, 2016	$ 7	$ 76	$ 83

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2016, the Company's estimates include approximately $65 million for employee benefits costs, $16 million for environmental remediation costs, and $2 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company participates in OI Inc.'s defined benefit pension plans for a substantial number of employees located in the United States. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. OI Inc.'s policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. Independent actuaries determine pension costs for each subsidiary of OI Inc. included in the plans; however, accumulated benefit obligation information and plan assets pertaining to each subsidiary have not been separately determined. As such, the accumulated benefit obligation and the plan assets related to the pension plans for domestic employees have been retained by another subsidiary of OI Inc. Net expense to results of operations for the Company's allocated portion of the domestic pension costs amounted to $23 million in 2016, $24 million in 2015 and $19 million in 2014.

OI Inc. also sponsors several defined contribution plans for all salaried and hourly U.S. employees of the Company. Participation is voluntary and participants' contributions are based on their compensation. OI Inc. matches contributions of participants, up to various limits, in substantially all plans. OI Inc. charges the Company for its share of the match. The Company's share of the contributions to these plans amounted to $32 million in 2016, $27 million in 2015 and $17 million in 2014.

The Company also has defined benefit pension plans covering a substantial number of employees in several non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the non-U.S. pension benefit obligations for the year are as follows:

	2016	2015
Obligations at beginning of year	$ 1,210	$ 1,311
Change in benefit obligations:		
Service cost	16	15
Interest cost	44	44
Actuarial (gain) loss, including the effect of change in discount rates	160	(9)
Acquisitions		37
Participant contributions	2	1
Benefit payments	(71)	(58)
Other	3	
Foreign currency translation	(129)	(131)
Net change in benefit obligations	25	(101)
Obligations at end of year	$ 1,235	$ 1,210

The changes in the fair value of the non-U.S. pension plans' assets for the year are as follows:

	2016	2015
Fair value at beginning of year	$ 1,012	$ 1,094
Change in fair value:		
Actual gain (loss) on plan assets	139	42
Benefit payments	(71)	(58)
Employer contributions	38	15
Participant contributions	2	1
Acquisitions		22
Foreign currency translation	(111)	(104)
Other	2	
Net change in fair value of assets	(1)	(82)
Fair value at end of year	$ 1,011	$ 1,012

The funded status of the non-U.S. pension plans at year end are as follows:

	2016	2015
Plan assets at fair value	$ 1,011	$ 1,012
Projected benefit obligations	1,235	1,210
Plan assets less than projected benefit obligations	(224)	(198)
Items not yet recognized in pension expense:		
Actuarial loss	352	320
Prior service cost (credit)	(1)	(1)
	351	319
Net amount recognized	$ 127	$ 121

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	2016	2015
Pension assets	$ 40	$ 32
Current pension liability, included with other accrued liabilities	(7)	(6)
Pension benefits	(257)	(224)
Accumulated other comprehensive loss	351	319
Net amount recognized	$ 127	$ 121

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	2016	2015
Current year actuarial (gain) loss	$ 87	$ 15
Amortization of actuarial loss	(12)	(15)
Settlement		
	75	—
Translation	(43)	(31)
	$ 32	$ (31)

The components of the non-U.S. pension plans' net pension expense for the year are as follows:

	2016	2015	2014
Service cost	$ 16	$ 15	$ 23
Interest cost	44	44	69
Expected asset return	(65)	(67)	(86)
Amortization:			
Actuarial loss	13	15	18
Prior service credit			—
Net amortization	13	15	18
Net expense	$ 8	$ 7	$ 24

On October 1, 2014, the Company settled the liability associated with its pension plan in the Netherlands, resulting in a settlement charge of approximately $35 million. Non-U.S. pension expense excludes $3 million of pension settlement costs that were recorded in restructuring expense in 2014. The table above excludes these charges.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2017:

Amortization:	
Actuarial loss	$ 16
Prior service cost	
Net amortization	$ 16

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds Fair Value of Plan Assets		Accumulated Benefit Obligation Exceeds Fair Value of Plan Assets	
	2016	2015	2016	2015
Projected benefit obligations	$ 897	$ 876	$ 897	$ 876
Accumulated benefit obligation	867	850	867	850
Fair value of plan assets	632	645	632	645

The weighted average assumptions used to determine benefit obligations are as follows:

	2016	2015
Discount rate	2.94%	3.68%
Rate of compensation increase	2.90%	2.84%

The weighted average assumptions used to determine net periodic pension costs are as follows:

	2016	2015	2014
Discount rate	3.68%	3.65%	4.14%
Rate of compensation increase	2.84%	2.89%	3.31%
Expected long-term rate of return on assets	7.15%	7.21%	7.23%

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above. For 2016, the Company's weighted average expected long-term rate of return on assets was 7.15% for the non-U.S. plans. In developing this assumption, the Company considered its historical 10-year average return (through December 31, 2016) and evaluated input from its third party pension plan asset consultants, including their review of asset class return expectations

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

In accordance with the Company's adoption of ASU No. 2015-07 in 2016, certain investments measured at net asset value ("NAV"), as a practical expedient for fair value, have been excluded from the fair value hierarchy. The fair value measurements tables presented below have been amended to conform to the current year presentation under ASU No. 2015-07. See Note 1 for more information.

In 2016, the non-U.S. plan assets consisted of approximately 41% equity securities, 42% debt securities, and 17% real estate and other. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2016 and 2015:

	2016				2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 24	$ —	$ —	$ 24	$ 30	$ —	$ —	$ 30
Equity securities				—				—
Debt securities	37	2		39	16			16
Real estate			4	4			5	5
Other		37	6	43		24	6	30
Total	$ 61	$ 39	$ 10		$ 46	$ 24	$ 11	
Investments measured at net asset value				$ 901				$ 931
Total non-U.S. assets at fair value				$ 1,011				$ 1,012

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2016	2015
Beginning balance	$ 11	$ 5
Net increase (decrease)	(1)	6
Ending balance	$ 10	$ 11

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2016.

In order to maintain minimum funding requirements, the Company is required to make contributions to its non-U.S. defined benefit pension plans of approximately $24 million in 2017.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2017	$ 53
2018	51
2019	54
2020	57
2021	60
2022 - 2026	343

Postretirement Benefits Other Than Pensions

OI Inc. provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. OI Inc. uses a December 31 measurement date to measure its postretirement benefit obligations.

The Company's net periodic postretirement benefit income, as allocated by OI Inc., for domestic employees was $2 million, $2 million, and $1 million at December 31, 2016, 2015 and 2014, respectively.

The Company also has postretirement benefit plans covering substantially all employees in Canada. The following tables relate to the Company's postretirement benefit plans in Canada.

The changes in the postretirement benefit obligations for the year are as follows:

	2016	2015
Obligations at beginning of year	$ 68	$ 81
Change in benefit obligations:		
Service cost	1	1
Interest cost	3	3
Actuarial (gain) loss, including the effect of changing discount rates	9	(1)
Benefit payments	(2)	(3)
Foreign currency translation	2	(13)
Net change in benefit obligations	13	(13)
Obligations at end of year	$ 81	$ 68

The funded status of the postretirement benefit plans at year end is as follows:

	2016	2015
Postretirement benefit obligations	$ (81)	$ (68)
Items not yet recognized in net postretirement benefit cost:		
Actuarial gain (loss)	(6)	3
Net amount recognized	$ (87)	$ (65)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	2016	2015
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (3)	$ (2)
Nonpension postretirement benefits	(78)	(66)
Accumulated other comprehensive income (loss)	(6)	3
Net amount recognized	$ (87)	$ (65)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2016 and 2015 as follows (amounts are pretax):

	2016	2015
Current year actuarial (gain) loss	$ 9	$ —

The components of the net postretirement benefit cost for the year are as follows:

	2016	2015	2014
Service cost	$ 1	$ 1	$ 1
Interest cost	3	3	4
Net postretirement benefit cost	$ 4	$ 4	$ 5

The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	2016	2015	2014
Accumulated postretirement benefit obligation	3.55%	3.80%	3.75%
Net postretirement benefit cost	3.80%	3.75%	4.47%

The weighted average assumed health care cost trend rates at December 31 are as follows:

	2016	2015
Health care cost trend rate assumed for next year	5.00%	5.00%
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	N/A	N/A

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	1-Percentage Point	
	Increase	Decrease
Effect on total of service and interest cost	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	13	(10)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	
2017	$ 3
2018	3
2019	3
2020	3
2021	3
2022 - 2026	18

10. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2016	2015	2014
U.S.	$ 185	$ 125	$ 231
Non-U.S.	383	269	271
	$ 568	$ 394	$ 502

Discontinued operations	2016	2015	2014
U.S.	$ —	$ —	$ —
Non-U.S.	(7)	(4)	(4)
	$ (7)	$ (4)	$ (4)

The provision (benefit) for income taxes consists of the following:

	2016	2015	2014
Current:			
U.S.	$ 8	$ 9	$ 8
Non-U.S.	123	85	103
	131	94	111
Deferred:			
U.S.	(1)	5	—
Non-U.S.	(7)	2	(18)
	(8)	7	(18)
Total:			
U.S.	7	14	8
Non-U.S.	116	87	85
Total	$ 123	$ 101	$ 93

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2016	2015	2014
Tax provision on pretax earnings (loss) from continuing operations at statutory U.S. Federal tax rate	$ 199	$ 138	$ 177
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates under U.S. rates	(22)	(12)	(22)
Changes in valuation allowance	8	21	(24)
Withholding tax, net	20	18	18
Non-deductible acquisition costs			
U.S. tax on intercompany dividends and interest	3	16	1
U.S. tax consolidation benefit	(74)	(70)	(47)
Tax exempt income	(2)	(3)	(5)
Tax law changes	(3)	(3)	
Tax credit	(17)	(14)	(3)
Change in tax reserves	8	5	(13)
Mexico inflationary adjustments	6	3	
Other items	(3)	2	11
Provision for income taxes	$ 123	$ 101	93

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2016 and 2015 are as follows:

	2016	2015
Deferred tax assets:		
Accrued postretirement benefits	$ 21	$ 18
Foreign tax credit	414	389
Operating and capital loss carryovers	280	296
Other credit carryovers	14	13
Accrued liabilities	75	68
Pension liability	30	27
Other	51	38
Total deferred tax assets	885	849
Deferred tax liabilities:		
Property, plant and equipment	112	112
Intangibles and deferred software	119	131
Other	9	26
Total deferred tax liabilities	240	269
Valuation allowance	(600)	(603)
Net deferred taxes	$ 45	$ (23)

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2016 and 2015 as follows:

	2016	2015
Other assets	$ 189	$ 177
Deferred taxes	(144)	(200)
Net deferred taxes	$ 45	$ (23)

The Company reviews the likelihood that it will realize the benefit of its deferred tax assets and therefore the need for valuation allowances on a quarterly basis, or whenever events indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset is considered, along with other positive and negative evidence.

In certain foreign jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

At December 31, 2016, before valuation allowance, the Company had unused foreign tax credits of $414 million expiring in 2017 through 2026, and research tax credit of $14 million expiring from 2019 to 2036, which will be available to offset future income tax. Approximately $151 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $129 million expiring between 2017 and 2036.

At December 31, 2016, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.2 billion. The Company intends to reinvest these earnings indefinitely in the non-U.S. operations. It is not practicable to estimate the U.S. and foreign tax which would be payable should these earnings be distributed. Deferred taxes are provided for earnings of non-U.S. jurisdictions when the Company plans to remit those earnings.

The Company is included in OI Inc.'s consolidated tax returns for U.S. federal and certain state income tax purposes. The consolidated group has net operating losses, capital losses, alternative minimum tax credits, foreign tax credits and research and development credits available to offset future U.S. Federal income tax. Income taxes are allocated to the Company on a basis consistent with separate returns.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense. The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014:

	2016	2015	2014
Balance at January 1	$ 74	$ 77	$ 100
Additions and reductions for tax positions of prior years		1	(13)
Additions based on tax positions related to the current year	15	10	10
Reductions due to the lapse of the applicable statute of limitations	(3)	(5)	(8)
Reductions due to settlements	(12)	(1)	(1)
Foreign currency translation		(8)	(11)
Balance at December 31	$ 74	$ 74	$ 77
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 66	$ 67	$ 70
Accrued interest and penalties at December 31	$ 23	$ 25	$ 29
Interest and penalties included in tax expense for the years ended December 31	$ (2)	$ (1)	$ (2)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably possible that the estimated liability could decrease up to $11 million within the next 12 months. This is primarily the result of audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under examination in various tax jurisdictions in which it operates, including Argentina, Bolivia, Brazil, China, Canada, Colombia, Ecuador, France, Germany, Indonesia, and Italy. The years under examination range from 2006 through 2014. The Company has received tax assessments in excess of established reserves. The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. During 2016, the Company concluded income tax audits in several jurisdictions, including the Czech Republic, Germany, Italy, and Hungary.

11. External Debt

The following table summarizes the external long-term debt of the Company at December 31, 2016 and 2015:

	2016	2015
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,395	1,546
Term Loan A (€279 million at December 31, 2016)	282	301
Term Loan B		563
Senior Notes:		
6.75%, due 2020 (€500 million)	523	542
4.875%, due 2021 (€330 million)	345	357
5.00%, due 2022	495	494
5.875%, due 2023	682	680
3.125%, due 2024 (€500 million)	520	
5.375%, due 2025	297	296
6.375%, due 2025	294	293
Capital leases	55	52
Other	20	30
Total long-term debt	4,908	5,154
Less amounts due within one year	32	67
Long-term debt	$ 4,876	$ 5,087

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on February 3, 2016 (the "Amended Agreement"). In connection with the closing of the Vitro Acquisition on September 1, 2015 (see Note 17), the Company incurred $1,250 million of senior secured incremental term loan facilities, comprised of (i) a $675 million term loan A facility on substantially the same terms and conditions (including as to maturity) as the term loan A facility in the Amended Agreement and (ii) a $575 million term loan B facility, which was subsequently repaid in full in November 2016 as described below.

At December 31, 2016, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, a $1,575 million term loan A facility ($1,395 million net of debt issuance costs), and a €279 million term loan A facility ($282 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2016, the Company had unused credit of $884 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2016 was 2.39%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents, by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of (i) 4.5x for the four fiscal quarters ending December 31, 2016, March 31, 2017, June 30, 2017 and September 30, 2017, and (ii) 4.0x for the fourth fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2016, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

Also, in connection with the Vitro Acquisition, during August 2015, the Company issued senior notes with a face value of $700 million that bear interest at 5.875% and are due August 15, 2023 (the "Senior Notes due 2023") and senior notes with a face value of $300 million that bear interest at 6.375% and are due August 15, 2025 (together with the Senior Notes due 2023, the "2015 Senior Notes"). The 2015 Senior Notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds from the 2015 Senior Notes, after deducting the debt discount and debt issuance costs, totaled approximately $972 million and were used to finance, in part, the Vitro Acquisition.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting the debt discount and debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement.

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2016 and 2015 is as follows:

	2016	2015
Balance (included in short-term loans)	$ 152	$ 158
Weighted average interest rate	0.74%	1.21%

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2021 are as follows: 2017, $33 million; 2018, $287 million; 2019, $101 million; 2020, $2,074 million; and 2021, $354 million.

Fair values at December 31, 2016, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 526	$ 120.63	$ 635
4.875%, due 2021 (€330 million)	347	114.00	396
5.00%, due 2022	500	103.49	517
5.875%, due 2023	700	105.37	738
3.125%, due 2024 (€500 million)	526	100.01	526
5.375%, due 2025	300	101.17	304
6.375%, due 2025	300	106.28	319

12. Contingencies

Certain litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are nonroutine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based including additional information, negotiations, settlements, and other events. The ultimate legal and financial liability of the Company in respect to this pending litigation cannot reasonably be estimated. However, the Company believes, based on its examination and review of such matters and experience to date, that such ultimate liability will not have a material adverse effect on its results of operations or financial condition.

The Company's joint venture in China had been involved in litigation with its partner regarding whether the joint venture should be dissolved. Following an ownership change in 2016 with respect to the joint venture partner, this litigation has been withdrawn.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Loss
Balance on January 1, 2015	$ (55)	$ 2	$ (255)	$ (308)
Change before reclassifications	(513)	(4)	27	(490)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	15 (b)	14
Translation effect			(31)	(31)
Tax effect		(1)	2	1
Other comprehensive income (loss) attributable to the Company	(513)	(6)	13	(506)
Balance on December 31, 2015	(568)	$ (4)	$ (242)	$ (814)
Change before reclassifications	(220)	7	(96)	(309)
Amounts reclassified from accumulated other comprehensive income		6 (a)	18 (b)	24
Translation effect			25	25
Tax effect			15	15
Other comprehensive income (loss) attributable to the Company	(220)	13	(38)	(245)
Balance on December 31, 2016	$ (788)	9	(280)	(1,059)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Other Expense, net

Other expense, net for the years ended December 31, 2016, 2015 and 2014 included the following:

	2016	2015	2014
Restructuring, asset impairment and other charges	$ 102	$ 75	$ 68
Intangible amortization expense	39	21	1
Impairment of equity investment	25		
Gain on China land compensation	(71)		
Royalty income	(13)	(12)	(12)
Strategic transaction costs		4	
Acquisition-related fair value intangible adjustments		10	
Non-income tax charge			69
Foreign currency exchange loss (gain)	6	(10)	(2)
Other expense (income)	(10)	(11)	15
	$ 78	$ 77	$ 138

In 2016, the Company evaluated the future estimated earnings and cash flow of an equity investment and determined that it was other-than-temporarily impaired. As such, the Company recorded an impairment charge of $25 million to reduce its carrying value down to its estimated fair value. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

In 2014, the Company recorded a charge of $69 million resulting from a non-income tax assessment from a foreign tax authority.

15. Operating Leases

Rent expense attributable to all warehouse, office buildings, and equipment operating leases was $76 million in 2016, $68 million in 2015 and $53 million in 2014. Minimum future rentals under operating leases are as follows: 2017, $61 million; 2018, $42 million; 2019, $28 million; 2020, $18 million; 2021, $12 million; and 2022 and thereafter, $18 million.

16. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2016	2015	2014
Decrease (increase) in current assets:			
Receivables	$ (25)	$ (20)	$ 83
Inventories	13	(13)	(27)
Prepaid expenses and other	148	(8)	29
Increase (decrease) in current liabilities:			
Accounts payable and accrued liabilities	(91)	139	48
Salaries and wages	20	16	12
U.S. and foreign income taxes	23	(13)	13
	$ 88	$ 101	$ 158

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2016 and 2015, the amount of receivables sold by the Company was $318 million and $317 million, respectively. Any continuing involvement with the sold receivables is immaterial.

	2016	2015	2014
Interest paid in cash	$ 241	$ 207	$ 179
Income taxes paid in cash (all non-U.S)	99	101	101

Cash interest for the years ended December 31, 2016, 2015 and 2014 includes $9 million, $32 million and $9 million of note repurchase premiums, respectively.

17. Business Combinations

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion in cash, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $608 million of incremental net sales and $122 million of incremental segment operating profit in the year ended December 31, 2016. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

The Company financed the Vitro Acquisition with the proceeds from a senior notes offering, cash on hand and the incremental term loan facilities (see Note 11).

The total purchase price was allocated to the tangible and identifiable intangible assets and liabilities based upon their respective fair values. The purchase agreement contained customary provisions for working capital adjustments, which the Company resolved with the seller in the first quarter of 2016. The Company completed the purchase price allocation process in the third quarter of 2016. The following table summarizes the fair value of the assets and liabilities assumed on September 1, 2015 and subsequent adjustments identified through the purchase price allocation process and recorded through the measurement period:

	September 1, 2015	Measurement Period Adjustments	September 30, 2016
Cash	$ 17	$ —	$ 17
Other current assets	344	(10)	334
Goodwill	1,073	(236)	837
Customer list intangibles	406	202	608
Net property, plant and equipment	597	48	645
Total assets	2,437	4	2,441
Current liabilities	93	(7)	86
Long-term debt	11		11
Long-term liabilities	36	11	47
Net assets acquired	$ 2,297	$ —	$ 2,297

The fair value of the tangible assets was estimated utilizing income and market approaches, considering remaining useful life. The customer list intangible asset includes the Company's established relationships with its customers and the ability of these customers to generate future economic profits for the Company. The value assigned to customer list intangibles is based on the present value of future earnings attributable to the asset group after recognition of required returns to other contributory assets.

Recognized goodwill is attributable to the assembled workforce, expected synergies and other intangible assets that do not qualify for separate recognition. The Vitro Acquisition goodwill is not deductible for tax purposes.

The balance sheet adjustments identified above did not result in any significant adjustments to the periods' income statements.

18. Pro Forma Information – Vitro Acquisition

Had the Vitro Acquisition, described in Note 17 and the related financing described in Note 11, occurred at the beginning of each respective period, unaudited pro forma consolidated net sales and earnings from continuing operations would have been as follows:

	Year Ending December 31, 2015			
	As Reported	Acquisition Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 270	$ 79	$ (46)	$ 303

19. Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") ruled that a subsidiary of the Company is free to pursue the enforcement of a prior arbitration award against Venezuela. That award amounts to more than $485 million after including interest from the date of the expropriation by Venezuela (October 26, 2010). Venezuela's application to annul the award is still pending, although the annulment proceedings were suspended in October 2016 because Venezuela has not paid its fees owed to ICSID. If the proceeding is stayed for non-payment for a consecutive period in excess of six months, ICSID's Secretary General could move that the committee discontinue the annulment proceeding altogether. The Company intends to take appropriate steps to vigorously enforce and collect the award, which is enforceable in approximately 150 member states that are party to the ICSID Convention. However, even with the lifting of the stay of enforcement, the Company recognizes that the collection of the award may present significant practical challenges. Because the award has yet to be satisfied and the annulment proceeding is pending, the Company is unable at this stage to reasonably predict the efforts that will be necessary to successfully enforce collection of the award, the amount of the award or the timing of any such collection efforts. Therefore, the Company has not recognized this award in its financial statements.

The loss from discontinued operations of $7 million, $4 million and $4 million, for the years ended December 31, 2016, 2015 and 2014, respectively, relates to ongoing costs for the Venezuelan expropriation.

20. Guarantees of Debt

OI Group and the Company guarantee OI Inc.'s senior debentures on a subordinated basis. The fair value of the OI Inc. debt being guaranteed was $266 at December 31, 2016.

21. Related Party Transactions

Charges for administrative services are allocated to the Company by OI Inc. based on an annual utilization level. Such services include compensation and benefits administration, payroll processing, use of certain general accounting systems, auditing, income tax planning and compliance, and treasury services.

Allocated costs also include charges associated with OI Inc.'s equity compensation plans. A substantial number of the options, restricted share units and performance vested restricted share units granted under these plans have been granted to key employees of another subsidiary of OI Inc., some of whose compensation costs, including stock-based compensation, are included in an allocation of costs to all operating subsidiaries of OI Inc., including the Company.

Management believes that such transactions are on terms no less favorable to the Company than those that could be obtained from unaffiliated third parties.

The following information summarizes the Company's significant related party transactions:

	Year ended December 31,		
	2016	2015	2014
Revenues:			
Sales to affiliated companies	$ —	$ —	$ —
Expenses:			
Administrative services	$ 2	$ 2	$ 2
Corporate management fee	75	74	75
Total expenses	$ 77	$ 76	$ 77

The above expenses are recorded in the results of operations as follows:

	Year ended December 31,		
	2016	2015	2014
Cost of goods sold	$ —	$ —	$ —
Selling, general and administrative expenses	77	76	77
Total expenses	$ 77	$ 76	$ 77

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

OWENS-ILLINOIS, INC.
(Registrant)

By: /s/ MARY BETH WILKINSON
Mary Beth Wilkinson
Attorney-in-fact

Date: February 10, 2017

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Owens-Illinois, Inc. and in the capacities and on the dates indicated.

Signatures	Title
Andres A. Lopez	President and Chief Executive Officer (Principal Executive Officer)
Jan A. Bertsch	Senior Vice President and Chief Financial Officer (Principal Financial Officer; Principal Accounting Officer)
Carol A. Williams	Chairman of the Board
Gary F. Colter	Director
Joseph D. DeAngelo	Director
Gordon J. Hardie	Director
Peter S. Hellman	Director
Anastasia D. Kelly	Director
John J. McMackin, Jr.	Director
Alan J. Murray	Director
Hari N. Nair	Director
Hugh H. Roberts	Director
Dennis K. Williams	Director

By: /s/ Mary Beth Wilkinson
Mary Beth Wilkinson
Attorney-in-fact

Date: February 10, 2017

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OWENS-ILLINOIS, INC.

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS (CONSOLIDATED)

Years ended December 31, 2016, 2015, and 2014

(Millions of Dollars)

Reserves deducted from assets in the balance sheets:

Allowances for losses and discounts on receivables

	Balance at beginning of period	Additions: Charged to costs and expenses	Additions: Other	Deductions (Note 1)	Balance at end of period
2016	$ 29	$ 15	$ (2)	$ (10)	$ 32
2015	$ 34	$ 12	$ (5)	$ (12)	$ 29
2014	$ 39	$ 15	$ (12)	$ (8)	$ 34

(1) Deductions from allowances for losses and discounts on receivables represent uncollectible notes and accounts written off.

Valuation allowance on net deferred tax assets

	Balance at beginning of period	Charged to income	Charged to other comprehensive income	Foreign currency translation	Other	Balance at end of period
2016	$ 1,135	$ 3	$ (32)	$ (3)	$ (9)	$ 1,094
2015	$ 1,223	$ 1	$ 5	$ (20)	$ (74)	$ 1,135
2014	$ 1,209	$ (2)	$ 55	$ (15)	$ (24)	$ 1,223

EXHIBIT 12

OWENS-ILLINOIS, INC.
COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES
(Millions of dollars, except ratios)

	Years ended December 31,			
	2016	2015	2014	2013
Earnings from continuing operations before income taxes	$ 356	$ 268	$ 307	$ 468
Less: Equity earnings	(60)	(60)	(64)	(67)
Add: Total fixed charges deducted from earnings	284	264	238	242
Dividends received from equity investees	38	53	54	67
Earnings available for payment of fixed charges	$ 618	$ 525	$ 535	$ 710
Fixed charges (including the Company's proportional share of 50% owned associates):				
Interest expense	$ 279	$ 259	$ 235	$ 239
Portion of operating lease rental deemed to be interest	5	5	3	3
Total fixed charges deducted from earnings	$ 284	$ 264	$ 238	$ 242
Ratio of earnings to fixed charges	2.2	2.0	2.2	2.9

EXHIBIT 21

SUBSIDIARIES OF OWENS-ILLINOIS, INC.

Owens-Illinois, Inc. had the following subsidiaries at December 31, 2016 (subsidiaries are indented following their respective parent companies):

Name	State/Country of Incorporation or Organization
Owens-Illinois Group, Inc.	Delaware
OI General Finance Inc.	Delaware
OI General FTS Inc.	Delaware
OI Castalia STS Inc.	Delaware
OI Levis Park STS Inc.	Delaware
Owens-Illinois General Inc.	Delaware
Owens Insurance, Ltd.	Bermuda
Universal Materials, Inc.	Ohio
OI Advisors, Inc.	Delaware
OI Securities, Inc.	Delaware
OI Transfer, Inc.	Delaware
Maumee Air Associates Inc.	Delaware
OI Australia Inc.	Delaware
Continental PET Holdings Pty. Ltd.	Australia
ACI America Holdings Inc.	Delaware
ACI Ventures, Inc.	Delaware
Owens-Brockway Packaging, Inc.	Delaware
Owens-Brockway Glass Container Inc.	Delaware
O-I Americas Holding LLC	Delaware
O-I Packaging Solutions LLC	Delaware
O-I Bolivia Holdings Limited	United Kingdom
Vidrio Lux S.A.	Bolivia
OI Andover Group, Inc.	Delaware
The Andover Group Inc.	Delaware
Brockway Realty Corporation	Pennsylvania
NHW Auburn, LLC	Delaware
OI Auburn Inc.	Delaware
SeaGate, Inc.	Ohio
SeaGate II, Inc.	Ohio
SeaGate III, Inc.	Ohio
OIB Produvisa Inc.	Delaware
OI California Containers Inc.	Delaware
OI Puerto Rico STS Inc.	Delaware
O-I Caribbean Sales & Distibution Inc.	Delaware
O-I Latam HQ, Inc.	Delaware
Bolivian Investments, Inc.	Delaware
Fabrica Boliviana de Vidrios S.A.	Bolivia
OI International Holdings Inc.	Delaware
O-I Glass C.V.	Netherlands
O-I Holding LLC	Delaware
O-I Global Holdings LLC	Delaware
O-I Global Holdings C.V.	Netherlands
O-I Americas LLC	Delaware

Name	State/Country of Incorporation or Organization
O-I Americas C.V.	Netherlands
O-I Mexico Holdings I B.V.	Netherlands
O-I Mexico Holdings II B.V.	Netherlands
Envases de Vidrio de las Americas, S. de R.L. de C.V.	Mexico
Especialidades Operativas de America, S. de R.L. de C.V.	Mexico
Glass International OISPV, S.A.P.I. de C.V.	Mexico
Owens America, S. de R.L. de C.V.	Mexico
Owens Vimosa, S. de R.L. de C.V.	Mexico
Owens Vigusa, S. de R.L. de C.V.	Mexico
Owens Virreyes, S. de R.L. de C.V.	Mexico
Owens Viquesa, S. de R.L. de C.V.	Mexico
Owens Vitolsa, S. de R.L. de C.V.	Mexico
OI Global C.V.	Netherlands
OI Hungary LLC	Delaware
O-I Manufacturing Hungary Limited	Hungary
O-I Sales & Distribution Hungary Kft.	Hungary
O-I Ecuador LLC	Ohio
Cristaleria del Ecuador, S.A.	Ecuador
OI European Group B.V.	Netherlands
Owens-Illinois Singapore Pte. Ltd.	Singapore
OI China LLC	Delaware
Wuhan Owens Glass Container Company Limited	China
ACI Beijing Limited	Hong Kong
OI (Tianjin) Glass Co. Ltd.	China
Owens-Illinois Services H.K. Limited	Hong Kong
ACI Guangdong Limited	Hong Kong
ACI Guangdong Glass Company Limited	China
ACI Shanghai Limited	Hong Kong
ACI (Shanghai) Glass Company Limited	China
Owens-Illinois (HK) Limited	Hong Kong
O-I (Shanghai) Management Co Ltd.	China
O-I Zhaoqing Glass Co. Ltd.	China
O-I Sihui Glass Recycling Co. Ltd.	China
Owens-Illinois (Australia) Pty Ltd	Australia
ACI Packaging Services Pty Ltd.	Australia
ACI Operations Pty. Ltd.	Australia
ACI International Pty Ltd	Australia
ACI Glass Packaging Penrith Pty Ltd.	Australia
PT Kangar Consolidated Industries	Indonesia
ACI Operations NZ Limited	New Zealand
O-I Asia-Pacific Holdings	Mauritius
O-I Sales and Distribution Netherlands B.V.	Netherlands
O-I Europe Sarl	Switzerland
O-I Sales and Distribution UK Limited.	United Kingdom
O-I Sales and Distribution Poland Sp Z.o.o.	Poland
O-I Business Service Center Sp. Z.o.o.	Poland
O-I Manufacturing Poland S.A.	Poland
UGG Holdings Ltd.	United Kingdom

Name	State/Country of Incorporation or Organization
O-I Overseas Management Company Ltd.	Delaware
United Glass Group Ltd.	United Kingdom
O-I Manufacturing (UK) Limited	United Kingdom
O-I Sales and Distribution Spain SL.	Spain
Vidrieria Rovira, S. L.	Spain
OI Spanish Holdings B.V.	Netherlands
Owens-Illinois Peru S. A.	Peru
O-I Manufacturing Italy S.p.A.	Italy
O-I Manufacturing Czech Republic A.S.	Czech Republic
O-I Sales and Distribution Czech Republic s.r.o.	Czech Republic
San Domenico Vetraria S.r.l.	Italy
O-I Sales and Distribution Italy S.r.l.	Italy
O-I Manufacturing Netherlands B.V.	Netherlands
Veglarec B.V.	Netherlands
O-I Europe SAS	France
O-I Manufacturing France SAS	France
O-I Sales and Distribution France SAS	France
O-I Distribution SO.	France
Champagne Emballage	France
O-I Glasspack Beteiligungs & Verwaltungsgesellschaft GmbH.	Germany
OI Glasspack GmbH & Co. KG	Germany
O-I Sales and Distribution Germany GmbH.	Germany
OI Canada Holdings B.V.	Netherlands
O-I Canada Corp.	Canada
Manufacturera de Vidrios Planos, C.A.	Venezuela
Owens-Illinois de Venezuela, C. A.	Venezuela
Fabrica de Vidrio Los Andes, C. A.	Venezuela
CMC S.A.	Colombia
O-I Latam Services S.A.S.	Colombia
Cristaleria Peldar, S.A.	Colombia
Cristar S.A.	Colombia
Industria de Materias Primas S.A.	Colombia
Vidrieria Fenicia	Colombia
Owens-Illinois do Brasil Industria e Comercio S.A.	Brazil
Mineracao Silminas Ltda.	Brazil
Mineracao Descalvado Ltda.	Brazil
OI Finnish Holdings Oy	Finland
O-I Sales and Distribution Finland OY.	Finland
O-I Sales and Distribution LT	Lithuania
O-I Production Estonia AS	Estonia
O-I Sales and Distribution Estonia OU.	Estonia
O-I GMEC Lurin srl	Peru
O-I Jaroslaw Machine Service Center	Poland
Owens-Illinois Argentina S.A.	Argentina

DIRECTORS AND OFFICERS

Directors

Carol A. Williams
Chairman of the Board
Special Advisor to the Chief Executive Officer(retired), Dow Chemical Company

Gary F. Colter
President, CRS Inc.

Joseph J. DeAngelo
Chairman of the Board, President and Chief Executive Officer, HD Supply Holdings Inc.

Gordon J. Hardie
Managing Director, Bunge Food & Ingredients

Peter S. Hellman
President and Chief Financial and Administrative Officer (retired), Nordson Corporation

Anastasia D. Kelly
Co-Managing Partner (Americas), DLA Piper

Andres A. Lopez
President and Chief Executive Officer, Owens Illinois

John J. McMackin, Jr.
Principal, Williams & Jensen, PLLC

Alan J. Murray
Managing Board Member for North America (retired), Heidelberg Cement AG

Hari N. Nair
Chief Executive Officer, Anitar Investments LLC

Hugh H. Roberts
President (retired), Kraft Foods International Commercial

Dennis K. Williams
Chairman of the Board (retired), IDEX Corporation

Officers

Andres A. Lopez
President and Chief Executive Officer

Miguel I. Alvarez
President, O-I Latin America

James W. Baehren
Senior Vice President of Corporate Development and Special Advisor to the Chief Executive Officer

Jan A. Bertsch
Senior Vice President and Chief Financial Officer

Tim M. Connors
President, O-I Asia Pacific

Sergio B. O. Galindo
President, O-I North America

John A. Haudrich
Senior Vice President and Chief Strategy and Integration Officer

Paul A. Jarrell
Senior Vice President and Chief Administrative Officer

Vitaliano Torno
President, O-I Europe

MaryBeth Wilkinson
Senior Vice President, General Counsel and Corporate Secretary

COMPANY INFORMATION

Exchange Listing
Owens-Illinois common stock (symbol OI) is listed on the New York Stock Exchange.

Transfer Agent for Common Stock
Computershare Trust Company, N.A.
P.O. Box 30170
College Station, TX 77842-3170

Private couriers and registered mail:
211 Quality Circle, Suite 210
College Station, TX 77845

Computershare website:
http://www.computershare.com/investor
Phone: (781) 575-2724 or 1-877-373-6374
Hearing-impaired: TDD 1-800-952-9245

Any inquiries regarding your account or certificates should be referred to Computershare Trust Company, N.A.

Trustees
U.S. Bank, N.A.
Global Corporate Trust Services
60 Livingston Avenue
EP-MN-WS3C
St. Paul, MN 55107-1419

5.00 % Senior Notes, due 2022
5.375 % Senior Notes, due 2025
5.875% Senior Notes, due 2023
6.375% Senior Notes, due 2025

The Bank of New York
101 Barclay Street
New York, NY 10286

7.80% Senior Debentures, due 2018

Deutsche Trustee Company Limited
Winchester House
1 Great Winchester Street
London, England EC2N 2DB

6.75% Senior Notes, due 2020
4.875% Senior Notes, due 2021
3.125% Senior Notes, due 2024

Annual Meeting
The annual meeting of share owners will be held at 9:00 a.m. on Thursday, May 11, 2017, in Plaza 2 of the O-I World Headquarters Campus, Perrysburg, OH.

Forms 10-K and 10-Q
The Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, filed with the Securities and Exchange Commission, may be obtained without charge by contacting:

Owens-Illinois, Inc.
Investor Relations
One Michael Owens Way
Perrysburg, OH 43551
Phone: (567) 336-2400

These reports are also available without charge on the Company's website at www.o-i.com

Website
For further information about O-I, visit the Company's website at www.o-i.com

Annual Certifications
The most recent certifications by the Chief Executive Officer and the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Company's Form 10-K. The Company has also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303.12(a) of the New York Stock Exchange Listed Company Manual.

Corporate Headquarters
Owens-Illinois, Inc.
One Michael Owens Way
Perrysburg, OH 43551

10-K

YEAR ENDING **12.31.2017**

Owens-Illinois, Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended
December 31, 2017
or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-9576

OWENS-ILLINOIS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**22-2781933**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
One Michael Owens Way, Perrysburg, Ohio	**43551**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(567) 336-5000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.01 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of " large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐
(Do not check if a smaller reporting company)

Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value (based on the consolidated tape closing price on June 30, 2017) of the voting and non-voting common equity held by non-affiliates of Owens-Illinois, Inc. was approximately $2,738,141,000. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the Company. Such interpretation is not intended to be, and should not be construed to be, an admission by Owens-Illinois, Inc. or such directors or executive officers of the Company that such directors and executive officers of the Company are "affiliates" of Owens-Illinois, Inc., as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value of Owens-Illinois, Inc. outstanding as of January 31, 2018 was 163,107,627.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Owens-Illinois, Inc. Proxy Statement for The Annual Meeting of Share Owners To Be Held Thursday, May 10, 2018 ("Proxy Statement") are incorporated by reference into Part III hereof.

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EXHIBITS

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PART I

ITEM 1. BUSINESS

General Development of Business

Owens-Illinois, Inc., a Delaware corporation (the "Company"), through its subsidiaries, is the successor to a business established in 1903. The Company is the largest manufacturer of glass containers in the world with 78 glass manufacturing plants in 23 countries. It competes in the glass container segment of the rigid packaging market and is the leading glass container manufacturer in most of the countries where it has manufacturing facilities.

Company Strategy

The Company's vision is to responsibly provide innovative and competitive packaging solutions for the world's leading food and beverage companies. Its goal is to enable future success for its customers, employees and share owners. The Company will realize its vision and goal by achieving its strategic ambitions including:

- **To be the preferred supplier for glass packaging in the global food and beverage industry** by significantly improving the customer experience; aligning its activity with customers' value; improving quality and flexibility; and improving innovation and speed of commercialization; as well as increasing sales, marketing, end-to-end supply chain capabilities and talent;
- **To be the most cost effective producer in the global glass packaging segment** by ensuring asset stability and total systems cost management; increasing efficiency, leveraging automation, and improving quality; cultivating game changing concepts that create new competitive advantages; and focusing on continuous improvement; and
- **To expand its business in attractive, growing markets and segments** by growing with strategic customers; expanding into attractive new markets; and evaluating expansion into the value chain.

Reportable Segments

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Information as to sales, earnings from continuing operations before interest expense (net), and provision for income taxes and excluding amounts related to certain items that management considers not representative of ongoing operations ("segment operating profit"), and total assets by reportable segment is included in Note 2 to the Consolidated Financial Statements.

Products and Services

The Company produces glass containers for alcoholic beverages, including beer, flavored malt beverages, spirits and wine. The Company also produces glass packaging for a variety of food items, soft drinks, teas, juices and pharmaceuticals. The Company manufactures glass containers in a wide range of sizes, shapes and colors and is active in new product development and glass container innovation.

Customers

In most of the countries where the Company competes, it has the leading position in the glass container segment of the rigid packaging market based on sales revenue. The Company's largest customers consist mainly of the leading global food and beverage manufacturers, including (in alphabetical order) Anheuser-Busch InBev, Brown Forman, Carlsberg, Coca-Cola, Constellation, Diageo, Heineken, MillerCoors, Nestle and Pernod Ricard. No customer represents more than 10% of the Company's consolidated net sales.

The Company sells most of its glass container products directly to customers under annual or multi-year supply agreements. Multi-year contracts typically provide for price adjustments based on cost changes. The Company also sells some of its products through distributors. Many customers provide the Company with regular estimates of their product needs, which enables the Company to schedule glass container production to maintain reasonable levels of inventory. Glass container manufacturing facilities are generally located in close proximity to customers.

Markets and Competitive Conditions

The Company's principal markets for glass container products are in Europe, North America, Latin America and Asia Pacific.

Europe. The Company has a leading share of the glass container segment of the rigid packaging market in the European countries in which it operates, with 34 glass container manufacturing plants located in the Czech Republic, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the United Kingdom. These plants primarily produce glass containers for the beer, wine, champagne, spirits, non-alcoholic beverages and food markets in these countries. The Company also has interests in two joint ventures that manufacture glass containers in Italy. Throughout Europe, the Company competes directly with a variety of glass container manufacturers including Verallia, Ardagh Group, Vetropack, Vidrala and BA Vidro.

North America. The Company has 19 glass container manufacturing plants in the U.S. and Canada, and interests in two joint ventures that manufacture glass containers. Also, the Company has a distribution facility used to import glass containers from its business in Mexico. The Company has the leading share of the glass container segment of the U.S. rigid packaging market, based on sales revenue by domestic producers. The principal glass container competitors in the U.S. are the Ardagh Group and Anchor Glass Container. Imports from China, Mexico, Taiwan and other countries also compete in U.S. glass container segments. Additionally, there are several major consumer packaged goods companies that self-manufacture glass containers.

Latin America. The Company has 17 glass manufacturing plants in Latin America, located in Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, and Peru. In Latin America, the Company maintains a diversified portfolio serving several markets, including beer, non-alcoholic beverages, spirits, flavored malt beverages, wine, food and pharmaceuticals. The region also has a large infrastructure for returnable/refillable glass containers. The Company competes directly with Verallia in Brazil and Argentina, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region.

Asia Pacific. The Company has eight glass container manufacturing plants in the Asia Pacific region, located in Australia, China, Indonesia and New Zealand. It also has interests in joint venture operations in China, Malaysia and Vietnam. In Asia Pacific, the Company primarily produces glass containers for the beer, wine, food and non-alcoholic beverage markets. The Company competes directly with Orora Limited in Australia, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region. In China, the glass container segments of the packaging market are regional and highly fragmented with a large number of local competitors.

In addition to competing with other large and well-established manufacturers in the glass container segment, the Company competes in all regions with manufacturers of other forms of rigid packaging, principally aluminum cans and plastic containers. Competition is based on quality, price, service, innovation and the marketing attributes of the container. The principal competitors producing metal containers include Ball Corporation, Crown Holdings, Inc., and Silgan Holdings Inc. The principal competitors producing plastic containers include Amcor, Consolidated Container Holdings, LLC, Reynolds Group Holdings Limited, Plastipak Packaging, Inc. and Silgan Holdings Inc. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches, aseptic cartons and bag-in-box containers.

The Company seeks to provide products and services to customers ranging from large multinationals to small local breweries and wineries in a way that creates a competitive advantage for the Company. The Company believes that it is often the glass container partner of choice because of its innovation and branding capabilities, its global footprint and its expertise in manufacturing know-how and process technology.

Seasonality

Sales of many glass container products such as beer, beverages and food are seasonal. Shipments in North America and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater the last three quarters of the year.

Manufacturing

The Company has 78 glass manufacturing plants. It constantly seeks to improve the productivity of these operations through the systematic upgrading of production capabilities, sharing of best practices among plants and effective training of employees.

The Company also provides engineering support for its glass manufacturing operations through facilities located in the U.S., Australia, France, Poland, Colombia and Peru.

Suppliers and Raw Materials

The primary raw materials used in the Company's glass container operations are sand, soda ash, limestone and recycled glass. Each of these materials, as well as the other raw materials used to manufacture glass containers, has historically been available in adequate supply from multiple sources. One of the sources is a soda ash mining operation in Wyoming in which the Company has a 25% interest.

Energy

The Company's glass container operations require a continuous supply of significant amounts of energy, principally natural gas, fuel oil and electrical power. Adequate supplies of energy are generally available at all of the Company's manufacturing locations. Energy costs typically account for 10-20% of the Company's total manufacturing costs, depending on the cost of energy, the type of energy available, the factory location and the particular energy requirements. The percentage of total cost related to energy can vary significantly because of volatility in market prices, particularly for natural gas and fuel oil in volatile markets such as North America and Europe.

In North America, more than 90% of the sales volume is represented by customer contracts that contain provisions that pass the commodity price of natural gas to the customer, effectively reducing the North America segment's exposure to changing natural gas market prices.

In Europe and Asia Pacific, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts have terms that can range from one to three years. In Latin America, the Company primarily enters into fixed price contracts for its energy requirements in most of the countries in which it operates and the remaining energy requirements are subject to changing natural gas market prices and economic impacts. These fixed price contracts typically have terms of one to ten years, and generally include annual price adjustments for inflation and for certain contracts price adjustments for foreign currency variation.

Also, in order to limit the effects of fluctuations in market prices for natural gas, the Company uses commodity forward contracts related to its forecasted requirements. The objective of these forward contracts is to reduce potential volatility in cash flows and expense due to changing market prices. The Company continually evaluates the energy markets with respect to its forecasted energy requirements to optimize its use of commodity forward contracts.

Research, Development and Engineering

Research, development and engineering constitute important parts of the Company's technical activities. Expenditures for these activities were $60 million, $65 million and $64 million for 2017, 2016, and 2015, respectively. The Company primarily focuses on advancements in the areas of product innovation, manufacturing process control, melting technology, automatic inspection, light-weighting and further automation of

manufacturing activities. The Company's research and development activities are conducted principally at its corporate facilities in Perrysburg, Ohio.

The Company holds a large number of patents related to a wide variety of products and processes and has a substantial number of patent applications pending. While the aggregate of the Company's patents are of material importance to its businesses, the Company does not consider that any patent or group of patents relating to a particular product or process is of material importance when judged from the standpoint of any individual segment or its businesses as a whole.

The Company has agreements to license its proprietary glass container technology and to provide technical assistance to a limited number of companies around the world. These agreements cover areas related to manufacturing and engineering assistance. The worldwide licensee network provides a stream of revenue to help support the Company's development activities. In 2017, 2016, and 2015, the Company earned $11 million, $13 million and $12 million, respectively, in royalties and net technical assistance revenue.

Sustainability and the Environment

The Company is committed to reducing the impact its products and operations have on the environment. As part of this commitment, the Company has set targets for increasing the use of recycled glass in its manufacturing process, while reducing energy consumption and carbon dioxide equivalent ("CO_2") emissions. Specific actions taken by the Company include working with governments and other organizations to establish and financially support recycling initiatives, partnering with other entities throughout the supply chain to improve the effectiveness of recycling efforts, reducing the weight of glass packaging and investing in research and development to reduce energy consumption in its manufacturing process. The Company invests in technology and training to improve safety, reduce energy use, decrease emissions and increase the amount of cullet, or recycled glass, used in the production process.

The Company's worldwide operations, in addition to other companies within the industry, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. The Company strives to abide by and uphold such laws and regulations.

Glass Recycling and Bottle Deposits

The Company is an important contributor to recycling efforts worldwide and is among the largest users of recycled glass containers. If sufficient high-quality recycled glass were available on a consistent basis, the Company has the technology to make glass containers containing a high proportion of recycled glass. Using recycled glass in the manufacturing process reduces energy costs and impacts the operating life and efficiency of the glass melting furnaces.

In the U.S., Canada, Europe and elsewhere, government authorities have adopted or are considering legal requirements that would mandate certain recycling rates, the use of recycled materials, or limitations on or preferences for certain types of packaging. The Company believes that governments worldwide will continue to develop and enact legal requirements guiding customer and end-consumer packaging choices.

Sales of beverage containers are affected by governmental regulation of packaging, including deposit laws and extended producer responsibility regulations. As of December 31, 2017, there were a number of U.S. states, Canadian provinces and territories, European countries and Australian states with some form of incentive for consumer returns of glass bottles in their law. The structure and enforcement of such laws and regulations can impact the sales of beverage containers in a given jurisdiction. Such laws and regulations also impact the availability of post-consumer recycled glass for the Company to use in container production.

A number of states and provinces have recently considered or are now considering laws and regulations to encourage curbside, deposit and on premise glass recycling. Although there is no clear trend in the direction of these state and provincial laws and proposals, the Company believes that states and provinces, as well as municipalities within those jurisdictions, will continue to adopt recycling laws, which will impact supplies of

recycled glass. As a large user of recycled glass for making new glass containers, the Company has an interest in laws and regulations impacting supplies of such material in its markets.

Air Emissions

In Europe, the European Union Emissions Trading Scheme ("EUETS") is in effect to facilitate emissions reduction. The Company's manufacturing facilities which operate in EU countries must restrict the volume of their CO_2 emissions to the level of their individually allocated emissions allowances as set by country regulators. If the actual level of emissions for any facility exceeds its allocated allowance, additional allowances can be bought to cover deficits; conversely, if the actual level of emissions for any facility is less than its allocation, the excess allowances can be sold. The EUETS has not had a material effect on the Company's results to date. However, should the regulators significantly restrict the number of emissions allowances available, it could have a material effect in the future.

In North America, both the U.S. and Canada are engaged in significant legislative and regulatory activities relating to greenhouse gas ("GHG") emissions, at the federal, state and provincial levels of government. The U.S. Environmental Protection Agency ("EPA") regulates emissions of GHG air pollutants under the Clean Air Act, which grants the EPA authority to establish limits for certain air pollutants and to require compliance, levy penalties and bring civil judicial action against violators. The structure and scope of the EPA's GHG regulations are currently the subject of litigation and are expected to be the subject of federal legislative activity. The EPA regulations, if preserved as proposed, could have a significant long-term impact on the Company's U.S. operations. The EPA also implemented the Cross-State Air Pollution Rule, which requires certain states in the eastern half of the U.S. to improve air quality by reducing power plant emissions that cross state lines and contribute to smog and soot pollution in downwind states. This rule only applies to power plants at the present time. The state of California in the U.S., and the provinces of Quebec and Ontario in Canada, have adopted cap-and-trade legislation aimed at reducing GHG emissions.

In Asia Pacific, the *National Greenhouse and Energy Reporting Act 2007* commenced on July 1, 2008 in Australia and established a mandatory reporting system for corporate GHG emissions and energy production and consumption. In July 2014, the Australian government introduced the Emissions Reduction Fund ("ERF") which comprises an element to credit emissions reductions, a fund to purchase emissions reductions and a safeguard mechanism. The ERF purchases the lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions, while the safeguard mechanism (effective from July 1, 2016) ensures that emissions reductions paid for through the crediting and purchasing elements of the ERF are not offset by significant increases in emissions above business-as-usual levels elsewhere in the economy. An emissions trading scheme has been in effect in New Zealand since 2008.

In Latin America, the Brazilian government passed a law in 2009 requiring companies to reduce the level of GHG emissions by the year 2020. In the other Latin American countries, national and local governments are considering proposals that would also impose regulations to reduce CO_2 emissions.

The Company is unable to predict what environmental legal requirements may be adopted in the future. However, the Company continually monitors its operations in relation to environmental impacts and invests in environmentally friendly and emissions-reducing projects. As such, the Company has made significant expenditures for environmental improvements at certain of its facilities over the last several years; however, these expenditures did not have a material adverse effect on the Company's results of operations or cash flows. The Company is unable to predict the impact of future environmental legal requirements on its results of operations or cash flows.

Employees

The Company's worldwide operations employed approximately 26,500 persons as of December 31, 2017. Approximately 74% of North American employees are hourly workers covered by collective bargaining agreements. The principal collective bargaining agreement, which at December 31, 2017, covered approximately 75% of the Company's union-affiliated employees in North America, will expire on March 31, 2019.

Approximately 82% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. The Company considers its employee relations to be good and does not anticipate any material work stoppages in the near term.

Available Information

The Company's website is www.o-i.com. The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 can be obtained from this site at no cost. The Company's SEC filings are also available for reading and copying at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company's Corporate Governance Guidelines, Global Code of Business Conduct and Ethics and the charters of the Audit, Compensation, Nominating/Corporate Governance and Risk Oversight Committees are also available on the "Investors" section of the Company's website. Copies of these documents are available in print to share owners upon request, addressed to the Corporate Secretary at the address above.

Executive Officers of the Registrant

In the following table, the Company sets forth certain information regarding those persons currently serving as executive officers of Owens-Illinois, Inc. as of February 14, 2018.

Name and Age	Position
Andres A. Lopez (55)	Chief Executive Officer since January 2016; President, Glass Containers and Chief Operating Officer 2015; Vice President and President of O-I Americas 2014-2015; Vice President and President of O-I South America 2009-2014; Vice President of Global Manufacturing and Engineering 2006–2009.
Miguel I. Alvarez (53) . . .	President, O-I North America and O-I Latin America (merged into the Americas effective January 2018) since November 2017; President, O-I Latin America 2014–2017; President, O-I Brazil 2010–2014. Previously held leadership positions in Chile, Argentina and Ecuador for Belcorp, a leading global beauty products company 2005–2010.
Arnaud Aujouannet (48) . .	Senior Vice President and Chief Sales and Marketing Officer since October 2017; Vice President of Sales and Marketing, Europe 2015–2017. Previously Commercial Associate Director, Oral Care Europe for Procter & Gamble, a multi-national consumer goods company 2012–2015; Global Sales & Marketing Chief Sales & Marketing Officer, Swiss Precision Diagnostic/Clearblue (a Procter & Gamble Joint Venture) 2009–2012.
Jan A. Bertsch (61)	Chief Financial Officer and Senior Vice President since November 2015. Previously Executive Vice President and Chief Financial Officer for Sigma-Aldrich, a life science and technology company, 2012–2015. Vice President, Controller and Principal Accounting Officer at BorgWarner 2011–2012; Vice President and Treasurer, 2009–2011.
Tim M. Connors (43)	President, O-I Asia Pacific since June 2015; General Manager of O-I Australia 2013–2015; Vice President of Finance, Asia Pacific 2011–2013; Vice President of Strategic Planning and Business Development, North America 2010–2011.
Giancarlo Currarino (41) .	Senior Vice President and Chief Technology and Supply Chain Officer since December 2016; Vice President and Chief Technology Officer 2012–2016; Vice President of Global Engineering 2011–2012.
Sergio B. O. Galindo (50).	Vice President, Transition since November 2017; President, O-I North America 2015–2017; Vice President and President of O-I Asia Pacific 2012–2015; General Manager of O-I Colombia 2009–2012.
John A. Haudrich (50). . . .	Senior Vice President and Chief Strategy and Integration Officer since November 2015; Vice President and Acting Chief Financial Officer 2015; Vice President Finance and Corporate Controller 2011–2015; Vice President of Investor Relations 2009–2011.
Vitaliano Torno (59)	President, O-I Europe since January 2016; Managing Director, O-I Europe 2015; Vice President, European countries 2013–2015; Vice President, Marketing and sales, Europe 2010–2013.
John C. Webb (50)	Senior Vice President and Chief Human Resources Officer since September 2017. Previously Vice President & Program Lead, Mars Operating Model for Mars, a food and beverage company 2015–2017; Senior Vice President, People and Organization for Wrigley, a subsidiary of Mars 2010–2015.
MaryBeth Wilkinson (45).	Senior Vice President and General Counsel since January 2017; Corporate Secretary since 2016; Associate General Counsel 2013–2016; Assistant General Counsel 2010–2012. Previously Partner with a global law firm 2007–2010.

Financial Information about Foreign and Domestic Operations

Information as to net sales, segment operating profit, and assets of the Company's reportable segments is included in Note 2 to the Consolidated Financial Statements.

ITEM 1A. RISK FACTORS

Asbestos-Related Liability—The Company has made, and will continue to make, substantial payments to resolve claims of persons alleging exposure to asbestos-containing products and may need to record additional charges in the future for estimated asbestos-related costs. These substantial payments have affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company exited the insulation business in April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory, and in some cases, punitive damages, in various amounts (herein referred to as "asbestos claims").

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2017, before insurance recoveries, for its asbestos-related liability. The Company's ability to estimate its liability has been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

For many years, the Company has conducted a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing its annual results of operations. In May 2016, the Company revised its method for estimating its asbestos-related liabilities in connection with finalizing and reporting its restated results of operations for the three years ended December 31, 2015. Its revised method uses estimated future claims filings provided by a third party consultant and the Company's legal judgment regarding estimated future indemnity and legal costs to develop a reasonable estimate of its total asbestos-related liabilities. The revised methodology has led the Company to conclude that an asbestos liability of $582 million was required as of December 31, 2017.

The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its future annual comprehensive legal reviews, the Company will review its estimate of its total asbestos-related liability, unless significant changes in trends or new developments warrant an earlier review. Such reviews may result in significant adjustments to the liability accrued at the time of the review.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

The ultimate amount of distributions that may be required to fund the Company's asbestos-related payments cannot be estimated with certainty. Asbestos-related payments continue to be substantial and the continued use of

significant amounts of cash for asbestos-related costs has affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

Substantial Leverage—The Company's indebtedness could adversely affect the Company's financial health.

The Company has a significant amount of debt. As of December 31, 2017 and December 31, 2016, the Company had approximately $5.3 billion of total debt outstanding.

The Company's indebtedness could result in the following consequences:

- Increased vulnerability to general adverse economic and industry conditions;
- Increased vulnerability to interest rate increases for the portion of the debt under the secured credit agreement;
- Require the Company to dedicate a substantial portion of cash flow from operations to payments on indebtedness, thereby reducing the availability of cash flow to fund working capital, capital expenditures, acquisitions, share repurchases, development efforts and other general corporate purposes;
- Limit flexibility in planning for, or reacting to, changes in the Company's business and the rigid packaging market;
- Place the Company at a competitive disadvantage relative to its competitors that have less debt; and
- Limit, along with the financial and other restrictive covenants in the documents governing indebtedness, among other things, the Company's ability to borrow additional funds

Ability to Service Debt—To service its indebtedness, the Company will require a significant amount of cash. The Company's ability to generate cash and refinance certain indebtedness depends on many factors beyond its control.

The Company's ability to make payments on and to refinance its indebtedness and to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes depends on its ability to generate cash in the future. The Company has no assurance that it will generate sufficient cash flow from operations, or that future borrowings will be available under the secured credit agreement, in an amount sufficient to enable the Company to pay its indebtedness, or to fund other liquidity needs. If short-term interest rates increase, the Company's debt service cost will increase because some of its debt is subject to short-term variable interest rates. At December 31, 2017, the Company's debt, including interest rate swaps, that is subject to variable interest rates represented approximately 41% of total debt.

The Company may need to refinance all or a portion of its indebtedness on or before maturity. If the Company is unable to generate sufficient cash flow and is unable to refinance or extend outstanding borrowings on commercially reasonable terms or at all, it may have to take one or more of the following actions:

- Reduce or delay capital expenditures planned for replacements, improvements and expansions;
- Sell assets;
- Restructure debt; and/or
- Obtain additional debt or equity financing.

The Company can provide no assurance that it could affect or implement any of these alternatives on satisfactory terms, if at all.

Debt Restrictions—The Company may not be able to finance future needs or adapt its business plans to changes because of restrictions placed on it by the secured credit agreement and the indentures and instruments governing other indebtedness.

The secured credit agreement, the indentures governing the senior debentures and notes, and certain of the agreements governing other indebtedness contain affirmative and negative covenants that limit the ability of the Company to take certain actions. For example, these indentures restrict, among other things, the ability of the Company and its restricted subsidiaries to borrow money, pay dividends on, or redeem or repurchase its stock, make investments, create liens, enter into certain transactions with affiliates and sell certain assets or merge with or into other companies. These restrictions could adversely affect the Company's ability to operate its businesses and may limit its ability to take advantage of potential business opportunities as they arise.

Failure to comply with these or other covenants and restrictions contained in the secured credit agreement, the indentures or agreements governing other indebtedness could result in a default under those agreements, and the debt under those agreements, together with accrued interest, could then be declared immediately due and payable. If a default occurs under the secured credit agreement, the Company could no longer request borrowings under the secured credit agreement, and the lenders could cause all of the outstanding debt obligations under such secured credit agreement to become due and payable, which would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default under the secured credit agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross acceleration or cross-default provisions.

Foreign Currency Exchange Rates—The Company is subject to the effects of fluctuations in foreign currency exchange rates, which could adversely impact the Company's financial results.

The Company's reporting currency is the U.S. dollar. A significant portion of the Company's net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the Euro, Brazilian real, Colombian peso, Mexican peso and Australian dollar. In its consolidated financial statements, the Company remeasures transactions denominated in a currency other than the functional currency of the reporting entity (e.g. soda ash purchases) and translates local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

International Operations—The Company is subject to risks associated with operating in foreign countries.

The Company operates manufacturing and other facilities throughout the world. Net sales from non-U.S. operations totaled approximately $4.8 billion, representing approximately 70% of the Company's net sales for the year ended December 31, 2017. As a result of its non-U.S. operations, the Company is subject to risks associated with operating in foreign countries, including:

- Political, social and economic instability;
- War, civil disturbance or acts of terrorism;
- Taking of property by nationalization or expropriation without fair compensation;
- Changes in governmental policies and regulations;
- Devaluations and fluctuations in currency exchange rates;
- Fluctuations in currency exchange rates and other impacts resulting from the United Kingdom's referendum on withdrawal from the European Union;
- Imposition of limitations on conversions of foreign currencies into dollars or remittance of dividends and other payments by foreign subsidiaries;

- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- Hyperinflation in certain foreign countries;
- Impositions or increase of investment and other restrictions or requirements by foreign governments;
- Loss or non-renewal of treaties or other agreements with foreign tax authorities;
- Changes in tax laws, or the interpretation thereof, affecting foreign tax credits or tax deductions relating to our non-U.S. earnings or operations; and
- Complying with the U.S. Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from engaging in bribery or other prohibited payments to foreign officials for the purposes of obtaining or retaining business or gaining an unfair business advantage and requires companies to maintain accurate books and records and internal controls.

The risks associated with operating in foreign countries may have a material adverse effect on operations.

Competition—The Company faces intense competition from other glass container producers, as well as from makers of alternative forms of packaging. Competitive pressures could adversely affect the Company's financial health.

The Company is subject to significant competition from other glass container producers, as well as from makers of alternative forms of packaging, such as aluminum cans and plastic containers. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches and aseptic cartons, in serving the packaging needs of certain end-use markets, including juice customers. The Company competes with each rigid packaging competitor on the basis of price, quality, service and the marketing and functional attributes of the container. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing suppliers and/or using an alternative form of packaging. The adverse effects of consumer purchasing decisions may be more significant in periods of economic downturn and may lead to longer- term reductions in consumer spending on glass-job act packaged products.

Pressures from competitors and producers of alternative forms of packaging have resulted in excess capacity in certain countries in the past and have led to capacity adjustments and significant pricing pressures in the rigid packaging market.

Lower Demand Levels—Changes in consumer preferences may have a material adverse effect on the Company's financial results.

Changes in consumer preferences for the food and beverages they consume can reduce demand for the Company's products. Because many of the Company's products are used to package consumer goods, the Company's sales and profitability could be negatively impacted by changes in consumer preferences for those products. Examples of changes in consumer preferences include, but are not limited to, lower sales of major domestic beer brands and shifts from beer to wine or spirits that results in the use of fewer glass containers. In periods of lower demand, the Company's sales and production levels may decrease causing a material adverse effect on the Company's profitability.

High Energy Costs—Higher energy costs worldwide and interrupted power supplies may have a material adverse effect on operations.

Electrical power, natural gas, and fuel oil are vital to the Company's operations as it relies on a continuous energy supply to conduct its business. Depending on the location and mix of energy sources, energy accounts for 10% to 20% of total production costs. Substantial increases and volatility in energy costs could cause the Company to experience a significant increase in operating costs, which may have a material adverse effect on operations.

Global Economic Environment—The global credit, financial and economic environment could have a material adverse effect on operations and financial condition.

The global credit, financial and economic environment could have a material adverse effect on operations, including the following:

- Downturns in the business or financial condition of any of the Company's customers or suppliers could result in a loss of revenues or a disruption in the supply of raw materials;
- Tightening of credit in financial markets could reduce the Company's ability, as well as the ability of the Company's customers and suppliers, to obtain future financing;
- Volatile market performance could affect the fair value of the Company's pension assets and liabilities, potentially requiring the Company to make significant additional contributions to its pension plans to maintain prescribed funding levels;
- The deterioration of any of the lending parties under the Company's revolving credit facility or the creditworthiness of the counterparties to the Company's derivative transactions could result in such parties' failure to satisfy their obligations under their arrangements with the Company; and
- A significant weakening of the Company's financial position or results of operations could result in noncompliance with the covenants under the Company's indebtedness.

Business Integration Risks—The Company may not be able to effectively integrate additional businesses it acquires in the future.

The Company may consider strategic transactions, including acquisitions that will complement, strengthen and enhance growth in its worldwide glass operations. The Company evaluates opportunities on a preliminary basis from time to time, but these transactions may not advance beyond the preliminary stages or be completed. Such acquisitions are subject to various risks and uncertainties, including:

- The inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which may be located in diverse geographic regions) and achieve expected synergies;
- The potential disruption of existing business and diversion of management's attention from day-to-day operations;
- The inability to maintain uniform standards, controls, procedures and policies;
- The need or obligation to divest portions of the acquired companies;
- The potential impairment of relationships with customers;
- The potential failure to identify material problems and liabilities during due diligence review of acquisition targets;
- The potential failure to obtain sufficient indemnification rights to fully offset possible liabilities associated with acquired businesses; and
- The challenges associated with operating in new geographic regions.

In addition, the Company cannot make assurances that the integration and consolidation of newly acquired businesses will achieve any anticipated cost savings and operating synergies.

Customer Consolidation—The continuing consolidation of the Company's customer base may intensify pricing pressures and have a material adverse effect on operations.

Many of the Company's largest customers have acquired companies with similar or complementary product lines. This consolidation has increased the concentration of the Company's business with its largest customers. In

many cases, such consolidation has been accompanied by pressure from customers for lower prices, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Increased pricing pressures from the Company's customers may have a material adverse effect on operations.

Operational Disruptions—Profitability could be affected by unanticipated operational disruptions.

The Company's glass container manufacturing process is asset intensive and includes the use of large furnaces and machines. The Company periodically experiences unanticipated disruptions to its assets and these events can have an adverse effect on its business operations and profitability. The impacts of these operational disruptions include, but are not limited to, higher maintenance, production changeover and shipping costs, higher capital spending, as well as lower absorption of fixed costs during periods of extended downtime. The Company maintains insurance policies in amounts and with coverage and deductibles that are reasonable and in line with industry standards; however, this insurance coverage may not be adequate to protect the Company from all liabilities and expenses that may arise.

Seasonality—Profitability could be affected by varied seasonal demands.

Due principally to the seasonal nature of the consumption of beer and other beverages, for which demand is stronger during the summer months, sales of the Company's products have varied and are expected to vary by quarter. Shipments in the U.S. and Europe are typically greater in the second and third quarters of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in Latin America are typically greater in the last three quarters of the year. Unseasonably cool weather during peak demand periods can reduce demand for certain beverages packaged in the Company's containers.

Raw Materials—Profitability could be affected by the availability and cost of raw materials.

The raw materials that the Company uses have historically been available in adequate supply from multiple sources. For certain raw materials, however, there may be temporary shortages due to weather or other factors, including disruptions in supply caused by raw material transportation or production delays. These shortages, as well as material volatility in the cost of any of the principal raw materials that the Company uses, may have a material adverse effect on operations.

In addition, the Company purchases its soda ash raw materials in U.S. dollars in the Latin America and Asia Pacific regions. Given fluctuations in foreign currency exchange rates, this may cause these regions to experience inflationary or deflationary impacts to their raw material costs.

Environmental Risks—The Company is subject to various environmental legal requirements and may be subject to new legal requirements in the future. These requirements may have a material adverse effect on operations.

The Company's operations and properties are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. Such legal requirements frequently change and vary among jurisdictions. The Company's operations and properties must comply with these legal requirements. These requirements may have a material adverse effect on operations.

The Company has incurred, and expects to incur, costs for its operations to comply with environmental legal requirements, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations), and criminal sanctions for violations. These legal requirements may apply to conditions at properties that the Company presently or formerly owned or operated, as well as at other properties for which the Company may be responsible, including those at which wastes attributable to the Company were disposed. A significant order or judgment against the Company, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

A number of governmental authorities have enacted, or are considering enacting, legal requirements that would mandate certain rates of recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials. In addition, some companies with packaging needs have responded to such developments and/or perceived environmental concerns of consumers by using containers made in whole or in part of recycled materials. Such developments may reduce the demand for some of the Company's products and/or increase the Company's costs, which may have a material adverse effect on operations.

Taxes—Potential tax law and U.S. trade policy changes could adversely affect net income and cash flow.

The Company is subject to income tax in the numerous jurisdictions in which it operates. Increases in income tax rates or other tax law changes, as well as ongoing audits by domestic and international authorities, could reduce the Company's net income and cash flow from affected jurisdictions. In particular, additional guidance is likely to be issued providing further clarification on the application of the U.S. Tax Cuts and Jobs Act which was signed into law on December 22, 2017. Further, it is reasonable to expect that global taxing authorities will be reviewing current legislation for potential modifications in reaction to the implementation of the U.S. legislation. This additional guidance, along with the potential for additional global tax legislation changes, could have a material adverse impact on net income and cash flow by impacting significant deductions or income inclusions. In addition, the Company's products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which it operates. Increases in these indirect taxes could affect the affordability of the Company's products and, therefore, reduce demand.

In addition, existing free trade laws and regulations, such as the North American Free Trade Agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where the Company manufactures products, such as Mexico, could have a material adverse effect on its business and financial results. Also, a government's adoption of "buy national" policies or retaliation by another government against such policies may affect the prices of and demand for the Company's products and could have a negative impact on the Company's results of operations.

Many international legislative and regulatory bodies have proposed legislation and begun investigations of the tax practices of multinational companies and, in the European Union (EU), the tax policies of certain EU member states. One of these efforts has been led by the OECD, an international association of 34 countries including the United States, which has finalized recommendations to revise corporate tax, transfer pricing, and tax treaty provisions in member countries. Since 2013, the European Commission (EC) has been investigating tax rulings granted by tax authorities in a number of EU member states with respect to specific multinational corporations to determine whether such rulings comply with EU rules on state aid, as well as more recent investigations of the tax regimes of certain EU member states. If the EC determines that a tax ruling or tax regime violates the state aid restrictions, the tax authorities of the affected EU member state may be required to collect back taxes for the period of time covered by the ruling. Due to the large scale of the Company's U.S. and international business activities, many of these proposed changes to the taxation of the Company's activities, if enacted, could increase the Company's worldwide effective tax rate and harm results of operations.

Labor Relations—Some of the Company's employees are unionized or represented by workers' councils.

The Company is party to a number of collective bargaining agreements with labor unions which at December 31, 2017, covered approximately 74% of the Company's employees in North America. The principal collective bargaining agreement, which at December 31, 2017 covered approximately 75% of the Company's union-affiliated employees in North America, will expire on March 31, 2019. Approximately 82% of employees in Latin America are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in Latin America, Australia and New Zealand have varying terms and expiration dates. Upon the expiration of any collective bargaining agreement, if the Company is unable to negotiate acceptable contracts with labor unions, it could result in strikes by the affected workers and increased operating costs as a result of

higher wages or benefits paid to union members. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of the Company's employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure the Company's workforce. In addition, if the Company's employees were to engage in a strike or other work stoppage, the Company could experience a significant disruption of operations and/or higher ongoing labor costs, which may have a material adverse effect on operations.

Key Management and Personnel Retention—Failure to retain key management and personnel could have a material adverse effect on operations.

The Company believes that its future success depends, in part, on its experienced management team and certain key personnel. The loss of certain key management and personnel could limit the Company's ability to implement its business plans and meet its objectives.

Joint Ventures—Failure by joint venture partners to observe their obligations could have a material adverse effect on operations.

A portion of the Company's operations is conducted through joint ventures, including joint ventures in the Europe, North America, Asia Pacific segments and in retained corporate costs and other. If the Company's joint venture partners do not observe their obligations or are unable to commit additional capital to the joint ventures, it is possible that the affected joint venture would not be able to operate in accordance with its business plans, which could have a material adverse effect on the Company's financial condition and results of operations.

Cybersecurity and Information Technology—Security threats and the failure or disruption of the confidentiality, integrity and availability of the Company's information technology, or those of third parties, could have a material adverse effect on its business and the results of operations.

The Company relies on information technology ("IT") to operate its plants, to communicate with its employees, customers and suppliers, to store sensitive business information and intellectual property, and to report financial and operating results. In addition, the Company collects and stores certain data, including confidential or personal information of employees, customers and suppliers. As with all IT systems, the Company's IT system, or any third party's system on which the Company relies, could fail on its own accord or may be vulnerable to a variety of interruptions due to events, including, but not limited to, natural disasters, terrorist attacks, sabotage, telecommunications failures, cybersecurity vulnerabilities, and sophisticated and targeted cyber-related attacks or computer crimes.

As the prevalence of cyberattacks on various organizations continues to increase, the Company's IT systems, or those of third parties, may be subject to increased security threats and the Company may incur additional costs to upgrade its security measures. The Company's measures in place to prevent and detect global security threats may be unable to prevent certain security breaches. This may result in transactional errors, business disruptions, loss or damage of intellectual property, loss of customers and business opportunities, unauthorized access to or disclosure of confidential or personal information, regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensatory costs, and additional compliance costs, any of which could have a material adverse effect on operations. Any resulting costs or losses may not be covered by, or may exceed the coverage limits of the Company's cyber insurance.

Accounting Estimates—The Company's financial results are based upon estimates and assumptions that may differ from actual results.

In preparing the Company's consolidated financial statements in accordance with U.S. generally accepted accounting principles, several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain

information used in the preparation of the Company's financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that accounting for long-lived assets, pension benefit plans, contingencies and litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements. Actual results for all estimates could differ materially from the estimates and assumptions that the Company uses, which could have a material adverse effect on the Company's financial condition and results of operations.

Accounting Standards—The adoption of new accounting standards or interpretations could adversely impact the Company's financial results.

New accounting standards or pronouncements could adversely affect the Company's operating results or cause unanticipated fluctuations in its results in future periods. The accounting rules and regulations that the Company must comply with are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. The Company cannot predict the impact of future changes to accounting principles or its accounting policies on its financial statements going forward. In February 2016, the FASB issued ASU 2016-02, "Leases", which requires all operating leases with lease terms longer than twelve months be recorded as lease assets and lease liabilities on the Company's consolidated balance sheets. Implementing changes required by this new standard will require a significant expenditure of time, attention and resources, including significant upgrades to and investments in the Company's lease administration systems and other accounting systems, and could result in significant adverse changes to our financial statements.

Goodwill—A significant write down of goodwill would have a material adverse effect on the Company's reported results of operations and net worth.

Goodwill at December 31, 2017 totaled $2.6 billion. The Company evaluates goodwill annually (or more frequently if impairment indicators arise) for impairment using the required business valuation methods. These methods include the use of a weighted average cost of capital to calculate the present value of the expected future cash flows of the Company's reporting units. Future changes in the cost of capital, expected cash flows, or other factors may cause the Company's goodwill to be impaired, resulting in a non-cash charge against results of operations to write down goodwill for the amount of the impairment. If a significant write down is required, the charge would have a material adverse effect on the Company's reported results of operations and net worth.

Pension Funding—An increase in the underfunded status of the Company's pension plans could adversely impact the Company's operations, financial condition and liquidity.

The Company contributed $31 million, $38 million and $17 million to its defined benefit pension plans in 2017, 2016, and 2015, respectively. The amount the Company is required to contribute to these plans is determined by the laws and regulations governing each plan, and is generally related to the funded status of the plans. A deterioration in the value of the plans' investments or a decrease in the discount rate used to calculate plan liabilities generally would increase the underfunded status of the plans. An increase in the underfunded status of the plans could result in an increase in the Company's obligation to make contributions to the plans, thereby reducing the cash available for working capital and other corporate uses, and may have an adverse impact on the Company's operations, financial condition and liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The principal manufacturing facilities and other material important physical properties of the Company at December 31, 2017 are listed below. All properties are glass container plants and are owned in fee, except where otherwise noted.

North American Operations

United States

Atlanta, GA	Portland, OR
Auburn, NY	Streator, IL
Brockway, PA	Toano, VA
Crenshaw, PA	Tracy, CA
Danville, VA	Waco, TX
Kalama, WA	Windsor, CO
Lapel, IN	Winston-Salem, NC
Los Angeles, CA	Zanesville, OH
Muskogee, OK	

Canada

Brampton, Ontario	Montreal, Quebec

Asia Pacific Operations

Australia

Adelaide	Melbourne
Brisbane	Sydney

China

Tianjin	Zhaoqing

Indonesia

Jakarta

New Zealand

Auckland

European Operations

Czech Republic

Dubi	Nove Sedlo

Estonia

Jarvakandi

France

Beziers	Vayres
Gironcourt	Veauche
Labegude	Vergeze
Puy-Guillaume	Wingles
Reims	

Germany
Bernsdorf
Holzminden
Rinteln

Hungary
Oroshaza

Italy
Asti
Aprilia
Bari
Marsala
Mezzocorona
Origgio
Ottaviano
San Gemini
San Polo
Villotta

The Netherlands
Leerdam
Maastricht

Poland
Jaroslaw
Poznan

Spain
Barcelona
Sevilla

United Kingdom
Alloa
Harlow

Latin American Operations

Argentina
Rosario

Bolivia
Cochabamba

Brazil
Recife
Rio de Janeiro
Sao Paulo

Colombia
Buga (tableware)
Envigado
Soacha
Zipaquira

Ecuador
Guayaquil

Mexico
Guadalajara
Los Reyes
Monterrey
Queretaro
Toluca

Peru
Callao — Lurin(1)

Other Operations

Engineering Support Centers
Brockway, Pennsylvania — Lurin, Peru
Cali, Colombia — Perrysburg, Ohio
Hawthorn, Australia(1) — Villeurbanne, France
Jaroslaw, Poland

Shared Service Centers
Medellin, Colombia — Perrysburg, Ohio
Monterrey, Mexico — Poznan, Poland(1)

Distribution Center
Laredo, TX(1)

Corporate Facilities

Hawthorn, Australia(1) — Perrysburg, Ohio(1)
Miami, Florida(1) — Vufflens-la-Ville, Switzerland(1)

(1) This facility is leased in whole or in part.

The Company believes that its facilities are well maintained and currently adequate for its planned production requirements over the next three to five years.

ITEM 3. LEGAL PROCEEDINGS

For further information on legal proceedings, see Note 12 to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHARE OWNER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

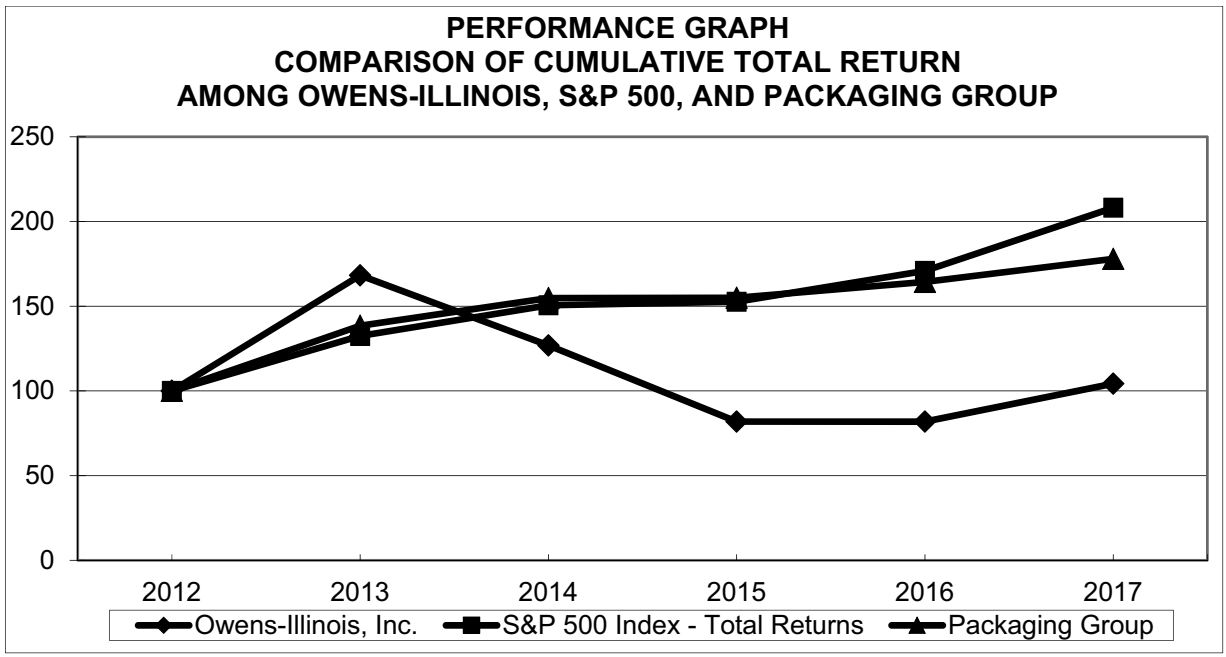
The price range for the Company's common stock on the New York Stock Exchange, as reported by the Financial Industry Regulatory Authority, Inc., was as follows:

	2017		2016	
	High	Low	High	Low
First Quarter	$ 20.46	$ 17.95	$ 17.06	$ 12.06
Second Quarter	23.92	19.87	20.18	15.46
Third Quarter	25.22	23.18	19.12	16.81
Fourth Quarter	25.68	21.86	19.46	17.00

The number of share owners of record on December 31, 2017 was 998. Approximately 100% of the outstanding shares were registered in the name of Depository Trust Company, or CEDE, which held such shares on behalf of a number of brokerage firms, banks, and other financial institutions. The shares attributed to these financial institutions, in turn, represented the interests of more than 38,415 unidentified beneficial owners. No dividends have been declared or paid since the Company's initial public offering in December 1991 and the Company does not anticipate paying any dividends in the near future. The Company's Amended Senior Secured Credit Facility Agreement contains various covenants that have certain restrictions on the payment of dividends on the Company's common stock.

Information with respect to securities authorized for issuance under equity compensation plans is included herein under Item 12.

The Company did not purchase any shares of its common stock for the twelve months ended December 31, 2017. In January 2018, the Board of Directors authorized a $400 million share repurchase program. The Company expects to repurchase approximately $100 million in shares of the Company's stock in 2018.



	Years Ending December 31,					
	2012	2013	2014	2015	2016	2017
Owens-Illinois, Inc.	$ 100.00	$ 168.22	$ 126.89	$ 81.90	$ 81.85	$ 104.23
S&P 500	100.00	132.39	150.51	152.59	170.84	208.14
Packaging Group	100.00	138.48	154.79	155.00	164.31	177.96

The above graph compares the performance of the Company's Common Stock with that of a broad market index (the S&P 500 Composite Index) and a packaging group consisting of companies with lines of business or product end uses comparable to those of the Company for which market quotations are available.

The packaging group consists of: AptarGroup, Inc., Ball Corp., Bemis Company, Inc., Crown Holdings, Inc., Owens-Illinois, Inc., Sealed Air Corp., Silgan Holdings Inc., and Sonoco Products Co.

The comparison of total return on investment for each period is based on the investment of $100 on December 31, 2012 and the change in market value of the stock, including additional shares assumed purchased through reinvestment of dividends, if any.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below relates to each of the five years in the period ended December 31, 2017, which was derived from the audited consolidated financial statements of the Company.

	Years ended December 31,				
	2017	2016	2015	2014	2013
	(Dollars in millions)				
Consolidated operating results(a):					
Net sales	$ 6,869	$ 6,702	$ 6,156	$ 6,784	$ 6,967
Cost of goods sold	(5,736)	(5,490)	(5,046)	(5,531)	(5,636)
Gross profit	1,133	1,212	1,110	1,253	1,331
Selling and administrative, research, development and engineering	(562)	(568)	(540)	(586)	(568)
Other expense, net	(28)	(16)	(51)	(130)	(66)
Earnings before interest expense and items below	543	628	519	537	697
Interest expense, net	(268)	(272)	(251)	(230)	(229)
Earnings from continuing operations before income taxes	275	356	268	307	468
Provision for income taxes	(70)	(119)	(106)	(92)	(120)
Earnings from continuing operations	205	237	162	215	348
Loss from discontinued operations	(3)	(7)	(4)	(23)	(18)
Net earnings	202	230	158	192	330
Net (earnings) attributable to noncontrolling interests	(22)	(21)	(23)	(28)	(13)
Net earnings attributable to the Company	$ 180	$ 209	$ 135	$ 164	$ 317

	Years ended December 31,				
	2017	2016	2015	2014	2013
Basic earnings per share of common stock:					
Earnings from continuing operations	$ 1.12	$ 1.33	$ 0.86	$ 1.14	$ 2.03
Loss from discontinued operations	(0.01)	(0.04)	(0.03)	(0.14)	(0.11)
Net earnings	$ 1.11	$ 1.29	$ 0.83	$ 1.00	$ 1.92
Weighted average shares outstanding (in thousands)	162,737	161,857	161,169	164,720	164,425
Diluted earnings per share of common stock:					
Earnings from continuing operations	$ 1.11	$ 1.32	$ 0.85	$ 1.13	$ 2.02
Loss from discontinued operations	(0.01)	(0.04)	(0.03)	(0.14)	(0.11)
Net earnings	$ 1.10	$ 1.28	$ 0.82	$ 0.99	$ 1.91
Diluted average shares (in thousands)	164,647	162,825	162,135	166,047	165,828

	Years ended December 31,				
	2017	2016	2015	2014	2013
	(Dollars in millions)				
Other data:					
The following are included in earnings from continuing operations:					
Depreciation	$ 387	$ 375	$ 323	$ 335	$ 350
Amortization of intangibles	101	103	86	83	47
Amortization of deferred finance fees (included in interest expense)	13	13	15	30	32
Balance sheet data (at end of period):					
Working capital (current assets less current liabilities)	$ 140	$ 194	$ 212	$ 43	$ 296
Total assets	9,756	9,135	9,421	7,843	8,393
Total debt	5,283	5,328	5,573	3,445	3,541
Total share owners' equity	$ 927	$ 363	$ 279	$ 771	1,010

(a) Note that the items below relate to items management considers not representative of ongoing operations.

	Years ended December 31,				
	2017	2016	2015	2014	2013
	(Dollars in millions)				
Cost of goods sold					
Pension settlement charges	$ 200	$ 98	$ —	$ 50	$ —
Acquisition-related fair value inventory adjustments			22		
Restructuring, asset impairment and related charges				8	
Selling and administrative, research, development and engineering					
Pension settlement charges	18			15	
Other expense, net					
Restructuring, asset impairment and other charges	77	129	75	78	119
Gain on China land sale		(71)			
Charge for asbestos-related costs			16	46	12
Strategic transaction costs			23		
Non-income tax charge				69	
Acquisition-related fair value intangible adjustments			10		
Equity earnings related charges			5	5	
Interest expense, net					
Note repurchase premiums and additional interest charges for the write-off of unamortized deferred financing fees related to the early extinguishment of debt	18	9	42	20	11
Provision for income taxes					
Net tax (benefit) expense for income tax on items above	(27)	1	(15)	(34)	(14)
Tax expense (benefit) recorded for certain tax adjustments	(29)	(8)	8	(8)	
Net earnings attributable to noncontrolling interest					
Net impact of noncontrolling interests on items above	(3)	2			(13)
	$ 254	$ 160	$ 186	$ 249	$ 115

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The segment data presented below is prepared in accordance with general accounting principles for segment reporting. The line titled "reportable segment totals", however, is a non-GAAP measure when presented outside of the financial statement footnotes. Management has included reportable segment totals below to facilitate the discussion and analysis of financial condition and results of operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources.

Beginning in the first quarter of 2018, to better leverage its scale and presence across a larger geography and market, and to reduce administrative costs, the Company merged the North America and Latin America segments into one segment named the Americas. This change in segment reporting for the Americas is aligned with the Company's internal approach to managing, reporting, and evaluating performance of this region.

Financial information regarding the Company's reportable segments is as follows (dollars in millions):

	2017	2016	2015
Net sales:			
Europe	$ 2,375	$ 2,300	$ 2,324
North America	2,160	2,220	2,039
Latin America	1,551	1,432	1,064
Asia Pacific	714	684	671
Reportable segment totals	6,800	6,636	6,098
Other	69	66	58
Net sales	$ 6,869	$ 6,702	$ 6,156

	2017	2016	2015
Segment operating profit:			
Europe	$ 263	$ 237	$ 209
North America	318	299	265
Latin America	296	269	183
Asia Pacific	65	77	83
Reportable segment totals	942	882	740
Items excluded from segment operating profit:			
Retained corporate costs and other	(104)	(98)	(70)
Pension settlement charges	(218)	(98)	
Restructuring, asset impairment and other related charges	(77)	(129)	(80)
Charge for asbestos-related costs			(16)
Gain on China land sale		71	
Strategic transaction costs			(23)
Acquisition-related fair value inventory adjustments			(22)
Acquisition-related fair value intangible adjustments			(10)
Non-income tax charge			
Interest expense, net	(268)	(272)	(251)
Earnings from continuing operations before income taxes	275	356	268
Provision for income taxes	(70)	(119)	(106)
Earnings from continuing operations	205	237	162
Loss from discontinued operations	(3)	(7)	(4)
Net earnings	202	230	158
Net earnings attributable to noncontrolling interests	(22)	(21)	(23)
Net earnings attributable to the Company	$ 180	$ 209	$ 135
Net earnings from continuing operations attributable to the Company	$ 183	$ 216	$ 139

Note: all amounts excluded from reportable segment totals are discussed in the following applicable sections.

Executive Overview—Comparison of 2017 with 2016

2017 Highlights

- Net sales were up nearly 3% compared to the prior year, driven by higher shipments, higher prices and the favorable effects of changes in foreign currency exchange rates
- Driven by higher shipments and progress on strategic initiatives, segment operating profit was higher in all regions, except for Asia Pacific, compared to the prior year
- Issued €225 million and $310 million of senior notes and repaid higher-cost debt
- Received $115 million from selling the Company's right, title and interest in amounts due under a prior arbitration award in Venezuela

Net sales increased by $167 million compared to the prior year primarily due to the favorable effect of changes in foreign currency exchange rates, higher shipments and higher prices.

Earnings from continuing operations before income taxes were $81 million lower in 2017 than the prior year primarily due to higher pension settlement charges, partially offset by higher segment operating profit. Segment operating profit for reportable segments increased by $60 million compared to the prior year. For 2017, segment operating profit in all regions, except for Asia Pacific, exceeded prior year amounts.

Net interest expense in 2017 decreased $4 million compared to 2016. Net interest expense included $18 million and $9 million in 2017 and 2016, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense decreased $13 million in 2017 primarily due to deleveraging and refinancing actions.

For 2017, the Company recorded earnings from continuing operations attributable to the Company of $183 million, or $1.11 per share (diluted), compared with earnings of $216 million, or $1.32 per share (diluted), for 2016. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $254 million, or $1.54 per share, in 2017 and $160 million, or $0.99 per share, in 2016.

Results of Operations—Comparison of 2017 with 2016

Net Sales

The Company's net sales in 2017 were $6,869 million compared with $6,702 million in 2016, an increase of $167 million, or approximately 3%. Higher selling prices benefited net sales by $61 million in 2017. Total glass container shipments, in tonnes, were up approximately 1% in 2017 compared to the same period in the prior year. However, an unfavorable sales mix resulted in approximately $3 million of lower sales. Favorable foreign currency exchange rates, primarily due to a stronger Euro, Brazilian real, Colombian peso, Australian dollar and New Zealand dollar, increased sales by $106 million.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales—2016		$ 6,636
Price	$ 61	
Sales volume	(3)	
Effects of changing foreign currency rates	106	
Total effect on net sales		164
Net sales—2017		$ 6,800

Europe: Net sales in Europe in 2017 were $2,375 million compared with $2,300 million in 2016, an increase of $75 million, or 3%. Net sales in 2017 were benefited by a 1% increase in glass container shipments driven by higher shipments to beer, spirits and wine customers. This increased net sales by $28 million compared to the prior year. Favorable foreign currency exchange rates increased net sales by $57 million, as the Euro strengthened in relation to the U.S. dollar. As a result of the pass through of 2016 cost deflation to customers

under contractual price adjustment formulas, selling prices in Europe were $10 million lower in 2017 compared to the same period in the prior year.

North America: Net sales in North America in 2017 were $2,160 million compared with $2,220 million in 2016, a decrease of $60 million, or 3%. Slightly higher selling prices increased net sales by $21 million in 2017. Total glass shipments in the region were down 3% in 2017 compared to the prior year, driven primarily by lower sales to beer customers. These lower shipments and an unfavorable sales mix resulted in $84 million of lower sales. This impact to sales mix was partially due to several customers converting a portion of their glass shipments from carton packaging to bulk shipments. Favorable foreign currency exchange rates increased net sales by $3 million, as the Canadian dollar strengthened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2017 were $1,551 million compared with $1,432 million in 2016, an increase of $119 million, or 8%. Strong shipments in Mexico and higher shipments in Brazil drove total glass container shipments in the region up 4% in 2017 compared to the prior year and this increased sales by $52 million. The favorable effects of foreign currency exchange rate changes increased net sales $29 million in 2017, principally due to a strengthening of the Brazilian real and Colombian peso in relation to the U.S. dollar. Higher pricing increased net sales by $38 million in 2017.

Asia Pacific: Net sales in Asia Pacific in 2017 were $714 million compared with $684 million in 2016, an increase of $30 million, or 4%. The favorable effects of foreign currency exchange rates changes during 2017, primarily due to the strengthening of the Australian dollar and New Zealand dollar in relation to the U.S. dollar, increased net sales by $17 million. Glass container shipments were down 1% in 2017 as higher shipments to food customers were more than offset by lower shipments to beer and non-alcoholic beverage customers. This resulted in a slightly favorable sales mix, which contributed to $1 million of higher sales in 2017. Slightly higher selling prices also increased net sales by $12 million in 2017.

Earnings from Continuing Operations before Income Taxes and Segment Operating Profit

Earnings from continuing operations before income taxes were $275 million in 2017 compared with $356 million for the same period in 2016, a decrease of $81 million, or 23%. This decrease was primarily due to higher pension settlement charges, partially offset by higher segment operating profit.

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2017 was $942 million compared to $882 million in 2016, an increase of $60 million, or 7%. Higher selling prices increased segment operating profit by $61 million and the favorable effects of foreign currency exchange rates increased segment operating profit by $11 million in 2017. Partially offsetting this was $12 million of higher operating costs.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit—2016		$ 882
Price	$ 61	
Sales volume	—	
Operating costs	(12)	
Effects of changing foreign currency rates	11	
Total net effect on segment operating profit		60
Segment operating profit—2017		$ 942

Europe: Segment operating profit in Europe in 2017 was $263 million compared with $237 million in 2016, an increase of $26 million, or 11%. Operating costs were $25 million lower in 2017 than the prior year period due to cost savings initiatives, benefits realized from a permanent footprint adjustment and cost deflation.

The increase in sales volume discussed above improved segment operating profit by $6 million. Lower selling prices decreased segment operating profit in 2017 by $10 million. The favorable effects of foreign currency exchange rates increased segment operating profit by $5 million in 2017.

North America: Segment operating profit in North America in 2017 was $318 million compared with $299 million in 2016, an increase of $19 million, or 6%. Selling prices were $21 million higher in 2017 compared to the prior year. The unfavorable sales mix and lower shipments discussed above decreased segment operating profit by $19 million. Operating costs in 2017 were lower than the same period in the prior year and this increased segment operating profit by $12 million. Higher cost inflation in 2017 was more than offset by cost reductions, logistics savings and higher equity earnings from the Company's joint-venture with Constellation Brands ("Constellation Brands") in Mexico. Beginning in the first quarter of 2017, equity earnings from this joint-venture were recorded in the North American region. In prior years, equity earnings from this joint-venture were recorded in retained corporate costs and other as it was mostly in construction mode. In addition, approximately $5 million in gains related to non-strategic asset sales were recognized by the region in 2017.

Latin America: Segment operating profit in Latin America in 2017 was $296 million compared with $269 million in 2016, an increase of $27 million, or 10%. Despite significant benefits from cost savings initiatives, substantial cost inflation and the nonoccurrence of gains on non-strategic asset sales recorded in the prior year increased operating costs by $28 million in 2017. Offsetting these declines were higher selling prices that increased segment operating profit in 2017 by $38 million. The increase in sales volume discussed above benefited segment operating profit by $12 million. The favorable effects of foreign currency exchange rates increased segment operating profit by $5 million in 2017.

Asia Pacific: Segment operating profit in Asia Pacific in 2017 was $65 million compared with $77 million in 2016, a decrease of $12 million, or 16%. Despite cost containment efforts, cost inflation, higher supply chain costs and higher costs related to asset improvement projects in the region increased operating costs and decreased segment operating profit by $30 million in 2017. Costs associated with these asset improvement projects are planned to continue and will result in lower segment operating profit in the first half of 2018 in the region than the same period in 2017. Also, in 2017, higher selling prices increased segment operating profit by $12 million and the change in sales volume and mix discussed above increased segment operating profit by $1 million. In addition, the region recorded $4 million of gain related to a land sale in 2017. The favorable effects of foreign currency exchange rates increased segment operating profit by $1 million in 2017.

Interest Expense, net

Net interest expense in 2017 was $268 million compared with $272 million in 2016. Net interest expense included $18 million and $9 million in 2017 and 2016, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense decreased $13 million in 2017 primarily due to deleveraging and refinancing actions.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2017 was 25.5%, compared with 33.4% for 2016. The Company's effective tax rate for 2017 was lower than 2016 primarily due to the resolution of a tax matter that resulted in approximately $26 million of tax accruals reversed in 2017.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2017 was approximately 21%, compared with approximately 24% for 2016. The rate for 2017 was lower than 2016 due to favorable resolution of certain tax matters during 2017.

The Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. See Note 10 to the Consolidated Financial Statements for additional information.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2017 was $22 million compared to $21 million for 2016.

Earnings from Continuing Operations Attributable to the Company

For 2017, the Company recorded earnings from continuing operations attributable to the Company of $183 million, or $1.11 per share (diluted), compared with earnings of $216 million, or $1.32 per share (diluted), for 2016. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2017 and 2016 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2017**	**2016**
Pension settlement charges	$ (218)	$ (98)
Restructuring, asset impairment and other charges	(77)	(129)
Note repurchase premiums and write-off of finance fees	(18)	(9)
Tax benefit for certain tax adjustments	29	8
Net benefit (charge) for income tax on items above	27	(1)
Net impact of noncontrolling interests on items above	3	(2)
Gain on China land sale		71
Total	$ (254)	$ (160)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2017 were increased due to foreign currency effects compared to 2016.

This trend may not continue into 2018. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Executive Overview—Comparison of 2016 with 2015

2016 Highlights

- The Company's acquisition on September 1, 2015 (the "Vitro Acquisition") of the food and beverage glass container business of Vitro S.A.B. de C.V. and its subsidiaries (together "Vitro") as constructed in the U.S., Mexico and Bolivia (the "Vitro Business") increased net sales by $608 million and segment operating profit by $122 million in 2016 compared to 2015
- Net sales in 2016 were $6.7 billion, up 9% from the prior year, primarily due to incremental net sales from the Vitro Acquisition. Excluding the acquisition, shipments were comparable in both periods
- Driven by the Vitro Acquisition and progress on strategic initiatives, segment operating profit was higher in all regions, except for Asia Pacific, in 2016 compared to the prior year
- Issued €500 million of senior notes due 2024 and repaid higher-cost floating-rate debt

Net sales increased by $546 million compared to the prior year primarily due to approximately $608 million of incremental net sales from the Vitro Acquisition and slightly higher pricing, partially offset by the unfavorable effect of changes in foreign currency exchange rates and an unfavorable sales mix.

Segment operating profit for reportable segments increased by $142 million compared to the prior year. The increase was largely attributable to approximately $122 million of incremental segment operating profit from the acquired Vitro Business. Higher selling prices also increased segment operating profit. Partially offsetting this was the unfavorable effect of changes in foreign currency exchange rates and higher operating costs due to cost inflation.

Net interest expense in 2016 increased $21 million compared to 2015. Net interest expense included $9 million and $42 million in 2016 and 2015, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense increased $54 million in the current year primarily due to higher debt levels associated with the Vitro Acquisition.

For 2016, the Company recorded earnings from continuing operations attributable to the Company of $216 million, or $1.32 per share (diluted), compared with earnings of $139 million, or $0.85 per share (diluted), for 2015. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $160 million, or $0.99 per share, in 2016 and $186 million, or $1.15 per share, in 2015.

Results of Operations—Comparison of 2016 with 2015

Net Sales

The Company's net sales in 2016 were $6,702 million compared with $6,156 million in 2015, an increase of $546 million, or 9%. Driven by incremental shipments related to the Vitro Acquisition, total glass container shipments, in tonnes, were up approximately 9% in 2016 compared to 2015. The Vitro Acquisition resulted in approximately $608 million of additional sales. Excluding the impact of the Vitro Acquisition, shipments in 2016 were comparable to 2015. On a global basis, sales volumes of beer, wine, spirits, food and non-alcoholic beverages all grew year-on-year. However, an unfavorable sales mix resulted in $41 million of lower net sales in 2016. Net sales also benefited from $79 million in higher selling prices in 2016. Unfavorable foreign currency exchange rates, primarily due to a weaker Brazilian real, Mexican peso, Colombian peso, Canadian dollar and British pound in relation to the U.S. dollar, impacted sales by $108 million in 2016 compared to 2015.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales—2015		$ 6,098
Price	$ 79	
Sales volume (excluding acquisitions)	(41)	
Effects of changing foreign currency rates	(108)	
Vitro Acquisition	608	
Total effect on net sales		538
Net sales—2016		$ 6,636

Europe: Net sales in Europe in 2016 were $2,300 million compared with $2,324 million in 2015, a decrease of $24 million, or 1%. The primary reason for the decline in net sales in 2016 was a $28 million impact due to foreign currency exchange rates, as the British pound weakened in relation to the U.S. dollar. Glass container shipments in 2016, primarily to beer and wine customers, increased approximately 2% compared to the prior year and this increased net sales by $30 million. Selling prices decreased in Europe due to competitive pressures and resulted in a $26 million decrease in net sales in 2016. This trend in lower prices is expected to continue into the first quarter of 2017.

North America: Net sales in North America in 2016 were $2,220 million compared with $2,039 million in 2015, an increase of $181 million, or 9%. Net sales from the acquired Vitro food and beverage business in the United States increased the region's net sales by $196 million in 2016. Total glass container shipments were up nearly 7% in 2016 compared to 2015, primarily due to the acquired business and higher shipments in all major end uses except beer, which was on par with prior year. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were up nearly 1% in 2016, however, an unfavorable sales mix resulted in

$36 million of lower sales. This impact to sales mix was due to several customers converting a portion of their glass shipments from carton packaging to bulk shipments. Higher selling prices as a result of contractual pass throughs increased net sales by $25 million in 2016. Unfavorable foreign currency exchange rate changes decreased net sales by $4 million, as the Canadian dollar weakened in relation to the U.S. dollar.

Latin America: Net sales in Latin America in 2016 were $1,432 million compared with $1,064 million in 2015, an increase of $368 million, or 35%. Net sales from the acquired Vitro food and beverage business in Mexico and Bolivia increased the region's net sales by approximately $412 million in 2016. Total glass container shipments were up approximately 41% in 2016. Excluding the impact of the Vitro Acquisition in the region, glass container shipments were down approximately 3% in 2016. This decline impacted net sales by approximately $40 million and was primarily due to a general economic slowdown in Brazil and Ecuador, which is expected to continue into 2017, partially offset by growth in Colombia and Peru. The unfavorable effects of foreign currency exchange rate changes decreased net sales $75 million in 2016 compared to 2015, principally due to a decline in the Brazilian real, Colombian peso, and the Mexican peso in relation to the U.S. dollar. Improved pricing in the current year benefited net sales by $71 million.

Asia Pacific: Net sales in Asia Pacific in 2016 were $684 million compared with $671 million for 2015, an increase of $13 million, or 2%. Glass container shipments were down approximately 3% compared to the prior year, however, a slightly more favorable sales mix increased net sales by $5 million in 2016. Sales volumes in mature markets in the region were higher than prior year, but production volumes in those countries were lower due to planned engineering activity. These lower production volumes in the mature markets were supported by importing from emerging markets in the region, which in turn, led to lower domestic sales in those markets. Higher prices increased net sales by $9 million in the current year. The unfavorable effects of foreign currency exchange rate changes decreased net sales $1 million in 2016 compared to 2015.

Earnings from Continuing Operations before Income Taxes and Segment Operating Profit

Earnings from continuing operations before income taxes were $356 million in 2016 compared to $268 million in 2015, an increase of $88 million, or 33%. This increase was primarily due to higher segment operating profit, partially offset by higher retained corporate costs and higher net interest expense.

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2016 was $882 million compared to $740 million in 2015, an increase of $142 million, or 19%. The increase was largely attributable to approximately $122 million of segment operating profit from the acquired Vitro Business. Higher selling prices also increased segment operating profit by $79 million. Partially offsetting this was the unfavorable effect of changes in foreign currency exchange rates ($26 million) and higher operating costs ($25 million), primarily due to inflation.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit—2015		$ 740
Price	$ 79	
Sales volume (excluding acquisitions)	(8)	
Operating costs	(25)	
Effects of changing foreign currency rates	(26)	
Vitro Acquisition	122	
Total net effect on segment operating profit		142
Segment operating profit—2016		$ 882

Europe: Segment operating profit in Europe in 2016 was $237 million compared with $209 million in 2015, an increase of $28 million, or 13%. The increase in sales volume discussed above improved segment operating profit by $7 million. Segment operating profit also benefited from $51 million in lower operating costs in 2016 than in the prior year due to energy deflation and improved operational performance. In 2015, production volumes were lower due to asset optimization projects that have now been completed. In addition, the region received an energy credit of approximately $10 million from a local government entity in 2016 that had been delayed for legislative reasons in 2015. The unfavorable effects of foreign currency exchange rates, especially the British pound, decreased segment operating profit by $14 million in 2016 compared to the prior year. Lower selling prices also decreased segment operating profit by $26 million.

North America: Segment operating profit in North America in 2016 was $299 million compared with $265 million in 2015, an increase of $34 million, or 13%. Segment operating profit from the acquired Vitro food and beverage glass container distribution business in the region contributed $28 million of incremental profit in 2016. Higher selling prices as a result of contractual pass throughs increased segment operating profit by $25 million in 2016 compared to 2015. Higher production volumes and improved operating efficiencies were more than offset by cost inflation. Together, this contributed to a $13 million reduction to segment operating profit in 2016. The unfavorable sales mix discussed above reduced segment operating profit by $5 million. Also, the unfavorable effects of the weakening of the Canadian dollar in relation to the U.S. dollar decreased segment operating profit by $1 million.

Latin America: Segment operating profit in Latin America in 2016 was $269 million compared with $183 million in 2015, an increase of $86 million, or 47%. Segment operating profit from the acquired Vitro food and beverage business contributed approximately $94 million of incremental profit to the region in 2016. Excluding the impact of the Vitro Acquisition, the decline in sales volume discussed above reduced segment operating profit by $13 million. The unfavorable effects of foreign currency rate changes, especially the Brazilian real, Colombian peso and Mexican peso, decreased segment operating profit by $14 million in the current year. Despite management interventions to contain costs and improve asset optimization, segment operating profit was also unfavorably impacted by $57 million of higher operating costs, primarily due to energy and soda ash inflation in the region. Partially offsetting these declines were higher selling prices that increased segment operating profit by $71 million in 2016. In addition, approximately $5 million of gains related to non-strategic asset sales benefited 2016.

Asia Pacific: Segment operating profit in Asia Pacific in 2016 was $77 million compared with $83 million in 2015, a decrease of $6 million, or 7%. Cost inflation, higher production downtime due to furnace rebuild activity and higher costs for intra-regional shipments drove operating costs $21 million higher in 2016 compared to the prior year. The favorable effects of foreign currency exchange rates increased segment operating profit by $3 million in 2016. The more favorable sales mix discussed above improved segment operating profit by $3 million. Higher selling prices also increased segment operating profit by $9 million in the current year.

Interest Expense, net

Net interest expense in 2016 was $272 million compared with $251 million in 2015. Net interest expense included $9 million and $42 million in 2016 and 2015, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense increased $54 million in the current year primarily due to higher debt levels associated with the Vitro Acquisition.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2016 was 33.4%, compared with 39.6% for 2015. The Company's effective tax rate for 2016 was lower than 2015 due to the impact of significant costs related to refinancing, restructuring and acquisition-related costs in 2015 within jurisdictions that generated little or no tax benefit.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2016 was approximately 24%, compared with approximately 25% for 2015.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2016 was $21 million compared to $23 million for 2015. The decrease in 2016 was largely attributable to the unfavorable effect of changes in foreign currency exchange rates.

Earnings from Continuing Operations Attributable to the Company

For 2016, the Company recorded earnings from continuing operations attributable to the Company of $216 million, or $1.32 per share (diluted), compared with earnings of $139 million, or $0.85 per share (diluted), for 2015. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2016 and 2015 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2016**	**2015**
Restructuring, asset impairment and other charges	$ (129)	$ (80)
Pension settlement charges	(98)	
Note repurchase premiums and write-off of finance fees	(9)	(42)
Gain on China land sale	71	
Tax benefit (charge) for certain tax adjustments	8	(8)
Net benefit (charge) for income tax on items above	(1)	15
Net impact of noncontrolling interests on items above	(2)	
Strategic transaction costs		(23)
Charge for asbestos-related costs		(16)
Acquisition-related fair value inventory adjustments		(22)
Acquisition-related fair value intangible adjustments		(10)
Total	$ (160)	$ (186)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2016 were reduced due to foreign currency effects compared to 2015.

This trend has continued into 2017 as a result of a strengthening U.S. dollar. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Items Excluded from Reportable Segment Totals

Retained Corporate Costs and Other

Retained corporate costs and other for 2017 were $104 million compared with $98 million for 2016. These costs were higher in 2017 primarily due to lower equity earnings from the Company's joint-venture with Constellation Brands in Mexico. Beginning in the first quarter of 2017, equity earnings from this joint-venture were recorded in the North America region. In prior years, equity earnings from this joint-venture were recorded in Retained Corporate Costs and Other as it was mostly in construction mode.

Retained corporate costs and other for 2016 were $98 million compared with $70 million for 2015. These costs were higher in 2016 primarily due to pension expense, management incentive compensation expense and the impact from currency hedges.

Restructuring, Asset Impairment and Other Charges

During 2017, the Company recorded charges totaling $77 million for restructuring, asset impairment and other charges. These charges reflect $72 million of plant and furnace closures, primarily in the Latin America and Europe regions and other charges of $5 million.

During 2016, the Company recorded charges totaling $129 million for restructuring, asset impairment and other charges. These charges reflect $98 million of plant and furnace closures, primarily in the European and Latin America regions. In addition, other charges of $31 million were recorded during 2017, primarily related to an impairment charge recorded at one of the Company's equity investments.

During 2015, the Company recorded charges totaling $80 million for restructuring, asset impairment and other charges. These charges reflect $63 million of completed furnace closures, primarily in the North America and Latin America regions and other charges of $17 million.

See Note 8 to the Consolidated Financial Statements for additional information.

Pension Settlement Charges

During 2017, the Company recorded charges totaling $218 million for pension settlements in the United States, Canada and United Kingdom.

During 2016, the Company recorded charges totaling $98 million for pension settlements in the United States.

See Note 9 to the Consolidated Financial Statements for additional information.

Charge for Asbestos-Related Costs

For the years ended December 31, 2017 and 2016, there was no adjustment required for asbestos-related costs, compared to the charge of $16 million for the year ended December 31, 2015, as a result of the Company's comprehensive annual legal review of asbestos-related liabilities and costs. As part of its future comprehensive annual reviews, the Company will estimate its total asbestos-related liability and such reviews may result in adjustments to the liability accrued at the time of the review. The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty.

See "Critical Accounting Estimates" and Note 12 to the Consolidated Financial Statements for additional information.

Gain on China Land Compensation

During 2016, the Company recorded a gain of $71 million related to compensation received for land that the Company was required to return to the Chinese government.

Acquisition-related Fair Value Adjustments and Strategic Transaction Costs

During 2015, the Company recorded charges of $23 million for strategic transaction costs related to the Vitro Acquisition.

During 2015, the Company recorded charges of $22 million for acquisition-related fair value inventory adjustments related to the Vitro Acquisition. These charges were due to the accounting rules requiring inventory purchased in a business combination to be marked up to fair value and then recorded as an increase to cost of goods sold as the inventory is sold. During 2015, the Company also recorded charges of $10 million for acquisition-related fair value intangible asset adjustments related to trademark assets with short-term lives acquired as part of the Vitro Acquisition.

Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") ruled that OI European Group B.V. ("OIEG"), a subsidiary of the Company, is free to pursue the enforcement of a prior arbitration award (the "Award") against Venezuela. As of December 31, 2017, that Award amounts to more than $500 million, including reimbursement of expenses and accrued interest. Venezuela's application to annul the Award was heard by an ad hoc committee of the ICSID in September 2017, but no decision has been rendered yet.

On July 31, 2017, OIEG sold its right, title and interest in amounts due under the Award to an Ireland-domiciled investment fund. Under the terms of the sale, OIEG received a payment, in cash, at closing equal to $115 million (the "Cash Payment"). OIEG may also receive additional payments in the future ("Deferred Amounts") calculated based on the total compensation that is received from Venezuela as a result of collection efforts or as settlement of the Award with Venezuela. In the event that the Award is partially or completely annulled by the ICSID ad hoc annulment committee, OIEG may be required to repay to the purchaser up to the entire amount of the Cash Payment based on a formula tied to the amount of the Award (if any) that is annulled. In addition, OIEG's right to receive any Deferred Amounts is subject to the limitations described below.

OIEG's interest in any amounts received in the future from Venezuela in respect of the Award is limited to a percentage of such recovery after taking into account reimbursement of the Cash Payment to the purchaser and reimbursement of legal fees and expenses incurred by the Company and the purchaser. OIEG's percentage of such recovery will also be reduced over time. Because the Award has yet to be satisfied, the annulment proceeding is pending, and the ability to successfully enforce the Award in countries that are party to the ICSID Convention is subject to significant challenges, the Company is unable to reasonably predict the amount of recoveries from the Award, if any, to which the Company may be entitled in the future. Any future amounts that the Company may receive from the Award are highly speculative and the timing of any such future payments, if any, is highly uncertain. As such, there can be no assurance that the Company will receive any future payments under the Award beyond the Cash Payment. Except as noted above in connection with the annulment proceeding that is pending before the ICSID ad hoc committee, the Cash Payment is not subject to any forfeiture or future adjustment.

A separate arbitration involving other subsidiaries of the Company was initiated in 2012 to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants. However, in November 2017, ICSID issued an award that dismissed this arbitration on jurisdiction grounds. The Company is currently exploring potential next steps.

As of December 31, 2017, the Company deferred the gain contingency on the sale of its rights in amounts due under the Award pending the ad hoc committee of the ICSID rendering its decision regarding Venezuela's application to annul the Award.

The loss from discontinued operations of $3 million and $7 million, for the years ended December 31, 2017 and 2016, respectively, relates to ongoing costs for the Venezuelan expropriation.

Vitro Acquisition

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country, manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

Capital Resources and Liquidity

As of December 31, 2017, the Company had cash and total debt of $492 million and $5.3 billion, respectively, compared to $492 million and $5.3 billion, respectively, as of December 31, 2016. A significant portion of the cash was held in mature, liquid markets where the Company has operations, such as the U.S., Europe and Australia, and is readily available to fund global liquidity requirements. The amount of cash held in non-U.S. locations as of December 31, 2017 was $451 million.

Current and Long-Term Debt

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on September 28, 2017 (the "Amended Agreement").

At December 31, 2017, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility and a $1,575 million term loan A facility ($1,148 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2017, the Company had unused credit of $888 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2017 was 3.17%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents ("Net Indebtedness"), by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of 4.0x for the fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

On September 28, 2017, the Company entered into Amendment No. 5 ("Amendment No. 5") to the Amended Agreement. Amendment No. 5 changes the calculation of the Total Leverage Ratio by excluding from the calculation of Net Indebtedness ordinary course revolver borrowings (except to the extent such borrowings existed at the prior year end) and non-recourse factoring or securitization debt.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2017, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024 (the "Senior Notes due 2024"). The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement. In March 2017, the Company expanded its borrowings under the Senior Notes due 2024 by issuing €225 million of additional notes that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $237 million and were used to repay a portion of the Company's revolving credit facility.

During March 2017, the Company purchased in a tender offer approximately $228 million aggregate principal amount of its 7.80% Senior Debentures due in 2018. In November 2017, the remaining $22 million of the 7.80% Senior Debentures were repurchased by the Company, the indenture relating thereto was discharged, and all collateral and guarantees thereunder were released. The Company recorded $18 million of additional interest charges for note repurchase premiums and the write-off of unamortized finance fees related to these actions.

During December 2017, the Company issued senior notes with a face value of $310 million that bear interest at 4.000% and are due March 15, 2023. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $305 million and were used to repay a portion of the term loan A facility under the Amended Agreement.

In order to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt, the Company has entered into a series of interest rate swap agreements. These swap agreements were accounted for as fair value hedges (see Note 7 to the Consolidated Financial Statements).

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2017 and 2016 is as follows:

	2017	2016
Balance (included in short-term loans)	$ 133	$ 152
Weighted average interest rate	0.76 %	0.74 %

Cash Flows

Operating activities: Cash provided by continuing operating activities was $724 million for 2017 compared to $758 million for 2016. The decrease in cash provided by continuing operating activities in 2017 was primarily due to an increase in working capital of $89 million compared to a decrease of $90 million in 2016. This increase in working capital in 2017 was primarily due to the nonreccurrence of a $128 million refund the Company received in 2016 on value added taxes previously paid in conjunction with an acquisition. Lower

pension contributions and asbestos-related payments were more than offset by higher amounts of cash paid for restructuring activities in 2017 compared to the prior year.

Investing activities: Cash utilized in continuing investing activities was $466 million for 2017 compared to $417 million for 2016. Capital spending for property, plant and equipment during 2017 was $441 million, compared with $454 million in the prior year.

Acquisition activities were $39 million and $56 million in 2017 and 2016, respectively, and were primarily related to contributions made to the Company's joint venture with Constellation Brands in Nava, Mexico. In 2017, the Company received $14 million in net proceeds from the disposal of assets compared to $85 million in 2016. In 2016, these proceeds included the sale of land use rights in China that did not repeat in 2017. Also, in 2017, a subsidiary of the Company received $115 million from selling its right, title and interest in amounts due under a prior arbitration award against Venezuela related to a discontinued operation. See Note 20 to the Consolidated Financial Statements for additional information.

In October 2017, the Company signed an agreement to expand its joint venture with Constellation. To meet rising demand from Constellation's adjacent brewery, the newly-expanded relationship provides for the addition of a fifth furnace, which is expected to be operational by the end of 2019. This capacity expansion, which is estimated to cost approximately $140 million, will be financed by equal contributions from both partners throughout 2018 and 2019. The term of the joint venture agreement was also expanded for ten additional years, to 2034.

Financing activities: Cash utilized in financing activities was $392 million for 2017 compared to $228 million of cash utilized by financing activities for 2016. Financing activities in 2017 included additions to long-term debt of $1,458 million, which included the issuances of €225 million and $310 million of senior notes. Financing activities in 2017 also included the repayment of long-term debt of $1,764 million, which included the repayment of floating-rate debt in the Company's Senior Secured Credit Facility and the repurchase of the 2018 Senior Debentures. Financing activities in 2016 included additions to long-term debt of $1,235 million, which included the issuance of €500 million of senior notes. Financing activities in 2016 also included the repayment of long-term debt of $1,453 million, which included the repayment of floating-rate debt in the Company's Senior Secured Credit Facility. Borrowings under short-term loans decreased by $36 million in 2017. The Company paid approximately $28 million in note repurchase premiums and finance fees in 2017 compared to $9 million in 2016. The Company paid $17 million and $16 million in distributions to noncontrolling interests in 2017 and 2016, respectively.

In January 2018, the Board of Directors authorized a $400 million share repurchase program. The Company expects to repurchase approximately $100 million in shares of the Company's stock in 2018.

The Company anticipates that cash flows from its operations and from utilization of credit available under the Amended Agreement will be sufficient to fund its operating and seasonal working capital needs, debt service and other obligations on a short-term (twelve months) and long-term basis. Based on the Company's expectations regarding future payments for lawsuits and claims and also based on the Company's expected operating cash flow, the Company believes that the payment of any deferred amounts of previously settled or otherwise determined lawsuits and claims, and the resolution of presently pending and anticipated future lawsuits and claims associated with asbestos, will not have a material adverse effect upon the Company's liquidity on a short-term or long-term basis.

Contractual Obligations and Off-Balance Sheet Arrangements

The following information summarizes the Company's significant contractual cash obligations at December 31, 2017 (dollars in millions).

	Payments due by period				
	Total	Less than one year	1–3 years	3–5 years	More than 5 years
Contractual cash obligations:					
Long-term debt	$ 5,078	$ 4	$ 1,750	$ 892	$ 2,432
Capital lease obligations	54	7	13	12	22
Operating leases	258	73	94	54	37
Interest(1)	1,051	226	386	252	187
Purchase obligations(2)	1,910	566	693	290	361
Pension benefit plan contributions(3)	35	35			
Postretirement benefit plan benefit payments(1)	100	11	20	21	48
Equity affiliate investment obligation(4)	70	30	40		
Total contractual cash obligations	$ 8,556	$ 952	$ 2,996	$ 1,521	$ 3,087

	Amount of commitment expiration per period				
	Total	Less than one year	1–3 years	3–5 years	More than 5 years
Other commercial commitments:					
Standby letters of credit	$ 54	$ 54	$ —	$ —	$ —
Total commercial commitments	$ 54	$ 54	$ —	$ —	$ —

(1) Amounts based on rates and assumptions at December 31, 2017.

(2) The Company's purchase obligations consist principally of contracted amounts for energy and molds. In cases where variable prices are involved, current market prices have been used. The amount above does not include ordinary course of business purchase orders because the majority of such purchase orders may be canceled. The Company does not believe such purchase orders will adversely affect its liquidity position.

(3) In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $35 million in 2018. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly.

(4) In 2014, the Company entered into a joint venture agreement with Constellation Brands to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant over the next two years. The Company expects to contribute approximately $70 million for the joint venture's expansion plans through 2019.

The Company is unable to make a reasonably reliable estimate as to when cash settlement with taxing authorities may occur for its unrecognized tax benefits. Therefore, the liability for unrecognized tax benefits is not included in the table above. See Note 10 to the Consolidated Financial Statements for additional information.

Critical Accounting Estimates

The Company's analysis and discussion of its financial condition and results of operations are based upon its consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The Company evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical and other factors believed to be reasonable under the circumstances at the time the financial statements are issued. The

results of these estimates may form the basis of the carrying value of certain assets and liabilities and may not be readily apparent from other sources. Actual results, under conditions and circumstances different from those assumed, may differ from estimates.

The impact of, and any associated risks related to, estimates and assumptions are discussed within Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in the Notes to the Consolidated Financial Statements, if applicable, where estimates and assumptions affect the Company's reported and expected financial results.

The Company believes that accounting for the impairment of long-lived assets, pension benefit plans, contingencies and litigation related to its asbestos liability, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements.

Impairment of Long-Lived Assets

Property, Plant and Equipment—The Company tests for impairment of PP&E whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. PP&E held for use in the Company's business is grouped for impairment testing at the lowest level for which cash flows can reasonably be identified, typically a segment or a component of a segment. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. PP&E held for sale is reported at the lower of carrying amount or fair value less cost to sell.

Impairment testing requires estimation of the fair value of PP&E based on the discounted value of projected future cash flows generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include, among other things: industry and market conditions, sales volume and prices, production costs and inflation. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The Company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

Goodwill—Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise). Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then goodwill impairment must be calculated. Goodwill impairment will be calculated by comparing the reporting unit's fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 are based on significant unobservable inputs, such as projected future cash flows of the reporting units, discount rates, and terminal business value, and are classified as Level 3 in the fair value hierarchy. The Company's projected future cash flows incorporates management's best estimates of the expected future results including, but not limited to, price trends, customer demand, material costs, asset replacement costs and any other known factors.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment, also known as a component. Two or more components of an operating segment shall be aggregated into a single reporting unit if the components have similar economic characteristics, based on an assessment of various factors. The Company has determined that the Europe and North America segments are reporting units. The Company aggregated the components of the Latin America and Asia Pacific segments into single reporting units equal to the reportable segments. The aggregation of the components of these segments was based on their economic similarity as determined by the Company using a number of quantitative and qualitative factors, including gross margins, the manner in which the Company operates the business, the consistent nature of products, services, production processes, customers and methods of distribution, as well as the level of shared resources and assets between the components.

During the fourth quarter of 2017, the Company completed its annual impairment testing and determined that no impairment of goodwill existed. Goodwill at December 31, 2017 totaled approximately $2.6 billion, representing 27% of total assets. The Company has four reporting units of which three of the reporting units have goodwill and include; approximately $900 million of recorded goodwill to the Company's Europe segment, approximately $600 million of recorded goodwill to the Company's Latin America segment and approximately $1.1 billion of recorded goodwill to the Company's North America segment. The testing performed as of October 1, 2017, indicated a substantial excess of BEV over book value for Europe, North America and Latin America. If the Company's projected future cash flows were substantially lower, or if the assumed weighted average cost of capital was substantially higher, the testing performed as of October 1, 2017, may have indicated an impairment of one or more of these reporting units and, as a result, the related goodwill may also have been impaired. Any impairment charges that the Company may take in the future could be material to its consolidated results of operations and financial condition. However, less significant changes in projected future cash flows or the assumed weighted average cost of capital would not have indicated an impairment. For example, if projected future cash flows had been decreased by 5%, or if the weighted average cost of capital had been increased by 5%, or both, the resulting lower BEV's would still have exceeded the book value of each of these reporting units.

During the time subsequent to the annual evaluation, and at December 31, 2017, the Company considered whether any events and/or changes in circumstances had resulted in the likelihood that the goodwill of any of its reporting units may have been impaired and has determined that no such events have occurred. The Company will monitor conditions throughout 2018 that might significantly affect the projections and variables used in the impairment test to determine if a review prior to October 1 may be appropriate. If the results of impairment testing confirm that a write down of goodwill is necessary, then the Company will record a charge in the fourth quarter of 2018, or earlier if appropriate. In the event the Company would be required to record a significant write down of goodwill, the charge would have a material adverse effect on reported results of operations and net worth.

Other Long-Lived Assets—Intangibles—Other long-lived assets consist primarily of purchased customer relationships intangibles and are amortized using the accelerated amortization method over their estimated useful lives. The Company reviews these assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. In the event that a decline in fair value of an asset occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. The test for impairment would require the Company to make estimates about fair value, which may be determined based on discounted cash flows, third party appraisals or other methods that provide appropriate estimates of value. The Company continually monitors the carrying value of their assets.

Pension Benefit Plans

Significant Estimates—The determination of pension obligations and the related pension expense or credits to operations involves significant estimates. The most significant estimates are the discount rate used to calculate the actuarial present value of benefit obligations and the expected long-term rate of return on plan assets. The Company uses discount rates based on yields of high quality fixed rate debt securities at the end of the year. At December 31, 2017, the weighted average discount rate was 3.69 % and 2.76 % for U.S. and non-U.S. plans, respectively. The Company uses an expected long-term rate of return on assets that is based on both past performance of the various plans' assets and estimated future performance of the assets. Due to the nature of the plans' assets and the volatility of debt and equity markets, actual returns may vary significantly from year to year. The Company refers to average historical returns over longer periods (up to 10 years) in determining its expected rates of return because short-term fluctuations in market values do not reflect the rates of return the Company expects to achieve based upon its long-term investing strategy. For purposes of determining pension charges and credits in 2017, the Company's estimated weighted average expected long-term rate of return on plan assets is 7.50% for U.S. plans and 6.32% for non-U.S. plans compared to 7.50% for U.S. plans and 7.15% for non-U.S. plans in 2016. The Company recorded pension expense from continuing operations (exclusive of settlement charges) of $21 million, $23 million, and $24 million for the U.S. plans in 2017, 2016, and 2015, respectively, and $8 million, $8 million, and $7 million for the non-U.S. plans in 2017, 2016, and 2015, respectively. Depending on currency translation rates, the Company expects to record approximately $38 million of total

pension expense for the full year of 2018. The 2018 pension expense will reflect a 7.25% and 5.52% expected long-term rate of return for the U.S. assets and non-U.S. assets, respectively.

Future effects on reported results of operations depend on economic conditions and investment performance. For example, a one-half percentage point change in the actuarial assumption regarding discount rates used to calculate plan liabilities or in the expected rate of return on plan assets would result in a change of approximately $6 million and $11 million, respectively, in the pretax pension expense for the full year 2018.

Recognition of Funded Status—The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

Contingencies and Litigation Related to Asbestos Liability

For many years, the Company has conducted a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its current annual comprehensive legal review, the Company provides historical claims filing data to a third party consultant with expertise in predicting future claims filings based on actuarial inputs such as disease incidence and mortality. The Company uses these estimates of total future claims, along with its legal judgment regarding an estimation of future disposition costs and related legal costs, as inputs to develop a reasonable estimate of probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are described in the Risk Factors section and in Note 12 to the Consolidated Financial Statements. Changes in these significant assumptions have the potential to impact the Company's asbestos-related liability.

In addition, if trends relating to the Company's actual claims filings materially differ, up or down, from the amounts predicted, the total number of estimated claims indicated by future actuarial analyses could change significantly. Significant changes in the total number of predicted claims could impact the total predicted asbestos-related liability, which in turn could result in a material charge or credit to the Company's results of operations.

The Company uses historical data for both indemnity and related legal costs, as well as its legal judgment and expectations about future inflationary and deflationary drivers, to predict the estimated disposition cost per claim and the legal costs for the remainder of the litigation. If trends relating to the actual per claim cost differ materially, up or down, from the previously estimated amount, the Company may in the future revise its estimate of its asbestos-related liability. The same may also be true with respect to legal costs. Significant changes in the estimated asbestos-related liability could result in a material charge or credit to the Company's results of operations.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $582 million as of December 31, 2017. The Company estimates that reasonably possible losses could result in asbestos-related liabilities up to $725 million. This estimate of additional reasonably possible loss reflects a qualitative legal judgment regarding the nature of contingencies that could impact future claims and legal costs, which include, but are not limited to, successful attempts by plaintiffs to challenge existing legal barriers to liability, enact plaintiff-oriented liability or damage-related legislation, establish new theories of liability, or revive long-dormant inventories of non-mesothelioma cases. However, it is also possible that the ultimate amount of asbestos-related liabilities could be above this estimate.

Income Taxes

The Company accounts for income taxes as required by general accounting principles under which management judgment is required in determining income tax expense/(benefit) and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable and tax deductible temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the effective settlement of uncertain tax positions. The Company has received tax assessments in excess of established reserves for uncertain tax positions. The Company is contesting these tax assessments, and will continue to do so, including pursuing all available remedies such as appeals and litigation, if necessary.

The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using enacted tax rates and for tax attributes such as operating losses and tax credit carryforwards. Deferred tax assets and liabilities are determined separately for each tax jurisdiction on a separate or on a consolidated tax filing basis, as applicable, in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income of the appropriate character within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- taxable income in prior carryback years;
- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards; and
- prudent and feasible tax planning strategies that the Company would be willing to undertake to prevent a deferred tax asset from otherwise expiring.

The assessment regarding whether a valuation allowance is required or whether a change in judgment regarding the valuation allowance has occurred also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of cumulative losses in recent years;
- duration of statutory carryforward and carryback periods;
- statutory limitations against utilization of tax attribute carryforwards against taxable income;
- historical experience with tax attributes expiring unused; and
- near and medium term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is generally difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last two years and current year results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred

tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain tax jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

Based on the evidence available including a lack of sustainable earnings, the Company in its judgment previously recorded a valuation allowance against substantially all of its net deferred tax assets in the United States. If a change in judgment regarding this valuation allowance were to occur in the future, the Company will record a potentially material deferred tax benefit, which could result in a favorable impact on the effective tax rate in that period. The utilization of tax attributes to offset taxable income reduces the amount of deferred tax assets subject to a valuation allowance.

The U.S. Tax Cuts and Jobs Act ("Act") was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. *Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cut and Jobs Act*, allows filers to use prior year methodologies or estimates of the anticipated current impact of the Act in the preparation of their 2017 financial statements. At December 31, 2017, the Company had not completed its accounting for the tax effects of enactment of the Act; however, in certain cases, as described below, it has made a reasonable estimate of the effects on its existing deferred tax balances and the one-time transition tax. In all cases, the Company will continue to make and refine its calculations as additional data is gathered and further analysis is completed. In addition, the Company's estimates may also be affected as it gains a more thorough understanding of the tax law and certain aspects of the Act are clarified by the taxing authorities. Any adjustments to these provisional amounts will be reported as a component of tax expense (benefit) in the reporting period in which any such adjustments are determined, which will be no later than the fourth quarter of 2018.

The Company remeasured certain U.S. deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21%. However, the Company is still analyzing certain aspects of the Act and refining its calculations, which could potentially affect the measurement of these balances or potentially give rise to new deferred tax amounts. The provisional amount recorded related to the remeasurement of net deferred tax assets was a net tax charge of $162 million, which was fully offset by an adjustment to valuation allowance. Additionally, the Company recorded a deferred tax benefit of $11 million for the reduction of a deferred tax liability related to an indefinite lived intangible asset. The Act did not change the Company's judgment regarding the realizability of these net deferred tax assets.

The one-time transition tax is based on the Company's total post-1986 earnings and profits ("E&P") that were previously deferred from U.S. income taxes and for which no deferred taxes were recorded since the Company previously claimed the indefinite reinvestment assertion exception on these earnings. The Company recorded a provisional amount for its one-time transition tax liability of $2 million, net of foreign tax credits. The Company has not yet completed its calculation of the total post-1986 E&P and associated foreign tax credits for these foreign subsidiaries. Further, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. This amount may change when the Company finalizes the calculation of post-1986 foreign E&P previously deferred from U.S. federal taxation and finalizes the amounts held in cash or other specified assets. The Company anticipates that additional guidance and clarification regarding the implementation of the transition tax will be issued by federal and state taxing authorities and this estimate is, therefore, subject to future refinement.

No additional income taxes (other than those related to the foreign earnings inclusion taxable under the transition tax) have been provided for any remaining undistributed foreign earnings not subject to the transition

tax, or any additional outside basis difference inherent in these entities, as these amounts provisionally continue to be indefinitely reinvested in foreign operations. The Company provisionally continues to apply ASC 740 based on the provisions of the tax laws that were in effect immediately prior to the Act being enacted since the Company cannot complete its analysis of whether a change in its indefinite reinvestment assertion would occur until additional guidance is available and the transition tax liability computation is complete.

The Company has elected to treat Global Intangible Low Taxed Income (GILTI) which is effective in 2018 for the Company as a period cost.

Additional guidance is likely to be issued providing further clarification on the application of the Act. Further, it is reasonable to expect that global taxing authorities will be reviewing current legislation for potential modifications in reaction to the implementation of the U.S. legislation. This additional guidance, along with the potential for additional global tax legislation changes, could have a material adverse impact on net income and cash flow by impacting significant deductions or income inclusions.

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Market risks relating to the Company's operations result primarily from fluctuations in foreign currency exchange rates, changes in interest rates, and changes in commodity prices, principally energy and soda ash. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates. The Company also uses certain derivative instruments to mitigate a portion of the risk associated with fluctuating energy prices in its North American region. These instruments carry varying degrees of counterparty credit risk. To mitigate this risk, the Company has defined a financial counterparty policy that established criteria to select qualified counterparties based on credit ratings and CDC spreads. The policy also limits the exposure with individual counterparties. The Company monitors these exposures quarterly. The Company does not enter into derivative financial instruments for trading purposes.

Foreign Currency Exchange Rate Risk

Earnings of operations outside the United States

A substantial portion of the Company's operations are conducted by subsidiaries outside the U.S. The primary international markets served by the Company's subsidiaries are in Canada, Australia, China, Latin America (principally Brazil, Colombia, and Mexico), and Europe (principally France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom). In general, revenues earned and costs incurred by the Company's major international operations are denominated in their respective local currencies. Consequently, the Company's reported financial results could be affected by factors such as changes in foreign currency exchange rates or highly inflationary economic conditions in the international markets in which the Company's subsidiaries operate. When the U.S. dollar strengthens against foreign currencies, the reported U.S. dollar value of local currency earnings generally decreases; when the U.S. dollar weakens against foreign currencies, the reported U.S. dollar value of local currency earnings generally increases. For the years ended December 31, 2017, 2016, and 2015, the Company did not have any significant foreign subsidiaries whose functional currency was the U.S. dollar.

Borrowings not denominated in the functional currency

Because the Company's subsidiaries operate within their local economic environment, the Company believes it is appropriate to finance those operations with borrowings denominated in the local currency to the extent practicable where debt financing is desirable or necessary. This strategy mitigates the risk of reported losses or gains in the event the foreign currency strengthens or weakens against the U.S. dollar. Considerations which influence the amount of such borrowings include long- and short-term business plans, tax implications, and the availability of borrowings with acceptable interest rates and terms.

Available excess funds of a subsidiary may be redeployed through intercompany loans to other subsidiaries for debt repayment, capital investment, or other cash requirements. The intercompany loans give rise to foreign

currency exchange rate risk, which the Company mitigates through the use of forward exchange contracts that effectively swap the intercompany loan and related interest to the appropriate local currency.

Hedges of Multiple Risks

The Company has variable-interest rate borrowings denominated in currencies other than the functional currency of the borrowing subsidiaries. As a result, the Company is exposed to fluctuations in both the underlying variable interest rate and the currency of the borrowing against the subsidiaries' functional currency. The Company uses derivatives to manage these exposures and designates these derivatives as cash flow hedges of both interest rate and foreign exchange risks. The effective portion of changes in the fair value of derivatives designated and that qualify as cash flow hedges of both interest rate risk and foreign exchange risk is recorded in Accumulated OCI and is subsequently reclassified into earnings in the period for which the hedged forecasted transaction affects earnings. The ineffective portion of the change in fair value of the derivative is recognized directly in earnings. During the second quarter of 2017, one of the Company's Euro-functional subsidiaries entered into a cross-currency interest rate swap to manage its exposure to fluctuations in the variable interest rate and the U.S. dollar-Euro exchange rate arising from a U.S. dollar denominated borrowing. This swap involves exchanging fixed rate Euro interest payments for floating rate U.S. dollar interest receipts both of which will occur at the forward exchange rates in effect upon entering into the instrument. This instrument, which settled in the third quarter of 2017, had a pay fixed notional amount of €81 million and a receive floating notional amount of $90 million. There was no ineffectiveness related to these cross-currency interest rate swaps for the year ended December 31, 2017.

During the fourth quarter of 2017, one of the Company's Euro-functional subsidiaries entered into a series of cross-currency interest rate swaps to manage its exposure to fluctuations in the Euro-U.S dollar exchange rate arising from a U.S. dollar denominated borrowing. These swaps involve exchanging fixed rate Euro interest payments for fixed rate U.S. dollar interest receipts both of which will occur at the forward exchange rates in effect upon entering into the instrument. An unrecognized loss of less than $1 million at December 31, 2017 related to these cross-currency interest rate swaps was included in Accumulated OCI, and will be reclassified into earnings within the next twelve months. These instruments, in the aggregate, have a pay fixed notional amount of €263 million and a receive notional amount of $310 million and reach final maturity in 2023. There was no ineffectiveness related to these cross-currency interest rate swaps for the year ended December 31, 2017.

Interest Rate Risk

The Company's interest expense is most sensitive to changes in the general level of interest rates applicable to the term loans under its Secured Credit Agreement (see Note 11 to the Consolidated Financial Statements for further information). The Company's interest rate risk management objective is to limit the impact of interest rate changes on net income and cash flow, while minimizing interest payments and expense. To achieve this objective, the Company regularly evaluates its mix of fixed and floating-rate debt, and, from time to time, may enter into interest rate swap agreements.

Interest Rate Swap Agreements

In the third and fourth quarters of 2017, the Company entered into a series of interest rate swap agreements with a total notional amount of €725 million that reach final maturity in 2024. The swaps were executed in order to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt and to reduce net interest payments and expense in the near-term.

The Company's fixed-to-variable interest rate swaps were accounted for as fair value hedges. The relevant terms of the swap agreements match the corresponding terms of the notes and therefore there is no hedge ineffectiveness. The Company recorded the net of the fair market values of the swaps as a long-term liability and short-term asset along with a corresponding net decrease in the carrying value of the hedged debt.

Under the swaps, the Company receives fixed rate interest amounts (equal to the interest on the corresponding hedged note) and pays interest at a six-month Euribor rate (set in arrears) plus a margin spread (see

table below). The interest rate differential on each swap is recognized as an adjustment of interest expense during each six-month period over the term of the agreement.

The following table provides information about the Company's interest rate sensitivity related to its significant debt obligations, including interest rate swap agreements, at December 31, 2017. The table presents principal cash flows and related weighted-average interest rates by expected maturity date.

(Dollars in millions)	2018	2019	2020	2021	2022	Thereafter	Total	Fair Value at 12/31/2017
Long-term debt at variable rate:								
Principal by expected maturity	$ 2	$ 2	$ 1,150	$ 2	$ —	$ 848	$ 2,004	$ 2,004
Avg. principal outstanding	$ 2,003	$ 2,001	$ 1,425	$ 849	$ 848	$ 848		
Avg. interest rate	2.90 %	2.90 %	2.80 %	2.55 %	2.55 %	2.55 %		
Long-term debt at fixed rate:								
Principal by expected maturity	$ 9	$ 9	$ 603	$ 399	$ 503	$ 1,605	$ 3,128	$ 3,453
Avg. principal outstanding	$ 3,128	$ 3,128	$ 2,533	$ 2,133	$ 1,637	$ 639		
Avg. interest rate	5.36 %	5.36 %	5.03 %	5.05 %	5.07 %	5.90 %		

The Company believes the near term exposure to interest rate risk of its debt obligations has not changed materially since December 31, 2017.

In addition, the determination of pension obligations and the related pension expense or credits to operations involves significant estimates. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly. The discount rate is a significant estimate that is used to calculate the actuarial present value of benefit obligations and is based on yields of high quality fixed rate debt securities at the end of the year. For example, a one-half percentage point change in the actuarial assumption regarding discount rates used to calculate plan liabilities or in the expected rate of return on plan assets would result in a change of approximately $6 million and $11 million, respectively, in the pretax pension expense for the full year 2018.

Commodity Price Risk

The Company has exposure to commodity price risk, principally related to energy. In North America, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. The Company continually evaluates the natural gas market and related price risk and periodically enters into commodity forward contracts in order to hedge a portion of its usage requirements. The majority of the sales volume in North America is tied to customer contracts that contain provisions that pass the price of natural gas to the customer. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. At December 31, 2017, the Company had entered into commodity forward contracts covering approximately 8,800,000 MM BTUs, some of which relate to customer requests to lock the price of natural gas. In Europe, the Company enters into fixed price contracts for a significant amount of its energy requirements. These contracts typically have terms of 3 years or less.

The Company believes the near term exposure to commodity price risk of its commodity forward contracts was not material at December 31, 2017.

Forward-Looking Statements

This document contains "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Section 27A of the Securities Act of 1933. Forward-looking statements reflect the Company's current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words "believe," "expect," "anticipate," "will," "could," "would," "should," "may," "plan," "estimate," "intend," "predict," "potential," "continue," and the negatives of these words and other similar expressions generally identify forward-looking statements. It is possible the Company's future financial performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) foreign currency fluctuations relative to the U.S. dollar, (2) changes in capital availability or cost, including interest rate fluctuations and the ability of the Company to refinance debt at favorable terms, (3) the general political, economic and competitive conditions in markets and countries where the Company has operations, including uncertainties related to economic and social conditions, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, and changes in tax rates and laws, (4) the Company's ability to generate sufficient future cash flows to ensure the Company's goodwill is not impaired, (5) consumer preferences for alternative forms of packaging, (6) cost and availability of raw materials, labor, energy and transportation, (7) the Company's ability to manage its cost structure, including its success in implementing restructuring plans and achieving cost savings, (8) consolidation among competitors and customers, (9) the Company's ability to acquire businesses and expand plants, integrate operations of acquired businesses and achieve expected synergies, (10) unanticipated expenditures with respect to environmental, safety and health laws, (11) unanticipated operational disruptions, including higher capital spending, (12) the Company's ability to further develop its sales, marketing and product development capabilities, (13) the failure of the Company's joint venture partners to meet their obligations or commit additional capital to the joint venture, (14) the Company's ability to prevent and detect cybersecurity threats against its information technology systems, (15) the Company's ability to accurately estimate its total asbestos-related liability or to control the timing and occurrence of events related to asbestos-related claims, (16) changes in U.S. trade policies, (17) the Company's ability to achieve its strategic plan, and the other risk factors discussed in this Annual Report on Form 10-K for the year ended December 31, 2017 and any subsequently filed Quarterly Report on Form 10-Q. It is not possible to foresee or identify all such factors. Any forward-looking statements in this document are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company's results of operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward-looking statements contained in this document.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Owens-Illinois, Inc. (the Company) as of December 31, 2017 and 2016, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and financial statement schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company at December 31, 2017 and 2016, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 14, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 1987.
Toledo, Ohio
February 14, 2018

Owens-Illinois, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions, except per share amounts

Years ended December 31,	2017	2016	2015
Net sales	$ 6,869	$ 6,702	$ 6,156
Cost of goods sold	(5,736)	(5,490)	(5,046)
Gross profit	1,133	1,212	1,110
Selling and administrative expense	(502)	(503)	(476)
Research, development and engineering expense	(60)	(65)	(64)
Interest expense, net	(268)	(272)	(251)
Equity earnings	77	60	60
Other expense, net	(105)	(76)	(111)
Earnings from continuing operations before income taxes	275	356	268
Provision for income taxes	(70)	(119)	(106)
Earnings from continuing operations	205	237	162
Loss from discontinued operations	(3)	(7)	(4)
Net earnings	202	230	158
Net (earnings) attributable to noncontrolling interests	(22)	(21)	(23)
Net earnings attributable to the Company	$ 180	$ 209	$ 135
Amounts attributable to the Company:			
Earnings from continuing operations	$ 183	$ 216	$ 139
Loss from discontinued operations	(3)	(7)	(4)
Net earnings	$ 180	$ 209	$ 135
Basic earnings per share:			
Earnings from continuing operations	$ 1.12	$ 1.33	$ 0.86
Loss from discontinued operations	(0.01)	(0.04)	(0.03)
Net earnings	$ 1.11	$ 1.29	$ 0.83
Diluted earnings per share:			
Earnings from continuing operations	$ 1.11	$ 1.32	$ 0.85
Loss from discontinued operations	(0.01)	(0.04)	(0.03)
Net earnings	$ 1.10	$ 1.28	$ 0.82

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2017	2016	2015
Net earnings	$ 202	$ 230	$ 158
Other comprehensive income (loss):			
Foreign currency translation adjustments	70	(224)	(529)
Pension and other postretirement benefit adjustments, net of tax	289	52	(4)
Change in fair value of derivative instruments, net of tax	(8)	13	(6)
Other comprehensive income (loss)	351	(159)	(539)
Total comprehensive income (loss)	553	71	(381)
Comprehensive income attributable to noncontrolling interests	(27)	(17)	(7)
Comprehensive income (loss) attributable to the Company	$ 526	$ 54	$ (388)

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2017	2016
Assets		
Current assets:		
Cash and cash equivalents	$ 492	$ 492
Trade receivables, net of allowances of $34 million and $32 million at December 31, 2017 and 2016, respectively	663	580
Inventories	1,036	983
Prepaid expenses and other current assets	229	199
Total current assets	2,420	2,254
Other assets:		
Equity investments	525	433
Pension assets	49	40
Other assets	602	602
Intangibles	439	464
Goodwill	2,590	2,462
Total other assets	4,205	4,001
Property, plant and equipment:		
Land, at cost	255	241
Buildings and equipment, at cost:		
Buildings and building equipment	1,180	1,090
Factory machinery and equipment	5,015	4,496
Transportation, office and miscellaneous equipment	96	85
Construction in progress	303	238
	6,849	6,150
Less accumulated depreciation	3,718	3,270
Net property, plant and equipment	3,131	2,880
Total assets	$ 9,756	$ 9,135

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions, except per share amounts

December 31,	2017	2016
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable	$ 1,324	$ 1,135
Salaries and wages	166	174
U.S. and foreign income taxes	35	58
Current portion of asbestos-related liabilities	100	115
Other accrued liabilities	378	383
Other liabilities—discontinued operations	115	
Short-term loans	151	162
Long-term debt due within one year	11	33
Total current liabilities	2,280	2,060
Long-term debt	5,121	5,133
Deferred taxes	99	100
Pension benefits	471	552
Nonpension postretirement benefits	167	162
Other liabilities	209	188
Asbestos-related liabilities	482	577
Share owners' equity:		
Share owners' equity of the Company:		
Common stock, par value $.01 per share, 250,000,000 shares authorized, 185,727,663 and 185,354,796 shares issued (including treasury shares), respectively	2	2
Capital in excess of par value	3,099	3,080
Treasury stock, at cost, 22,648,606 and 23,017,367 shares, respectively	(551)	(560)
Retained earnings (accumulated deficit)	84	(96)
Accumulated other comprehensive loss	(1,826)	(2,172)
Total share owners' equity of the Company	808	254
Noncontrolling interests	119	109
Total share owners' equity	927	363
Total liabilities and share owners' equity	$ 9,756	$ 9,135

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owners' Equity of the Company						
	Common Stock	Capital in Excess of Par Value	Treasury Stock	Retained Earnings (accumulated deficit)	Accumulated Other Comprehensive Loss	Non-Controlling Interests	Total Share Owners' Equity
Balance on January 1, 2015	$ 2	$ 3,066	$ (480)	$ (440)	$ (1,494)	$ 117	$ 771
Issuance of common stock (0.2 million shares)		1					1
Reissuance of common stock (0.3 million shares)			7				7
Treasury shares purchased (4.1 million shares)			(100)				(100)
Stock compensation		15					15
Net earnings				135		23	158
Other comprehensive loss					(523)	(16)	(539)
Distributions to noncontrolling interests						(22)	(22)
Acquisitions of noncontrolling interests		(18)				6	(12)
Balance on December 31, 2015	2	3,064	(573)	(305)	(2,017)	108	279
Issuance of common stock (0.5 million shares)		5					5
Reissuance of common stock (0.5 million shares)			13				13
Stock compensation		11					11
Net earnings				209		21	230
Other comprehensive loss					(155)	(4)	(159)
Distributions to noncontrolling interests						(16)	(16)
Balance on December 31, 2016	2	3,080	(560)	(96)	(2,172)	109	363
Issuance of common stock (0.1 million shares)		1					1
Reissuance of common stock (0.4 million shares)			9				9
Stock compensation		18					18
Net earnings				180		22	202
Other comprehensive income					346	5	351
Distributions to noncontrolling interests						(17)	(17)
Balance on December 31, 2017	$ 2	$ 3,099	$ (551)	$ 84	$ (1,826)	$ 119	$ 927

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2017	2016	2015
Operating activities:			
Net earnings	$ 202	$ 230	$ 158
Loss from discontinued operations	3	7	4
Non-cash charges (credits):			
Depreciation	387	375	323
Amortization of intangibles and other deferred items	101	103	86
Amortization of finance fees and debt discount	13	13	15
Deferred tax provision (benefit)	(12)	(4)	12
Pension expense	29	31	31
Restructuring, asset impairment and related charges	72	98	63
Pension settlement charges	218	98	
Impairment of equity investment		25	
Gain on China land sale		(71)	
Asbestos-related costs			16
Acquisition-related fair value inventory adjustments			22
Acquisition-related fair value intangible adjustments			10
Pension contributions	(31)	(38)	(17)
Asbestos-related payments	(110)	(125)	(138)
Cash paid for restructuring activities	(62)	(24)	(38)
Change in components of working capital	(89)	90	88
Other	3	(50)	(23)
Cash provided by continuing operating activities	724	758	612
Cash utilized in discontinued operating activities	(3)	(7)	(4)
Total cash provided by operating activities	721	751	608
Investing activities:			
Cash payments for property, plant and equipment	(441)	(454)	(402)
Acquisitions, net of cash acquired	(39)	(56)	(2,351)
Net cash proceeds related to sale of assets and other	14	85	1
Net foreign exchange derivative activity		8	4
Cash utilized in continuing investing activities	(466)	(417)	(2,748)
Cash provided by discontinued investing activities	115		
Total cash utilized in investing activities	(351)	(417)	(2,748)
Financing activities:			
Additions to long-term debt	1,458	1,235	4,538
Repayments of long-term debt	(1,764)	(1,453)	(2,321)
Increase (decrease) in short-term loans	(36)	10	51
Payment of finance fees	(28)	(9)	(90)
Distributions paid to noncontrolling interests	(17)	(16)	(22)
Treasury shares purchased			(100)
Issuance of common stock and other	(5)	5	1
Cash provided by (utilized in) financing activities	(392)	(228)	2,057
Effect of exchange rate fluctuations on cash	22	(13)	(30)
Increase (decrease) in cash	—	93	(113)
Cash and cash equivalents at beginning of period	492	399	512
Cash and cash equivalents at end of period	$ 492	$ 492	$ 399

See accompanying Notes to the Consolidated Financial Statements.

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Illinois, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant ownership interest, generally 20% to 50%. Other investments are accounted for at cost. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in Europe, North America, Latin America and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition The Company recognizes sales, net of estimated discounts and allowances, when the title to the products and risk of loss are transferred to customers. Provisions for rebates to customers are provided in the same period that the related sales are recorded.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Stock-Based Compensation The Company has various stock-based compensation plans consisting of stock option grants and restricted share awards. Costs resulting from all share-based compensation plans are required to be recognized in the financial statements. A public entity is required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the required service period (usually the vesting period). No compensation cost is recognized for equity instruments for which employees do not render the required service.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in selling and administrative and other. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses currency swaps, interest rate swaps, forward exchange contracts, options and commodity forward contracts to manage risks generally associated with foreign exchange rate, interest rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. When appropriate, derivative instruments are designated as and are effective as hedges, in accordance with accounting principles generally accepted in the United States. If the underlying hedged transaction ceases to exist, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. Cash flows from forward exchange contracts not designated as hedges are classified as an investing activity and cash flows from commodity forward contracts are classified as operating activities. Cash flows of currency swaps and interest rate swap contracts are classified within the cash flow statement based on the nature of the underlying cash flows.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

The Company's derivative assets and liabilities consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to valuing these contracts. Natural gas forward

rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation.

New Accounting Standards

Revenue from Contracts with Customers—In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers", which delayed by one year the effective date of the new revenue recognition standard, and therefore will be effective for the Company on January 1, 2018. The Company is nearing the completion of its implementation process, which included a review of customer contracts, to evaluate the effect this standard will have on its consolidated financial statements and related disclosures. At this time, the Company does not expect that the implementation of this standard in 2018 will have a significant impact on the timing in which it recognizes revenue. The Company does not currently expect the adoption of the new standard to have a material impact on consolidated net income or the consolidated balance sheet. The standard requires new substantial disclosures and the Company continues to evaluate these requirements. The Company plans to select the modified retrospective transition method upon adoption effective January 1, 2018.

Leases—In February 2016, the FASB issued ASU No. 2016-02, "Leases". Under this guidance, lessees will be required to recognize on the balance sheet a lease liability and a right-of-use asset for all leases, with the exception of short-term leases. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and will be measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and will be measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. The standard also requires a lessee to recognize a single lease cost allocated over the lease term, generally on a straight-line basis. The new guidance is effective for the Company on January 1, 2019. ASU No. 2016-02 is required to be applied using the modified retrospective approach for all leases existing as of the effective date and provides for certain practical expedients. The Company anticipates the new guidance will significantly impact its consolidated financial statements as the Company has a significant number of leases. As further described in Note 16, Operating Leases, as of December 31, 2017, the Company had minimum lease commitments under non-cancellable operating leases totaling $258 million. The Company has begun the implementation of new software to manage its leases in accordance with this new accounting standard.

Stock Compensation—In March 2016, the FASB issued ASU No. 2016-09, "Improvements to Employee Share-Based Payment Accounting," which requires all excess tax benefits or deficiencies to be recognized as income tax expense or benefit in the income statement. In addition, excess tax benefits should be classified along with other income tax cash flows as an operating activity in the statement of cash flows. Application of the standard is required for the annual and interim periods beginning after December 15, 2016. The Company adopted this standard in the first quarter of 2017. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

Credit Losses—In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This guidance requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. This guidance also requires enhanced disclosures regarding

significant estimates and judgments used in estimating credit losses. The new guidance is effective for the Company on January 1, 2020. Early adoption is permitted for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Goodwill—In January 2017, the FASB issued ASU No. 2017-05, "Simplifying the Accounting for Goodwill Impairment" which removes Step 2 of the goodwill impairment test. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, but not exceeding the carrying amount of goodwill. Application of the standard will be applied prospectively and is effective for calendar year-end filers in 2020, with early adoption permitted for any impairment tests performed after January 1, 2017. The Company elected to early adopt this standard in the fourth quarter of 2017. The adoption of this standard did not have a material impact on the Company's consolidated financial statements.

Compensation—Retirement Benefits—In March 2017, the FASB issued ASU No. 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost" which requires the service cost component to be presented with other employee compensation costs in operating income within the income statement while the other components will be reported separately outside of operations. Application of the standard is required for annual periods beginning after December 15, 2017. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements, except for the reclassification in the Consolidated Results of Operations of prior period pension settlement charges from the Cost of goods sold and Selling and administrative expense accounts into the Other expenses, net account.

Derivatives and Hedging—In August 2017, the FASB issued ASU No. 2017-12, "Targeted Improvements to Accounting for Hedging Activities" which improves the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. Application of the standard is required for annual periods beginning after December 15, 2018. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements.

2. Segment Information

The Company has four reportable segments based on its geographic locations: Europe, North America, Latin America and Asia Pacific. These four segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

Beginning in the first quarter of 2017, equity earnings related to the Company's joint-venture with Constellation Brands in Mexico were recorded in the North America region. In prior years, equity earnings from this joint-venture were recorded in Retained corporate costs and other as it was mostly in construction mode.

Beginning in the first quarter of 2018, to better leverage its scale and presence across a larger geography and market, and to reduce administrative costs, the Company merged the North America and Latin America segments into one segment named the Americas. This change in segment reporting for the Americas is aligned with the Company's internal approach to managing, reporting, and evaluating performance of this region.

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company's management uses segment

operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows:

	2017	2016	2015
Net sales:			
Europe	$ 2,375	$ 2,300	$ 2,324
North America	2,160	2,220	2,039
Latin America	1,551	1,432	1,064
Asia Pacific	714	684	671
Reportable segment totals	6,800	6,636	6,098
Other	69	66	58
Net sales	$ 6,869	$ 6,702	$ 6,156

	2017	2016	2015
Segment operating profit:			
Europe	$ 263	$ 237	$ 209
North America	318	299	265
Latin America	296	269	183
Asia Pacific	65	77	83
Reportable segment totals	942	882	740
Items excluded from segment operating profit:			
Retained corporate costs and other	(104)	(98)	(70)
Pension settlement charges	(218)	(98)	
Restructuring, asset impairment and other charges	(77)	(129)	(80)
Charge for asbestos-related costs			(16)
Gain on China land sale		71	
Strategic transaction costs			(23)
Acquisition-related fair value inventory adjustments			(22)
Acquisition-related fair value intangible adjustments			(10)
Interest expense, net	(268)	(272)	(251)
Earnings from continuing operations before income taxes	$ 275	$ 356	$ 268

	Europe	North America	Latin America	Asia Pacific	Reportable Segment Totals	Retained Corp Costs and Other	Consolidated Totals
Total assets:							
2017	$ 3,133	$ 2,794	$ 2,617	$ 1,001	$ 9,545	$ 211	$ 9,756
2016	2,792	2,522	2,537	926	8,777	358	9,135
2015	2,902	2,500	2,807	917	9,126	295	9,421
Equity investments:							
2017	$ 95	$ 259	$ —	$ 114	$ 468	$ 57	$ 525
2016	78	21		117	216	217	433
2015	78	22		145	245	164	409
Equity earnings:							
2017	$ 18	$ 41	$ —	$ —	$ 59	$ 18	$ 77
2016	15	12		4	31	29	60
2015	16	19		7	42	18	60
Capital expenditures:							
2017	$ 152	$ 106	$ 127	$ 55	$ 440	$ 1	$ 441
2016	163	108	123	59	453	1	454
2015	164	97	89	50	400	2	402
Depreciation and amortization expense:							
2017	$ 125	$ 134	$ 176	$ 43	$ 478	$ 10	$ 488
2016	118	139	173	37	467	11	478
2015	120	128	107	40	395	14	409

The Company's net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2017	$ 757	$ 2,374	$ 3,131
2016	749	2,131	2,880
2015	736	2,225	2,961

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2017	$ 2,072	$ 4,797	$ 6,869
2016	2,124	4,578	6,702
2015	1,939	4,217	6,156

Intercompany sales in Latin America totaled $150 million, $179 million and $101 for the years ended December 31, 2017, 2016, and 2015, respectively.

For only the year ended December 31, 2015, operations outside the U.S. that accounted for more than 10% of consolidated net sales were in France.

3. Inventories

Major classes of inventory are as follows:

	2017	2016
Finished goods	$ 873	$ 827
Raw materials	122	118
Operating supplies	41	38
	$ 1,036	$ 983

4. Equity Investments

At December 31, 2017 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
BJC O-I Glass Pte. Ltd.	50 %	Glass container manufacturer
CO Vidrieria SARL ("COV")	50 %	Glass container manufacturer
Rocky Mountain Bottle Company	50 %	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25 %	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50 %	Glass container manufacturer
Vetri Speciali SpA	50 %	Specialty glass manufacturer

Summarized information pertaining to the Company's equity affiliates follows:

	2017	2016	2015
Equity in earnings:			
Non-U.S.	$ 45	$ 19	$ 23
U.S.	32	41	37
Total	$ 77	$ 60	$ 60
Dividends received	$ 48	$ 38	$ 53

Summarized combined financial information for equity affiliates is as follows (unaudited):

	2017	2016
At end of year:		
Current assets	$ 466	$ 425
Non-current assets	1,021	779
Total assets	1,487	1,204
Current liabilities	232	190
Other liabilities and deferred items	198	145
Total liabilities and deferred items	430	335
Net assets	$ 1,057	$ 869

For the year:	2017	2016	2015
Net sales	$ 883	$ 755	$ 719
Gross profit	$ 242	$ 182	$ 193
Net earnings	$ 165	$ 145	$ 139

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2017, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed.

The Company made purchases of approximately $180 million and $176 million from equity affiliates in 2017 and 2016, respectively, and owed approximately $90 million and $76 million to equity affiliates as of December 31, 2017 and 2016, respectively.

There is a difference of approximately $10 million as of December 31, 2017, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2017, 2016, and 2015 are as follows:

	Europe	North America	Latin America	Other	Total
Balance as of January 1, 2015	$ 926	$ 723	$ 239	$ 5	$ 1,893
Acquisition related adjustments		316	480		796
Translation effects	(86)	(19)	(95)		(200)
Balance as of December 31, 2015	840	1,020	624	5	2,489
Acquisition related adjustments		15	26		41
Translation effects	(32)	3	(39)		(68)
Balance as of December 31, 2016	808	1,038	611	5	2,462
Translation effects	105	8	15		128
Balance as of December 31, 2017	$ 913	$ 1,046	$ 626	$ 5	$ 2,590

The acquisition related adjustments in 2016 and 2015 primarily relate to the Vitro Acquisition (see Note 19).

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2017, 2016, and 2015.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) by comparing the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then any excess of the BEV of the goodwill over the carrying value will be recorded as an impairment loss. The calculations of the BEV are based on significant unobservable inputs, such as price trends, customer demand, material costs, discount rates and asset replacement costs, and are classified as Level 3 in the fair value hierarchy.

During the fourth quarter of 2017, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible assets

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Net intangible asset values were $439 million and $464 million for the years ended December 31, 2017 and 2016, respectively. Amortization expense for intangible assets was $41 million, $39 million and $21 million for the years ended December 31, 2017, 2016, and 2015, respectively. Estimated amortization related to intangible

assets through 2022 is as follows: 2018, $44 million; 2019, $42 million; 2020, $41 million; 2021, $39 million; and 2022, $36 million. No impairment existed on these assets at December 31, 2017.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

6. Other Assets

Other assets (noncurrent) consist of the following at December 31, 2017 and 2016:

	2017	2016
Deferred tax assets	$ 194	$ 185
Deferred returnable packaging costs	119	115
Repair part inventories	106	107
Capitalized software	82	85
Value added taxes	24	22
Other	77	88
	$ 602	$ 602

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $12 million, $13 million and $19 million for 2017, 2016, and 2015, respectively. Estimated amortization related to capitalized software through 2022 is as follows: 2018, $13 million; 2019, $14 million; 2020, $13 million; 2021, $12 million; and 2022, $11 million.

7. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards and foreign exchange option and forward contracts. The Company uses an income approach to value these contracts. Natural gas forward rates and foreign exchange rates are the significant inputs into the valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy. The Company also evaluates counterparty risk in determining fair values.

Commodity Forward Contracts Designated as Cash Flow Hedges

In several regions, the Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. In North America, the majority of its customer contracts contain provisions that pass the price of natural gas to its customers. In certain of these contracts, the customer has the option of fixing the natural gas price component for a specified period of time. To limit the effects of fluctuations in cash flows resulting from these customer contracts, the Company enters into commodity forward contracts related to forecasted natural gas requirements. In Asia Pacific, the Company implemented a hedging program in 2016, which included the execution of commodity forward contracts for certain contracted natural gas requirements. At December 31, 2017 and 2016, the Company had entered into commodity forward contracts covering approximately 8,800,000 MM BTUs and 12,300,000 MM BTUs, respectively.

The Company accounts for the above forward contracts as cash flow hedges at December 31, 2017 and recognizes them on the balance sheet at fair value. The effective portion of changes in the fair value of a derivative that is designated as, and meets the required criteria for, a cash flow hedge is recorded in the Accumulated Other Comprehensive Income component of share owners' equity ("OCI") and reclassified into earnings in the same period or periods during which the underlying hedged item affects earnings. An

unrecognized gain of $3 million at December 31, 2017 and an unrecognized gain of $6 million at December 31, 2016 related to the commodity forward contracts was included in Accumulated OCI, and will be reclassified into earnings in the period when the commodity forward contracts expire. Any material portion of the change in the fair value of a derivative designated as a cash flow hedge that is deemed to be ineffective is recognized in current earnings. The ineffectiveness related to these natural gas hedges for the year ended December 31, 2017 and 2016 was not material.

The effect of the commodity forward contracts on the results of operations for the years ended December 31, 2017, 2016, and 2015 is as follows:

Amount of gain (loss) Recognized in OCI on Commodity Forward Contracts (Effective Portion)			Amount of gain (loss) Reclassified from Accumulated OCI into Income (reported in cost of goods sold) (Effective Portion)		
2017	2016	2015	2017	2016	2015
$ 6	$ 7	$ (4)	$ —	$ —	$ (1)

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company may enter into short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company may also use foreign exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables, and loans, not denominated in, or indexed to, their functional currencies. The Company records these short-term foreign exchange agreements on the balance sheet at fair value and changes in the fair value are recognized in current earnings.

At December 31, 2017 and 2016, the Company had outstanding foreign exchange and option agreements denominated in various currencies covering the equivalent of approximately $460 million and $490 million, respectively, related primarily to intercompany transactions and loans.

The effect of the foreign exchange derivative contracts on the results of operations for the years ended December 31, 2017, 2016, and 2015 is as follows:

Location of Gain (Loss) Recognized in Income on Foreign Exchange Contracts	Amount of Gain (Loss) Recognized in Income on Foreign Exchange Contracts		
	2017	2016	2015
Other expense, net	$ 10	$ 6	$ 10

Hedges of Multiple Risks

The Company has variable-interest rate borrowings denominated in currencies other than the functional currency of the borrowing subsidiaries. As a result, the Company is exposed to fluctuations in both the underlying variable interest rate and the currency of the borrowing against the subsidiaries' functional currency. The Company uses derivatives to manage these exposures and designates these derivatives as cash flow hedges of both interest rate and foreign exchange risks. The effective portion of changes in the fair value of derivatives designated and that qualify as cash flow hedges of both interest rate risk and foreign exchange risk is recorded in Accumulated OCI and is subsequently reclassified into earnings in the period for which the hedged forecasted transaction affects earnings. If there is an ineffective portion of the change in fair value of the derivative it is recognized directly in earnings.

During the second quarter of 2017, one of the Company's Euro-functional subsidiaries entered into a cross-currency interest rate swap to manage its exposure to fluctuations in the variable interest rate and the U.S. dollar-Euro exchange rate arising from a U.S. dollar denominated borrowing. This swap involves exchanging fixed rate Euro interest payments for floating rate U.S. dollar interest receipts both of which will occur at the forward exchange rates in effect upon entering into the instrument. This instrument, which settled in the third quarter of 2017, had a pay fixed notional amount of €81 million and a receive floating notional amount of $90 million. There was no ineffectiveness related to these cross-currency interest rate swaps for the year ended December 31, 2017.

During the fourth quarter of 2017, one of the Company's Euro-functional subsidiaries entered into a series of cross-currency interest rate swaps to manage its exposure to fluctuations in the Euro-U.S dollar exchange rate arising from a U.S. dollar denominated borrowing. These swaps involve exchanging fixed rate Euro interest payments for fixed rate U.S. dollar interest receipts both of which will occur at the forward exchange rates in effect upon entering into the instrument. An unrecognized loss of less than $1 million at December 31, 2017 related to these cross-currency interest rate swaps was included in Accumulated OCI, and will be reclassified into earnings within the next twelve months. These instruments, in the aggregate, have a pay fixed notional amount of €263 million and a receive notional amount of $310 million and reach final maturity in 2023. There was no ineffectiveness related to these cross-currency interest rate swaps for the year ended December 31, 2017.

Interest Rate Swaps Designated as Fair Value Hedges

During the third and fourth quarters of 2017, the Company entered into a series of interest rate swap agreements with a total notional amount of €725 million that reach final maturity in 2024. The swaps were executed in order to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt and to reduce net interest payments and expense in the near-term.

The Company's fixed-to-variable interest rate swaps were accounted for as fair value hedges. The relevant terms of the swap agreements match the corresponding terms of the notes and therefore there is no hedge ineffectiveness. The Company recorded the net of the fair market values of the swaps as a long-term liability and short-term asset along with a corresponding net decrease in the carrying value of the hedged debt.

Under the swaps, the Company receives fixed rate interest amounts (equal to the interest on the corresponding hedged note) and pays interest at a six-month Euribor rate (set in arrears) plus a margin spread (see table below). The interest rate differential on each swap is recognized as an adjustment of interest expense during each six-month period over the term of the agreement.

The valuation of these instruments is determined using widely accepted valuation techniques, including discounted cash flow analysis on the expected cash flows of each derivative. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. The fair values of interest rate swaps are determined using the market standard methodology of netting the discounted future fixed cash receipts (or payments) and the discounted expected variable cash payments (or receipts). The variable cash payments (or receipts) are based on an expectation of future interest rates (forward curves) derived from observable market interest rate curves. The Company has determined that the majority of the inputs used to value these derivatives fall within Level 2 of the fair value hierarchy.

The following selected information relates to fair value swaps at December 31, 2017:

	Amount Hedged	Receive Rate	Average Spread
Senior Notes due 2024	€ 725	3.125 %	2.6 %

Balance Sheet Classification

The Company records the fair values of derivative financial instruments on the balance sheet as follows: (a) receivables if the instrument has a positive fair value and maturity within one year, (b) deposits, receivables, and other assets if the instrument has a positive fair value and maturity after one year, (c) other accrued liabilities or other liabilities (current) if the instrument has a negative fair value and maturity within one year, and (d) other accrued liabilities or other liabilities if the instrument has a negative fair value and maturity after one year.

The following table shows the amount and classification (as noted above) of the Company's derivatives as of December 31, 2017 and 2016:

		Fair Value	
	Balance Sheet Location	2017	2016
Asset Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	b	$ 3	$ 6
Interest rate swaps designated as fair value hedges	a	6	
Hedges of multiple risks designated as cash flow hedges	a	4	
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	a	$ 4	$ 9
Total asset derivatives		$ 17	$ 15
Liability Derivatives:			
Derivatives designated as hedging instruments:			
Commodity futures contracts	c	$ —	$ —
Interest rate swaps designated as fair value hedges	d	13	
Hedges of multiple risks designated as cash flow hedges	d	10	
Derivatives not designated as hedging instruments:			
Foreign exchange derivative contracts	d	1	5
Total liability derivatives		$ 24	$ 5

8. Restructuring Accruals, Asset Impairments and Other Costs Related to Closed Facilities

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

When a decision is made to take these actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs is presented separately while minor initiatives are presented on a combined basis. As of December 31, 2017 and 2016, no major restructuring programs were in effect.

In 2017, the Company implemented a number of minor restructuring initiatives and recorded restructuring, asset impairment and other charges of $72 million. These charges primarily consisted of employee costs, write-down of assets, and other exit costs in the following regions: Latin America ($45 million), Europe ($19 million), North America ($4 million) and Asia Pacific ($4 million). The restructuring charges recorded in 2017 were discrete actions and are expected to approximate the total cumulative cost for those actions as no significant additional costs are expected to be incurred. As part of the total restructuring charges recorded in Europe in 2016 and 2017, the Company has recorded total cumulative charges of $56 million related to a plant closure in this region and does not expect to execute any further significant actions related to this facility. The restructuring charges recorded in 2017 in the Latin American and European regions primarily relate to capacity curtailments and products produced at those facilities have, in large part, been reallocated to others in their respective regions. The Company expects that the majority of the remaining cash expenditures related to the above charges will be paid out by the end of 2019.

In 2016, the Company implemented a number of minor restructuring initiatives and the Company recorded restructuring, asset impairment and other charges of $98 million. These charges primarily consisted of employee costs, write-down of assets, and other exit costs in the following regions: Latin America ($18 million), Europe ($48 million), North America ($4 million), Asia Pacific ($4 million) and other corporate restructuring actions ($24 million). Except for the charges recorded in Europe, the other discrete restructuring charges recorded in 2016 are expected to approximate the total cumulative costs for those actions as no significant additional costs are expected to be incurred. The Company has recorded total cumulative charges of $47 million related to a plant closure in Europe. These restructuring charges primarily relate to several capacity curtailments and the Company reallocated the products produced at these facility to others in the region.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2016 through December 31, 2017:

	Total Restructuring
Balance at January 1, 2016	$ 43
Charges	98
Write-down of assets to net realizable value	(28)
Net cash paid, principally severance and related benefits	(24)
Other, including foreign exchange translation	(4)
Balance at December 31, 2016	85
Charges	72
Write-down of assets to net realizable value	(11)
Net cash paid, principally severance and related benefits	(62)
Other, including foreign exchange translation	1
Balance at December 31, 2017	$ 85

The restructuring accrual balance represents the Company's estimates of the remaining future cash amounts to be paid related to the actions noted above. As of December 31, 2017, the Company's estimates include approximately $65 million for employee benefits costs, $19 million for environmental remediation costs, and $1 million for other exit costs.

9. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company has defined benefit pension plans covering a substantial number of employees located in the United States and several other non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the pension benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Obligations at beginning of year	$ 1,956	$ 2,190	$ 1,235	$ 1,210
Change in benefit obligations:				
Service cost	14	15	15	16
Interest cost	78	90	40	44
Actuarial (gain) loss, including the effect of change in discount rates	123	36	(15)	160
Curtailment, settlement, and plan amendment	(393)	(200)	(171)	
Participant contributions			1	2
Benefit payments	(128)	(175)	(60)	(71)
Other				3
Foreign currency translation			103	(129)
Net change in benefit obligations	(306)	(234)	(87)	25
Obligations at end of year	$ 1,650	$ 1,956	$ 1,148	$ 1,235

The changes in the fair value of the pension plans' assets for the year are as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Fair value at beginning of year	$ 1,654	$ 1,909	$ 1,011	$ 1,012
Change in fair value:				
Actual gain (loss) on plan assets	254	118	87	139
Benefit payments	(128)	(175)	(60)	(71)
Employer contributions	7	2	24	38
Participant contributions			1	2
Settlements	(393)	(200)	(171)	
Foreign currency translation			83	(111)
Other				2
Net change in fair value of assets	(260)	(255)	(36)	(1)
Fair value at end of year	$ 1,394	$ 1,654	$ 975	$ 1,011

The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

The funded status of the pension plans at year end is as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Plan assets at fair value	$ 1,394	$ 1,654	$ 975	$ 1,011
Projected benefit obligations	1,650	1,956	1,148	1,235
Plan assets less than projected benefit obligations	(256)	(302)	(173)	(224)
Items not yet recognized in pension expense:				
Actuarial loss	811	1,046	284	352
Prior service cost (credit)	1	1	(2)	(1)
	812	1,047	282	351
Net amount recognized	$ 556	$ 745	$ 109	$ 127

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2017 and 2016 as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Pension assets	$ —	$ —	$ 49	$ 40
Current pension liability, included with other accrued liabilities	(2)	(7)	(5)	(7)
Pension benefits	(254)	(295)	(217)	(257)
Accumulated other comprehensive loss	812	1,047	282	351
Net amount recognized	$ 556	$ 745	$ 109	$ 127

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2017 and 2016 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Current year actuarial (gain) loss	$ (2)	$ 66	$ (40)	$ 87
Amortization of actuarial loss	(57)	(67)	(16)	(12)
Settlement	(176)	(98)	(42)	
	(235)	(99)	(98)	75
Translation			30	(43)
Change in accumulated other comprehensive income	$ (235)	$ (99)	$ (68)	$ 32

The accumulated benefit obligation for all defined benefit pension plans was $2,735 million and $3,126 million at December 31, 2017 and 2016, respectively.

The components of the net pension expense for the year are as follows:

	U.S.			Non-U.S.		
	2017	2016	2015	2017	2016	2015
Service cost	$ 14	$ 15	$ 24	$ 15	$ 16	$ 15
Interest cost	78	90	96	40	44	44
Expected asset return	(128)	(149)	(170)	(63)	(65)	(67)
Amortization:						
Actuarial loss	57	67	74	16	13	15
Net expense	$ 21	$ 23	$ 24	$ 8	$ 8	$ 7

Effective January 1, 2016 the Company amended its salary pension plan in North America to freeze future pension benefits. This action required an obligation remeasurement for the curtailment of benefits, which resulted in a reduction of the Company's pension expense.

In 2017, the Company settled a portion of its pension obligations in the U.S., Canada and the United Kingdom, resulting in settlement charges of $176 million, $27 million and $15 million, respectively. Retiree annuity contract purchase transactions in the U.S. and Canada amounting to approximately $369 million and $123 million, respectively, with several insurers, gave rise to the majority of the settlement transactions, with lump-sum payments directly to plan participants comprising the remainder. In 2016, the Company settled a portion of its U.S. pension obligation via a retiree annuity contract purchase of approximately $200 million, which resulted in a settlement charge of $98 million.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2018:

	U.S.	Non-U.S.
Actuarial loss	$ 52	$ 13

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds the Fair Value of Plan Assets				Accumulated Benefit Obligation Exceeds the Fair Value of Plan Assets			
	U.S.		Non-U.S.		U.S.		Non-U.S.	
	2017	2016	2017	2016	2017	2016	2017	2016
Projected benefit obligations	$ 1,650	$ 1,956	$ 905	$ 897	$ 1,650	$ 1,956	$ 261	$ 897
Accumulated benefit obligation	1,650	1,956	878	867	1,650	1,956	241	867
Fair value of plan assets	1,394	1,654	682	632	1,394	1,654	39	632

The weighted average assumptions used to determine benefit obligations are as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Discount rate	3.69 %	4.17 %	2.76 %	2.94 %
Rate of compensation increase	N/A	N/A	2.78 %	2.90 %

The weighted average assumptions used to determine net periodic pension costs are as follows:

	U.S.			Non-U.S.		
	2017	2016	2015	2017	2016	2015
Discount rate	4.17 %	4.43 %	4.05 %	2.94 %	3.68 %	3.65 %
Rate of compensation increase	N/A	N/A	2.96 %	2.90 %	2.84 %	2.89 %
Expected long-term rate of return on assets	7.50 %	7.50 %	8.00 %	6.32 %	7.15 %	7.21 %

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2017, the Company's weighted average expected long-term rate of return on assets was 7.50% for the U.S. plans and 6.32% for the non-U.S. plans. In developing this assumption, the Company considered its historical 10-year average return (through December 31, 2016) and evaluated input from its third party pension plan asset consultants, including their review of asset class return expectations.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. The assets for the U.S. plans are maintained in

a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The assets of the group trust and the Company's non-U.S. plans are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to the target asset allocation ranges. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. All investments are valued at their respective net asset values. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The Company's U.S. pension plan assets held in the group trust are measured at net asset value in the fair value hierarchy. The total U.S. plan assets amounted to $1,394 million and $1,654 million as of December 31, 2017 and 2016, respectively. In 2017, the U.S. plan assets consisted of approximately 65% equity securities, 28% debt securities, and 7% real estate and other.

In 2017, the non-U.S. plan assets consisted of approximately 22% equity securities, 54% debt securities, and 24% real estate and other. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2017 and 2016:

	2017				2016			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 9	$ —	$ —	$ 9	$ 24	$ —	$ —	$ 24
Equity securities				—				—
Debt securities	33			33	37	2		39
Real estate				—			4	4
Other		27		27		37	6	43
Total	$ 42	$ 27	$ —		$ 61	$ 39	$ 10	
Investments measured at net asset value				$ 906				$ 901
Total non-U.S. assets at fair value				$ 975				$ 1,011

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2017	2016
Beginning balance	$ 10	$ 11
Net increase (decrease)	(10)	(1)
Ending balance	$ —	$ 10

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2017.

In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $35 million in 2018.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2018	$ 111	$ 51
2019	112	47
2020	112	51
2021	109	53
2022	109	55
2023–2027	517	289

The Company also sponsors several defined contribution plans for all salaried and hourly U.S. employees, and employees in Canada, the U.K., The Netherlands and Australia. Participants' contributions are based on their compensation. The Company matches contributions of participants, up to various limits, in substantially all plans. Company contributions to these plans amounted to $33 million in 2017, $34 million in 2016, and $29 million in 2015.

Postretirement Benefits Other Than Pensions

The Company provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees, and substantially all employees in Canada. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement and completion of a specified number of years of creditable service. The Company uses a December 31 measurement date to measure its postretirement benefit obligations.

The changes in the postretirement benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Obligations at beginning of year	$ 92	$ 97	$ 81	$ 68
Change in benefit obligations:				
Service cost			1	1
Interest cost	4	4	3	3
Actuarial (gain) loss, including the effect of changing discount rates		(1)	1	9
Benefit payments	(7)	(9)	(2)	(2)
Foreign currency translation			5	2
Other		1		
Net change in benefit obligations	(3)	(5)	8	13
Obligations at end of year	$ 89	$ 92	$ 89	$ 81

The funded status of the postretirement benefit plans at year end is as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Postretirement benefit obligations	$ (89)	$ (92)	$ (89)	$ (81)
Items not yet recognized in net postretirement benefit cost:				
Actuarial gain (loss)	(19)	(21)	(7)	(6)
Prior service credit	22	30		
	3	9	(7)	(6)
Net amount recognized	$ (86)	$ (83)	$ (96)	$ (87)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2017 and 2016 as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (8)	$ (8)	$ (3)	$ (3)
Nonpension postretirement benefits	(81)	(84)	(86)	(78)
Accumulated other comprehensive income (loss)	3	9	(7)	(6)
Net amount recognized	$ (86)	$ (83)	$ (96)	$ (87)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2017 and 2016 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Current year actuarial (gain) loss	$ —	$ (1)	$ 1	$ 9
Amortization of actuarial loss	(2)	(2)		
Amortization of prior service credit	8	8		
	$ 6	$ 5	$ 1	$ 9

The components of the net postretirement benefit cost for the year are as follows:

	U.S.			Non-U.S.		
	2017	2016	2015	2017	2016	2015
Service cost	$ —	$ —	$ —	$ 1	$ 1	$ 1
Interest cost	4	4	4	3	3	3
Amortization:						
Actuarial loss	2	2	2			
Prior service credit	(8)	(8)	(8)			
Net amortization	(6)	(6)	(6)	—	—	—
Net postretirement benefit (income) cost	$ (2)	$ (2)	$ (2)	$ 4	$ 4	$ 4

Amounts that are expected to be amortized from accumulated other comprehensive income into net postretirement benefit cost during 2018:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ 1	$ —
Prior service credit	(8)	
Net amortization	$ (7)	$ —

Amortization included in net postretirement benefit cost is based on the average remaining service of employees. The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	U.S.			Non-U.S.		
	2017	2016	2015	2017	2016	2015
Accumulated postretirement benefit obligation	3.61 %	4.11 %	4.35 %	3.35 %	3.55 %	3.80 %
Net postretirement benefit cost	4.11 %	4.35 %	3.99 %	3.55 %	3.80 %	3.75 %

The weighted average assumed health care cost trend rates at December 31 are as follows:

	U.S.		Non-U.S.	
	2017	2016	2017	2016
Health care cost trend rate assumed for next year	6.20 %	6.40 %	5.00 %	5.00 %
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00 %	5.00 %	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2024	2024	N/A	N/A

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	U.S.		Non-U.S.	
	1-Percentage-Point Increase	1-Percentage-Point Decrease	1-Percentage-Point Increase	1-Percentage-Point Decrease
Effect on total of service and interest cost	$ —	$ —	$ —	$ 1
Effect on accumulated postretirement benefit obligations	(4)	4	(6)	8

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2018	$ 8	$ 3
2019	7	3
2020	7	3
2021	7	4
2022	6	4
2023–2027	28	20

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in 2017, $6 million in 2016 and $6 million in 2015. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

10. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2017	2016	2015
U.S.	$ (43)	$ (27)	$ —
Non-U.S.	318	383	268
	$ 275	$ 356	$ 268

Discontinued operations	2017	2016	2015
U.S.	$ —	$ —	$ —
Non-U.S.	(3)	(7)	(4)
	$ (3)	$ (7)	$ (4)

The provision (benefit) for income taxes consists of the following:

	2017	2016	2015
Current:			
U.S.	$ (5)	$ —	$ 9
Non-U.S.	87	123	85
	82	123	94
Deferred:			
U.S.	6	3	10
Non-U.S.	(18)	(7)	2
	(12)	(4)	12
Total:			
U.S.	1	3	19
Non-U.S.	69	116	87
Total for continuing operations	70	119	106
Total for discontinued operations	—	—	—
	$ 70	$ 119	$ 106

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 35% to the provision for income taxes is as follows:

	2017	2016	2015
Tax provision on pretax earnings from continuing operations at statutory U.S. Federal tax rate	$ 96	$ 124	$ 94
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates	(29)	(22)	(12)
U.S. Tax Cut and Jobs Act: transition tax, net of foreign tax credits	2		
Tax law changes	152	(3)	(3)
Change in valuation allowance: U.S. tax law change	(162)		
Change in valuation allowance: other	(283)	3	1
Tax attribute expiration	330		
Withholding tax, net	8	7	10
Non-deductible acquisition costs			6
Non-deductible expenses	9	20	7
U.S. tax on intercompany dividends and interest	2	3	16
Tax exempt income	(3)	(2)	(3)
Intraperiod tax allocation		(8)	
Tax credit	(37)	(19)	(14)
Changes in tax reserves	(18)	8	5
Mexico inflationary adjustments	13	6	3
Equity earnings	(13)	(9)	(7)
Intercompany financing	(4)	(5)	1
Other taxes based on income	10	11	3
Other items	(3)	5	(1)
Provision for income taxes	$ 70	$ 119	$ 106

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2017 and 2016 are as follows:

	2017	2016
Deferred tax assets:		
Accrued postretirement benefits	$ 44	$ 53
Asbestos-related liabilities	122	242
Foreign tax credit carryovers	124	413
Operating and capital loss carryovers	342	389
Other credit carryovers	17	34
Accrued liabilities	69	95
Pension liabilities	77	138
Other	43	74
Total deferred tax assets	838	1,438
Deferred tax liabilities:		
Property, plant and equipment	101	131
Intangibles and deferred software	97	119
Other	2	9
Total deferred tax liabilities	200	259
Valuation allowance	(543)	(1,094)
Net deferred taxes	$ 95	$ 85

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2017 and 2016 as follows:

	2017	2016
Other assets	$ 194	$ 185
Deferred taxes	(99)	(100)
Net deferred taxes	$ 95	$ 85

The deferred tax benefit associated with the reduction in the valuation allowance of $551 million was primarily allocated $445 million to income from continuing operations due to the primacy of continuing operations, the change in tax law and expiration of certain tax attribute carryovers, and $79 million to other comprehensive income.

Deferred tax assets and liabilities are determined separately for each tax jurisdiction on a separate or on a consolidated tax filing basis, as applicable, in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income of the appropriate character within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- taxable income in prior carryback years;
- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards; and
- prudent and feasible tax planning strategies that the Company would be willing to undertake to prevent a deferred tax asset from otherwise expiring.

The assessment regarding whether a valuation allowance is required or whether a change in judgment regarding the valuation allowance has occurred also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of cumulative losses in recent years;
- duration of statutory carryforward and carryback periods;
- statutory limitations against utilization of tax attribute carryforwards against taxable income;
- historical experience with tax attributes expiring unused; and
- near- and medium-term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is generally difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last two years and current year results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain tax jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

Based on the evidence available including a lack of sustainable earnings, the Company in its judgment previously recorded a valuation allowance against substantially all of its net deferred tax assets in the United States. If a change in judgment regarding this valuation allowance were to occur in the future, the Company will record a potentially material deferred tax benefit, which could result in a favorable impact on the effective tax rate in that period.

The U.S. Tax Cuts and Jobs Act ("Act") was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. *Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cut and Jobs Act*, allows filers to use prior year methodologies or estimates of the anticipated current impact of the Act in the preparation of their 2017 financial statements. At December 31, 2017, the Company had not completed its accounting for the tax effects of enactment of the Act; however, in certain cases, as described below, it has made a reasonable estimate of the effects on its existing deferred tax balances and the one-time transition tax. In all cases, the Company will continue to make and refine its calculations as additional data is gathered and further analysis is completed. In addition, the Company's estimates may also be affected as it gains a more thorough understanding of the tax law and certain aspects of the Act are clarified by the taxing authorities. Any adjustments to these provisional amounts will be reported as a component of tax expense (benefit) in the reporting period in which any such adjustments are determined, which will be no later than the fourth quarter of 2018.

The Company remeasured certain U.S. deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21%. However, the Company is still analyzing certain aspects of the Act and refining its calculations, which could potentially affect the measurement of these balances or potentially give rise to new deferred tax amounts. The provisional amount recorded related to the remeasurement of net deferred tax assets was a net tax charge of $162 million, which was fully offset by an adjustment to valuation allowance. Additionally, the Company recorded a deferred tax benefit of $11 million for the reduction of a deferred tax liability related to an indefinite lived intangible asset. The Act did not change the Company's judgment regarding the realizability of these net deferred tax assets.

The one-time transition tax is based on the Company's total post-1986 earnings and profits ("E&P") that were previously deferred from U.S. income taxes and for which no deferred taxes were recorded since the Company previously claimed the indefinite reinvestment assertion exception on these earnings. At the date of enactment, the Company's equity in the undistributed earnings of foreign subsidiaries for which income taxes had not been provided approximated $2.3 billion on a U.S. taxable E&P basis. The Act had the effect of subjecting approximately $1.8 billion of these undistributed earnings to the one-time transition tax. This tax, amounting to a provisional amount of $331 million, is expected to be substantially offset by available foreign tax credits resulting in a provisional net tax expense of $2 million primarily attributable to state taxes. The Company has not yet completed its calculation of the total post-1986 E&P and associated foreign tax credits for these foreign subsidiaries. Further, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. This amount may change when the Company finalizes the calculation of post-1986 foreign E&P previously deferred from U.S. federal taxation and finalizes the amounts held in cash or other specified assets. The Company anticipates that additional guidance and clarification regarding the implementation of the transition tax will be issued by federal and state taxing authorities and this estimate is, therefore, subject to future refinement.

The Company has elected to treat Global Intangible Low Taxed Income (GILTI) which is effective in 2018 for the Company as a period cost.

At December 31, 2017, before valuation allowance, the Company had unused foreign tax credits of $124 million expiring in 2020 through 2027 and research tax credits of $16 million expiring from 2019 to 2036. Approximately $160 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $182 million expiring between 2018 and 2037.

The Company maintains its assertion on a provisional basis that it intends to continue to indefinitely reinvest the gross book-tax basis differences in its non-US consolidated subsidiaries. However, the Company records deferred foreign taxes on gross book-tax basis differences to the extent of foreign distributable reserves for certain foreign subsidiaries. Determining the amount of unrecognized deferred tax liability related to any remaining undistributed foreign earnings not subject to the transition tax and additional outside basis difference in these entities (i.e., basis difference in excess of that subject to the one-time transition tax) is not practicable.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense.

The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2017, 2016, and 2015:

	2017	2016	2015
Balance at January 1	$ 74	$ 74	$ 77
Additions and reductions for tax positions of prior years	1		1
Additions based on tax positions related to the current year	17	15	10
Reductions due to the lapse of the applicable statute of limitations	(7)	(3)	(5)
Reductions due to settlements	(9)	(12)	(1)
Foreign currency translation	3		(8)
Balance at December 31	$ 79	$ 74	$ 74
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 72	$ 66	$ 67
Accrued interest and penalties at December 31	$ 8	$ 23	$ 25
Interest and penalties included in tax expense for the years ended December 31	$ (14)	$ (2)	$ (1)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably possible that the estimated liability could decrease up to $7 million within the next 12 months. This is primarily the result of anticipated audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under income tax examination in various tax jurisdictions in which it operates, including Bolivia, Brazil, Canada, China, Colombia, France, Germany, and Indonesia. The years under examination range from 2004 through 2015. The Company has received tax assessments in excess of established reserves. The Company is contesting these tax assessments, and will continue to do so, including pursuing all available remedies such as appeals and litigation, if necessary.

The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. During 2017, the Company concluded income tax audits in several jurisdictions, including Canada, Ecuador, France, and Italy.

11. Debt

The following table summarizes the long-term debt of the Company at December 31, 2017 and 2016:

	2017	2016
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	1,148	1,395
Term Loan A (€279 million at December 31, 2016)		282
Senior Notes:		
6.75%, due 2020 (€500 million)	594	523
4.875%, due 2021 (€330 million)	392	345
5.00%, due 2022	496	495
4.00%, due 2023	305	
5.875%, due 2023	685	682
3.125%, due 2024 (€725 million at December 31, 2017 and €500 million at December 31, 2016)	849	520
5.375%, due 2025	297	297
6.375%, due 2025	295	294
Senior Debentures:		
7.80%, due 2018		250
Capital leases	54	57
Other	17	26
Total long-term debt	5,132	5,166
Less amounts due within one year	11	33
Long-term debt	$ 5,121	$ 5,133

On April 22, 2015, the Company entered into a Senior Secured Credit Facility, which subsequently has been amended several times with the most recent amendment being entered into on September 28, 2017 (the "Amended Agreement").

At December 31, 2017, the Amended Agreement includes a $300 million revolving credit facility, a $600 million multicurrency revolving credit facility, and a $1,575 million term loan A facility ($1,148 million net of debt issuance costs), each of which has a final maturity date of April 22, 2020. At December 31, 2017, the Company had unused credit of $888 million available under the Amended Agreement. The weighted average interest rate on borrowings outstanding under the Amended Agreement at December 31, 2017 was 3.17%.

The Amended Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Amended Agreement also contains one financial covenant, a Total Leverage Ratio, that requires the Company not to exceed a ratio calculated by dividing consolidated total debt, less cash and cash equivalents ("Net Indebtedness"), by consolidated EBITDA, as defined in the Amended Agreement. The Total Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Total Leverage Ratio to exceed the specified maximum of 4.0x for the fiscal quarter ending December 31, 2017 and each fiscal quarter thereafter.

On September 28, 2017, the Company entered into Amendment No. 5 ("Amendment No. 5") to the Amended Agreement. Amendment No. 5 changes the calculation of the Total Leverage Ratio by excluding from the calculation of Net Indebtedness ordinary course revolver borrowings (except to the extent such borrowings existed at the prior year end) and non-recourse factoring or securitization debt.

Failure to comply with these covenants and restrictions could result in an event of default under the Amended Agreement. In such an event, the Company would be unable to request borrowings under the revolving facility, and all amounts outstanding under the Amended Agreement, together with accrued interest, could then be declared immediately due and payable. If an event of default occurs under the Amended Agreement and the lenders cause all of the outstanding debt obligations under the Amended Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2017, the Company was in compliance with all covenants and restrictions in the Amended Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Amended Agreement will not be adversely affected by the covenants and restrictions.

The interest rates on borrowings under the Amended Agreement are, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Amended Agreement, plus an applicable margin. The applicable margin for the term loan A facility and the revolving credit facility is linked to the Company's Total Leverage Ratio and ranges from 1.25% to 1.75% for Eurocurrency Rate loans and from 0.25% to 0.75% for Base Rate loans. In addition, a facility fee is payable on the revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Total Leverage Ratio.

Borrowings under the Amended Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Borrowings are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign borrowings, of stock of certain foreign subsidiaries. All borrowings under the Amended Agreement are guaranteed by certain domestic subsidiaries of the Company.

During November 2016, the Company issued senior notes with a face value of €500 million that bear interest at 3.125% and are due November 15, 2024 (the "Senior Notes due 2024"). The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $520 million and were used to repay the term loan B facility under the Amended Agreement. In March 2017, the Company expanded its borrowings under the Senior Notes due 2024 by issuing €225 million of additional notes that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $237 million and were used to repay a portion of the Company's revolving credit facility.

During March 2017, the Company purchased in a tender offer approximately $228 million aggregate principal amount of its 7.80% Senior Debentures due in 2018. In November 2017, the remaining $22 million of the 7.80% Senior Debentures were repurchased by the Company, the indenture relating thereto was discharged, and all collateral and guarantees thereunder were released. The Company recorded $18 million of additional interest charges for note repurchase premiums and the write-off of unamortized finance fees related to these actions.

During December 2017, the Company issued senior notes with a face value of $310 million that bear interest at 4.00% and are due March 15, 2023. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $305 million and were used to repay a portion of the term loan A facility under the Amended Agreement.

In order to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt, the Company has entered into a series of interest rate swap agreements. These swap agreements were accounted for as fair value hedges (see Note 7).

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The Company has a €185 million European accounts receivable securitization program, which extends through March 2019, subject to periodic renewal of backup credit lines.

Information related to the Company's accounts receivable securitization program as of December 31, 2017 and 2016 is as follows:

	2017	2016
Balance (included in short-term loans)	$ 133	$ 152
Weighted average interest rate	0.76 %	0.74 %

The carrying amounts reported for the accounts receivable securitization program, and certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Annual maturities for all of the Company's long-term debt through 2022 are as follows: 2018, $11 million; 2019, $11 million; 2020, $1,753 million; 2021, $401 million; 2022, $503 million; and 2023 and thereafter $2,453 million.

Fair values at December 31, 2017, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 597	$ 116.99	$ 699
4.875%, due 2021 (€330 million)	394	113.43	447
5.00%, due 2022	500	104.24	521
5.875%, due 2023	700	108.15	757
4.00%, due 2023	310	100.21	311
3.125%, due 2024 (€725 million)	866	105.34	912
6.375%, due 2025	300	112.62	338
5.375%, due 2025	300	105.31	316

12. Contingencies

Asbestos

The Company is a defendant in numerous lawsuits alleging bodily injury and death as a result of exposure to asbestos. From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company sold its insulation business unit at the end of April 1958. The typical asbestos personal injury lawsuit alleges various theories of liability, including negligence, gross negligence and strict liability and seeks compensatory and, in some cases, punitive damages in various amounts (herein referred to as "asbestos claims").

The following table shows the approximate number of plaintiffs and claimants who had asbestos claims pending against the Company at the beginning of each listed year, the number of claims disposed of during that year, the year's filings and the claims pending at the end of each listed year (eliminating duplicate filings):

	2017	2016	2015
Pending at beginning of year	1,400	2,080	2,260
Disposed	1,320	1,750	1,460
Filed	1,250	1,070	1,280
Pending at end of year	1,330	1,400	2,080

Based on an analysis of the lawsuits pending as of December 31, 2017, approximately 89% of plaintiffs either do not specify the monetary damages sought, or in the case of court filings, claim an amount sufficient to invoke the jurisdictional minimum of the trial court. Approximately 8% of plaintiffs specifically plead damages above the jurisdictional minimum up to, and including, $15 million or less, and 3% of plaintiffs specifically plead damages greater than $15 million but less than or equal to $100 million.

As indicated by the foregoing summary, current pleading practice permits considerable variation in the assertion of monetary damages. The Company's experience resolving hundreds of thousands of asbestos claims and lawsuits over an extended period demonstrates that the monetary relief alleged in a complaint bears little relevance to a claim's merits or disposition value. Rather, the amount potentially recoverable is determined by such factors as the type and severity of the plaintiff's asbestos disease, the plaintiff's medical history and exposure to other disease-causing agents, the product identification evidence against the Company and other co-defendants, the defenses available to the Company and other co-defendants, the specific jurisdiction in which the claim is made, and the plaintiff's firm representing the claimant.

In addition to the pending claims set forth above, the Company has claims-handling agreements in place with many plaintiffs' counsel throughout the country. These agreements require evaluation and negotiation regarding whether particular claimants qualify under the criteria established by such agreements. The criteria for such claims include verification of a compensable illness and a reasonable probability of exposure to a product manufactured by the Company's former business unit during its manufacturing period ending in 1958.

The Company has also been a defendant in other asbestos-related lawsuits or claims involving maritime workers, medical monitoring claimants, co-defendants and property damage claimants. Based upon its past experience, the Company believes that these categories of lawsuits and claims will not involve any material liability and they are not included in the above description of pending matters or in the following description of disposed matters.

Since receiving its first asbestos claim, the Company as of December 31, 2017, has disposed of the asbestos claims of approximately 399,000 plaintiffs and claimants at an average indemnity payment per claim of approximately $9,600. The Company's asbestos indemnity payments have varied on a per claim basis, and are expected to continue to vary considerably over time. Asbestos-related cash payments for 2017, 2016, and 2015 were $110 million, $125 million, and $138 million, respectively. The Company's cash payments per claim disposed (inclusive of legal costs) were approximately $83,000, $71,000 and $95,000 for the years ended December 31, 2017, 2016, and 2015, respectively.

As discussed above, the Company's objective is to achieve, where possible, resolution of asbestos claims pursuant to claims-handling agreements. Failure of claimants to meet certain medical and product exposure criteria in the Company's administrative claims handling agreements has generally reduced the number of claims that would otherwise have been received by the Company in the tort system. In addition, certain court orders and legislative acts have reduced or eliminated the number of claims that the Company otherwise would have received by the Company in the tort system. These developments generally have had the effect of increasing the Company's per-claim average indemnity payment over time.

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $4.9 billion through 2017, before insurance recoveries, for its asbestos-related liability. The Company's estimates of its liability have been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

The Company continues to monitor trends that may affect its ultimate liability and analyze the developments and variables likely to affect the resolution of pending and future asbestos claims against the Company. The material components of the Company's total accrued liability are determined by the Company in connection with its annual comprehensive legal review and consist of the following estimates, to the extent it is probable that such liabilities have been incurred and can be reasonably estimated: (i) the liability for asbestos claims already asserted against the Company; (ii) the liability for asbestos claims not yet asserted against the Company; and (iii) the legal defense costs estimated to be incurred in connection with the claims already asserted and those claims the Company believes will be asserted.

As noted above, the Company conducts a comprehensive legal review of its asbestos-related liabilities and costs annually in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its current annual comprehensive legal review, the Company provides historical claims filing data to a third party with expertise in determining the impact of disease incidence and mortality on future filing trends to develop information to assist the Company in estimating the total number of future claims to be filed. The Company uses this estimate of total future claims, along with an estimation of disposition costs and related legal costs, as inputs to develop its best estimate of its total probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos-containing insulation prior to its exit from that business in 1958;

b) claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future asbestos lawsuits and claims.

For the years ended December 31, 2017 and 2016, the Company concluded that accruals in the amounts of $582 million and $692 million, respectively, were required. These amounts have not been discounted for the time value of money. The Company's comprehensive legal reviews resulted in charges of $0, $0 and $16 million for the years ended December 31, 2017, 2016, and 2015, respectively.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $582 million as of December 31, 2017. The Company estimates that reasonably possible losses could result in asbestos-related liabilities up to $725 million. This estimate of additional reasonably possible loss reflects a qualitative legal judgment regarding the nature of contingencies that could impact future claims and legal costs, which include, but are not limited to, successful attempts by plaintiffs to challenge existing legal barriers to liability, enact plaintiff-oriented liability or damage-related legislation, establish new theories of liability, or revive long-dormant inventories of non-mesothelioma cases. However, it is also possible that the ultimate amount of asbestos-related liabilities could be above this estimate.

The Company expects a significant majority of the total number of claims to be received in the next ten years. This timeframe appropriately reflects the mortality of current and expected claimants in light of the Company's sale of its insulation business unit in 1958.

As noted above, the Company's asbestos-related liability is based on a projection of new claims that will eventually be filed against the Company and the estimated average disposition cost of these claims and related legal costs. Changes in these projections, and estimates, as well as changes in the significant assumptions noted above, have the potential to significantly impact the estimation of the Company's asbestos-related liability.

Other Matters

On July 5, 2016, the Company learned that the Enforcement Division of the SEC is conducting an investigation into certain accounting and control matters pertaining to the Company's determination of its asbestos-related liabilities. On May 13, 2016, the Company restated its consolidated financial statements for the years ended December 31, 2015, 2014 and 2013 in order to correct an error related to the Company's method for estimating its future asbestos-related liabilities. The Company is cooperating with the SEC's investigation. At this time, the Company is unable to predict the outcome of this matter or provide meaningful quantification of how the final resolution of this matter may impact its future consolidated financial statements, results of operations, or cash flows.

Other litigation is pending against the Company, in many cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

13. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Income (Loss)
Balance on January 1, 2016	$ (568)	$ (17)	$ (1,432)	$ (2,017)
Change before reclassifications	(220)	7	(2)	(215)
Amounts reclassified from accumulated other comprehensive income		6 (a)	72 (b)	78
Translation effect			(25)	(25)
Tax effect			15	15
Intraperiod tax allocation			(8)	(8)
Other comprehensive income (loss) attributable to the Company	(220)	13	52	(155)
Balance on December 31, 2016	(788)	(4)	(1,380)	(2,172)
Change before reclassifications	65	(3)	(8)	54
Amounts reclassified from accumulated other comprehensive income		(6)(a)	285 (b)	279
Translation effect			32	32
Tax effect		1	(20)	(19)
Other comprehensive income (loss) attributable to the Company	65	(8)	289	346
Balance on December 31, 2017	$ (723)	$ (12)	$ (1,091)	$ (1,826)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 7 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 9 for additional information).

14. Stock Based Compensation

The Company has various nonqualified plans approved by share owners under which it has granted stock options, restricted shares and performance vested restricted share units. Starting with the 2017 equity awards, the Company has allocated these awards solely in the form of restricted shares and performance vested restricted share units. As such, the Company's annual compensation expense related to stock option awards is immaterial. At December 31, 2017, there were 5,620,022 shares available for grants under these plans. Total compensation cost for all grants of shares and units under these plans was $18 million, $11 million and $15 million for the years ended December 31, 2017, 2016, and 2015, respectively.

Restricted Shares and Restricted Share Units

Restricted share units granted to employees vest 25% per year beginning on the first anniversary. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Holders of vested restricted share units receive one share of the Company's common stock for each unit as units vest. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units, is amortized over the vesting periods which range from one to four years.

The activity of restricted shares and restricted share units is as follows:

	Number of Restricted Shares (thousands)	Weighted Average Grant-Date Fair Value (per share)
Nonvested at January 1, 2017	836	$ 19.44
Granted	601	20.01
Vested	(255)	21.30
Forfeited	(74)	18.31
Nonvested at December 31, 2017	1,108	19.39
Awards granted during 2016		$ 15.70
Awards granted during 2015		$ 22.69

	2017	2016	2015
Total fair value of shares vested	$ 5	$ 6	$ 4

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to 2 shares of the Company's common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of the Company's Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of the Company's common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

Performance vested restricted share unit activity is as follows:

	Number of Performance Vested Restricted Shares Units (thousands)	Weighted Average Grant-Date Fair Value (per unit)
Nonvested at January 1, 2017	1,355	$ 20.76
Granted	528	19.57
Vested	(66)	33.39
Forfeited/Cancelled	(223)	29.23
Nonvested at December 31, 2017	1,594	18.66
Awards granted during 2016		$ 15.10
Awards granted during 2015		$ 23.63

Approximately 66,000 shares were issued in 2017 with a fair value at issuance date of $2 million related to performance vested restricted share units.

As of December 31, 2017, there was $19 million of total unrecognized compensation cost related to all unvested stock options, restricted shares, restricted share units and performance vested restricted share units. That cost is expected to be recognized over a weighted average period of approximately two years.

15. Other Expense, net

Other expense, net for the years ended December 31, 2017, 2016, and 2015 included the following:

	2017	2016	2015
Restructuring, asset impairment and other charges	$ 77	$ 104	$ 75
Intangible amortization expense	41	39	21
Impairment of equity investment		25	
Charge for asbestos related costs			16
Gain on China land compensation		(71)	
Royalty income	(11)	(13)	(12)
Strategic transaction costs			23
Acquisition-related fair value intangible adjustments			10
Foreign currency exchange loss (gain)	5	6	(10)
Other expense (income)	(7)	(14)	(12)
	$ 105	$ 76	$ 111

In 2016, the Company evaluated the future estimated earnings and cash flow of an equity investment and determined that it was other-than-temporarily impaired. As such, the Company recorded an impairment charge of $25 million to reduce its carrying value down to its estimated fair value. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy as set forth in the general accounting principles for fair value measurements.

16. Operating Leases

Rent expense attributable to all warehouse, office buildings and equipment operating leases was $84 million in 2017, $80 million in 2016, and $72 million in 2015. Minimum future rentals under operating leases are as follows: 2018, $73 million; 2019, $55 million; 2020, $40 million; 2021, $29 million; 2022, $24 million; and 2023 and thereafter, $37 million.

17. Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share:

	2017	2016	2015
Numerator:			
Net earnings attributable to the Company	$ 180	$ 209	$ 135
Denominator (in thousands):			
Denominator for basic earnings per share-weighted average shares outstanding	162,737	161,857	161,169
Effect of dilutive securities:			
Stock options and other	1,910	968	966
Denominator for diluted earnings per share-adjusted weighted average shares outstanding	164,647	162,825	162,135
Basic earnings per share:			
Earnings from continuing operations	$ 1.12	$ 1.33	$ 0.86
Loss from discontinued operations	(0.01)	(0.04)	(0.03)
Net earnings	$ 1.11	$ 1.29	$ 0.83
Diluted earnings per share:			
Earnings from continuing operations	$ 1.11	$ 1.32	$ 0.85
Loss from discontinued operations	(0.01)	(0.04)	(0.03)
Net earnings	$ 1.10	$ 1.28	$ 0.82

Options to purchase 1,552,928, 2,770,458 and 1,937,315 weighted average shares of common stock which were outstanding during 2017, 2016, and 2015, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares.

18. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2017	2016	2015
Decrease (increase) in current assets:			
Receivables	$ (37)	$ (32)	$ (14)
Inventories	2	16	(13)
Prepaid expenses and other	(10)	145	(4)
Increase (decrease) in current liabilities:			
Accounts payable	69	(58)	100
Accrued liabilities	(49)	(31)	21
Salaries and wages	(21)	32	12
U.S. and foreign income taxes	(43)	18	(14)
	$ (89)	$ 90	$ 88

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2017 and 2016, the amount of receivables sold by the Company was $454 million and $318 million, respectively. Any continuing involvement with the sold receivables is immaterial.

Income taxes paid in cash were as follows:

	2017	2016	2015
U.S.	$ 4	$ —	$ —
Non-U.S.	127	99	101
Total income taxes paid in cash	$ 131	$ 99	$ 101

Interest paid in cash, including note repurchase premiums, for the years ended December 31, 2017, 2016 and 2015 was $261 million, $261 million and $227 million, respectively. Cash interest for the years ended December 31, 2017, 2016 and 2015 included $18 million, $9 million and $32 million of note repurchase premiums, respectively.

19. Business Combinations and Pro Forma Information

On September 1, 2015, the Company completed the Vitro Acquisition in a cash transaction valued at approximately $2.297 billion in cash, subject to a working capital adjustment and certain other adjustments. The Vitro Business in Mexico is the largest supplier of glass containers in that country manufacturing glass containers across multiple end uses, including food, soft drinks, beer, wine and spirits. The Vitro Acquisition included five food and beverage glass container plants in Mexico, a plant in Bolivia and a North American distribution business, and provided the Company with a competitive position in the glass packaging market in Mexico. The results of the Vitro Business have been included in the Company's consolidated financial statements since September 1, 2015 and contributed approximately $608 million of incremental net sales and $122 million of incremental segment operating profit in the year ended December 31, 2016. Vitro's food and beverage glass container operations in Mexico and Bolivia are included in the Latin American operating segment while its distribution business is included in the North American operating segment.

Had the Vitro Acquisition occurred at the beginning of 2015, unaudited pro forma consolidated net sales, earnings from continuing operations and earnings from continuing operations per share of common stock (diluted) would have been as follows:

	Year Ending December 31, 2015			
	As Reported	Acquisition Adjustments	Financing Adjustments	Pro Forma As Adjusted
Net sales	$ 6,156	$ 574	$ —	$ 6,730
Earnings from continuing operations attributable to the Company	$ 139	$ 79	$ (46)	$ 172
Diluted earnings per share from continuing operations	$ 0.85			$ 1.06

20. Discontinued Operations

On April 4, 2016, the annulment committee formed by the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") ruled that OI European Group B.V. ("OIEG"), a subsidiary of the Company, is free to pursue the enforcement of a prior arbitration award (the "Award") against Venezuela. As of December 31, 2017, that Award amounts to more than $500 million, including reimbursement of expenses and accrued interest. Venezuela's application to annul the Award was heard by an ad hoc committee of the ICSID in September 2017, but no decision has been rendered yet.

On July 31, 2017, OIEG sold its right, title and interest in amounts due under the Award to an Ireland-domiciled investment fund. Under the terms of the sale, OIEG received a payment, in cash, at closing equal to $115 million (the "Cash Payment"). OIEG may also receive additional payments in the future ("Deferred Amounts") calculated based on the total compensation that is received from Venezuela as a result of collection efforts or as settlement of the Award with Venezuela. In the event that the Award is partially or completely annulled by the ICSID ad hoc annulment committee, OIEG may be required to repay to the purchaser up to the entire amount of the Cash Payment based on a formula tied to the amount of the Award (if any) that is annulled. In addition, OIEG's right to receive any Deferred Amounts is subject to the limitations described below.

OIEG's interest in any amounts received in the future from Venezuela in respect of the Award is limited to a percentage of such recovery after taking into account reimbursement of the Cash Payment to the purchaser and reimbursement of legal fees and expenses incurred by the Company and the purchaser. OIEG's percentage of such recovery will also be reduced over time. Because the Award has yet to be satisfied, the annulment proceeding is pending, and the ability to successfully enforce the Award in countries that are party to the ICSID Convention is subject to significant challenges, the Company is unable to reasonably predict the amount of recoveries from the Award, if any, to which the Company may be entitled in the future. Any future amounts that the Company may receive from the Award are highly speculative and the timing of any such future payments, if any, is highly uncertain. As such, there can be no assurance that the Company will receive any future payments under the Award beyond the Cash Payment. Except as noted above in connection with the annulment proceeding that is pending before the ICSID ad hoc committee, the Cash Payment is not subject to any forfeiture or future adjustment.

A separate arbitration involving other subsidiaries of the Company was initiated in 2012 to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants. However, in November 2017, ICSID issued an award that dismissed this arbitration on jurisdiction grounds. The Company is currently exploring potential next steps.

As of December 31, 2017, the Company deferred the gain contingency on the sale of its rights in amounts due under the Award pending the ad hoc committee of the ICSID rendering its decision regarding Venezuela's application to annul the Award.

The loss from discontinued operations of $3 million and $7 million, for the years ended December 31, 2017 and 2016, respectively, relates to ongoing costs for the Venezuelan expropriation.

Selected Quarterly Financial Data (unaudited) The following tables present selected financial data by quarter for the years ended December 31, 2017 and 2016:

	2017				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$ 1,615	$ 1,751	$ 1,791	$ 1,712	$ 6,869
Gross profit	$ 315	$ 346	$ 353	$ 120	$ 1,133
Earnings (loss) from continuing operations attributable to the Company (a)	$ 49	$ 140	$ 128	$ (133)	$ 183
Loss from discontinued operations attributable to the Company			(2)		(3)
Net earnings (loss) attributable to the Company	$ 49	$ 140	$ 126	$ (133)	$ 180
Earnings per share of common stock (a) (b):					
Basic:					
Earnings (loss) from continuing operations	$ 0.30	$ 0.86	$ 0.78	$ (0.78)	$ 1.12
Loss from discontinued operations			(0.01)	—	(0.01)
Net earnings (loss)	$ 0.30	$ 0.86	$ 0.77	$ (0.78)	$ 1.11
Diluted:					
Earnings (loss) from continuing operations	$ 0.30	$ 0.85	$ 0.77	$ (0.78)	$ 1.11
Loss from discontinued operations			(0.01)	—	(0.01)
Net earnings (loss)	$ 0.30	$ 0.85	$ 0.76	$ (0.78)	$ 1.10

(a) Amounts management considers not representative of ongoing operations include:

For the first quarter, included net charges totaling $46 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.28.

For the second quarter, included net benefits totaling $16 million after-tax amount attributable to the Company. The effect of these benefits was an increase in earnings per share of $0.10.

For the fourth quarter, included net charges totaling $224 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $1.36.

(b) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

	2016				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$ 1,588	$ 1,760	$ 1,712	$ 1,642	$ 6,702
Gross profit	$ 319	$ 342	$ 336	$ 215	$ 1,212
Earnings (loss) from continuing operations attributable to the Company (c)	$ 68	$ 107	$ 111	$ (70)	$ 216
Loss from discontinued operations attributable to the Company	(1)	(2)	(3)	(1)	(7)
Net earnings (loss) attributable to the Company	$ 67	$ 105	$ 108	$ (71)	$ 209
Earnings per share of common stock (c) (d):					
Basic:					
Earnings (loss) from continuing operations	$ 0.42	$ 0.66	$ 0.68	$ (0.43)	$ 1.33
Loss from discontinued operations	(0.01)	(0.01)	(0.02)	(0.01)	(0.04)
Net earnings (loss)	$ 0.41	$ 0.65	$ 0.66	$ (0.44)	$ 1.29
Diluted:					
Earnings (loss) from continuing operations	$ 0.42	$ 0.65	$ 0.68	$ (0.43)	$ 1.32
Loss from discontinued operations	(0.01)	(0.01)	(0.02)	(0.01)	(0.04)
Net earnings (loss)	$ 0.41	$ 0.64	$ 0.66	$ (0.44)	$ 1.28

(c) Amounts management considers not representative of ongoing operations include:

For the first quarter, included net charges totaling $10 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.06.

For the fourth quarter, included net charges totaling $150 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.93.

(d) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Also, the Company has investments in certain unconsolidated entities. As the Company does not control or manage these entities, its disclosure controls and procedures with respect to such entities are necessarily substantially more limited than those maintained with respect to its consolidated subsidiaries.

As required by Rule 13a-15(b) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2017.

Management's Report on Internal Control over Financial Reporting

The management of Owens-Illinois, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2017. In making this assessment management used the criteria for effective internal control over financial reporting as described in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO framework) in 2013.

Based on this assessment, using the criteria above, management concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2017.

The Company's independent registered public accounting firm, Ernst & Young LLP, that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting which is included below.

Changes in Internal Control over Financial Reporting

As required by Rule 13a-15(d) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of any change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Share Owners of
Owens-Illinois, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Owens-Illinois, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2017 and 2016, and the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and financial statement schedule listed in the Index at Item 15 and our report dated February 14, 2018 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP
Toledo, Ohio
February 14, 2018

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to non-officer directors and corporate governance is included in the 2018 Proxy Statement in the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" and such information is incorporated herein by reference.

Information with respect to executive officers is included herein in Item 1.

Code of Business Conduct and Ethics

The Company's Global Code of Business Conduct and Ethics, which is applicable to all directors, officers and employees of the Company, including the principal executive officer, the principal financial officer and the principal accounting officer, is available on the Investor Relations section of the Company's web site (www.o-i.com). A copy of the Code is also available in print to share owners upon request, addressed to the Corporate Secretary at Owens-Illinois, Inc., One Michael Owens Way, Perrysburg, Ohio 43551. The Company intends to post amendments to or waivers from its Code of Business Conduct and Ethics (to the extent applicable to the Company's directors, executive officers or principal financial officers) at this location on its web site.

ITEM 11. EXECUTIVE COMPENSATION

The section entitled "Executive Compensation," exclusive of the subsection entitled "Board Compensation Committee Report," which is included in the 2018 Proxy Statement, is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The section entitled "Security Ownership of Certain Beneficial Owners and Management" which is included in the 2018 Proxy Statement is incorporated herein by reference.

The following table summarizes securities authorized for issuance under equity compensation plans as of December 31, 2017.

	Equity Compensation Plan Information		
	(a)	(b)	(c)
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1) (thousands)	Weighted-average exercise price of outstanding options, warrants and rights (1)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (thousands)
Equity compensation plans approved by security holders	5,389	$ 22.36	5,620
Equity compensation plans not approved by security holders	—	—	—
Total	5,389	$ 22.36	5,620

(1) Represents 2,687,000 options to purchase shares of the Company's common stock and 2,702,000 restricted share units which do not provide for an exercise price and have been excluded from the weighted average exercise price in column (b). There are no outstanding warrants.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The section entitled "Director and Executive Compensation and Other Information," exclusive of the subsection entitled "Board Compensation Committee Report on Executive Compensation," which is included in the 2018 Proxy Statement, is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Information with respect to principal accountant fees and services is included in the 2018 Proxy Statement in the section entitled "Independent Registered Public Accounting Firm" and such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Index of Financial Statements and Financial Statement Schedules Covered by Report of Independent Auditors.

(a) DOCUMENTS FILED AS PART OF THIS REPORT

1. See Index to Consolidated Financial Statements on page 48 hereof.

2. See Quarterly Results (Unaudited) beginning on page 93 hereof.

3. Financial Statement Schedule:

	10-K Page
For the years ended December 31, 2017, 2016, and 2015:	
II—Valuation and Qualifying Accounts (Consolidated)	S-1

All other schedules have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule.

4. See Exhibit Index beginning on page 100 hereof.

EXHIBIT INDEX

S-K Item 601 No.		Document
2.1	—	Stock Purchase Agreement, dated as of May 12, 2015, by and between Owens-Brockway Glass Container Inc. and Vitro, S.A.B. de C.V., Distribuidora Alcali, S.A. de C.V. and Vitro Packaging, LLC (filed as Exhibit 2.1 to the Owens-Illinois, Inc.'s Form 8-K/A filed on May 13, 2015, File No. 1-9576, and incorporated herein by reference).
3.1	—	Third Restated Certificate of Incorporation of Owens-Illinois, Inc. (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2012, File No. 1-9576, and incorporated herein by reference).
3.2	—	Fourth Amended and Restated Bylaws of Owens-Illinois, Inc., (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 8-K dated July 13, 2017, File No. 1-9576, and incorporated herein by reference).
4.1	—	Indenture dated as of May 20, 1998, between Owens-Illinois, Inc. and The Bank of New York, as Trustee (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.2	—	Officers' Certificate, dated May 20, 1998, establishing the terms of the 7.80% Senior Notes due 2018; including the Form of 7.80% Senior Note due 2018 (filed as Exhibits 4.5 and 4.9, respectively, to Owens-Illinois, Inc.'s Form 8-K dated May 20, 1998, File No. 1-9576, and incorporated herein by reference).
4.3	—	Supplemental Indenture, dated as of June 26, 2001, to the Indenture dated May 20, 1998, among Owens-Illinois, Inc., Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc. and The Bank of New York, as Trustee (filed as Exhibit 4.1 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2001, File No. 1-9576, and incorporated herein by reference).
4.4	—	Indenture, dated as of September 15, 2010, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar, Luxembourg paying agent and transfer agent, including the form of the Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated September 10, 2010, File No. 33-13061, and incorporated herein by reference).
4.5	—	Indenture dated as of March 22, 2013, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar and Luxembourg transfer agent, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated March 22, 2013, File No. 33-13061, and incorporated herein by reference).
4.6	—	Indenture dated as of December 3, 2014, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2022 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated December 3, 2014, File No. 33-13061, and incorporated herein by reference).

S-K Item 601 No.		Document
4.7	—	Indenture dated as of August 24, 2015, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2023 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated August 24, 2015, File No. 33-13061, and incorporated herein by reference).
4.8	—	Indenture, dated as of November 3, 2016, by and among OI European Group B.V., the guarantors party thereto, Deutsche Trustee Company Limited, as trustee, Deutsche Bank AG, London Branch, as principal paying agent and transfer agent, and Deutsche Bank Luxembourg S. A., as Luxembourg transfer agent and registrar, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated November 3, 2016, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
4.9	—	Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated as of April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.10	—	Amendment No. 1, dated July 24, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.2 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2015, File No. 1-9576, and incorporated herein by reference).
4.11	—	Amendment No. 2, dated September 1, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 10.1 to Owens-Illinois Inc.'s Form 8-K dated September 1, 2015, File No. 1-9576, and incorporated herein by reference).
4.12	—	Amendment No. 3, dated September 29, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.4 to Owens-Illinois Inc.'s Form 10-Q for the quarter ended September 30, 2015, File No. 1-9576, and incorporated herein by reference).
4.13	—	Amendment No. 4, dated February 3, 2016, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated as of April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated February 3, 2016, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
4.14	—	Amendment No. 5, dated September 28, 2017, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated as of April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General, Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s Form 8-K dated September 29, 2017, File No. 1-9576, and incorporated herein by reference).
4.15	—	First Incremental Amendment, dated September 1, 2015, to the Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated April 22, 2015, by and among the Borrowers named therein, Owens-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG, New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 10.2 to Owens-Illinois Inc.'s Form 8-K dated September 1, 2015, File No. 1-9576, and incorporated herein by reference).
4.16	—	Third Amended and Restated Intercreditor Agreement, dated as of May 19, 2011, by and among Deutsche Bank AG, New York Branch, as Administrative Agent for the lenders party to the Credit Agreement (as defined therein) and Deutsche Bank Trust Company Americas, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated May 19, 2011, File No. 33-13061, and incorporated herein by reference).
4.17	—	Fourth Amended and Restated Pledge Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc., and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.18	—	Amended and Restated Security Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., each of the direct and indirect subsidiaries of Owens-Illinois Group, Inc. signatory thereto, and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) (filed as Exhibit 4.3 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.19	—	Indenture, dated as of December 12, 2017, by and among OI European Group B.V., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as Trustee (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated December 12, 2017, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
10.1*	—	Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1998, File No. 1-9576, and incorporated herein by reference).
10.2*	—	First Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2000, File No. 1-9576, and incorporated herein by reference).
10.3*	—	Second Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2002, File No. 1-9576, and incorporated herein by reference).
10.4*	—	Third Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2003, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.5*	—	Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.26 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.6*	—	First Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.27 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.7*	—	Second Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 1997, File No. 1-9576, and incorporated herein by reference).
10.8*	—	Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1999, File No. 1-9576, and incorporated herein by reference).
10.9*	—	First Amendment to Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2002, File No. 1-9576, and incorporated herein by reference).
10.10*	—	Owens-Illinois, Inc. Executive Deferred Savings Plan (filed as Exhibit 10.10 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2016, File No. 1-9576, and incorporated herein by reference).
10.11*	—	2004 Equity Incentive Plan for Directors of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2004, File No. 1-9576, and incorporated herein by reference).
10.12*	—	Owens-Illinois 2004 Executive Life Insurance Plan (filed as Exhibit 10.32 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.13*	—	Owens-Illinois 2004 Executive Life Insurance Plan for Non-U.S. Employees (filed as Exhibit 10.33 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.14*	—	Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan dated as of April 24, 2009 (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2009, File No. 1-9576, and incorporated herein by reference).
10.15*	—	Form of Non-Qualified Stock Option Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.25 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.16*	—	Form of Restricted Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.30 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
10.17*	—	Form of Phantom Stock Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.31 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2005, File No. 1-9576, and incorporated herein by reference).
10.18*	—	Form of Restricted Stock Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.28 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.19*	—	Form of Performance Share Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.29 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.20*	—	Second Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 31, 2014, File No. 1-9576, and incorporated herein by reference).
10.21*	—	Form of Non-Qualified Stock Option Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.22*	—	Form of Restricted Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2017, File No. 1-9576, and incorporated herein by reference).
10.23*	—	Form of Performance Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2017, File No. 1-9576, and incorporated herein by reference).
10.24*	—	Owens-Illinois, Inc. 2017 Incentive Award Plan (filed as Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 30, 2017, File No. 1-9576, and incorporated herein by reference).
10.25*	—	Owens-Illinois, Inc. Executive Severance Policy (filed as Exhibit 10.4 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.26*	—	Amended and Restated Letter Agreement between Owens-Illinois, Inc. and Albert P.L. Stroucken (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated October 26, 2011, File No. 1-9576, and incorporated herein by reference).
10.27*	—	Letter Agreement dated March 7, 2015, between Owens-Illinois, Inc. and Stephen P. Bramlage, Jr. (filed as Exhibit 10.5 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.28*	–	Letter Agreement signed November 20, 2015, between Owens-Illinois, Inc. and Jan Bertsch (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated November 23, 2015, File No. 1-9576, and incorporated herein by reference).
10.29*	—	Letter Agreement dated March 7, 2016, between Owens-Illinois, Inc. and James W. Baehren (filed as Exhibit 99.1 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2016, File No. 1-9576, and incorporated herein by reference).
12	—	Computation of Ratio of Earnings to Fixed Charges (filed herewith).
21	—	Subsidiaries of Owens-Illinois, Inc. (filed herewith).
23	—	Consent of Independent Registered Public Accounting Firm (filed herewith).
24	—	Owens-Illinois, Inc. Power of Attorney (filed herewith).
31.1	—	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	—	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).

S-K Item 601 No.		Document
32.1**	—	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
32.2**	—	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
101	—	Financial statements from the Annual Report on Form 10-K of Owens-Illinois, Inc. for the year ended December 31, 2017, formatted in XBRL: (i) the Consolidated Results of Operations, (ii) the Consolidated Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Share Owners' Equity, (v) the Consolidated Cash Flows and (vi) the Notes to Consolidated Financial Statements.

* Indicates a management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(c).

** This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

OWENS-ILLINOIS, INC.
(Registrant)

By: /s/ MARY BETH WILKINSON
Mary Beth Wilkinson
Attorney-in-fact

Date: February 14, 2018

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Owens-Illinois, Inc. and in the capacities and on the dates indicated.

Signatures	Title
Andres A. Lopez	President and Chief Executive Officer (Principal Executive Officer)
Jan A. Bertsch	Senior Vice President and Chief Financial Officer (Principal Financial Officer; Principal Accounting Officer)
Carol A. Williams	Chairman of the Board
Gary F. Colter	Director
Gordon J. Hardie	Director
Peter S. Hellman	Director
Anastasia D. Kelly	Director
John J. McMackin, Jr.	Director
Alan J. Murray	Director
Hari N. Nair	Director
Hugh H. Roberts	Director
Joseph D. Rupp	Director
Dennis K. Williams	Director

By: /s/ MARY BETH WILKINSON
Mary Beth Wilkinson
Attorney-in-fact

Date: February 14, 2018

INDEX TO FINANCIAL STATEMENT SCHEDULE

Financial Statement Schedule of Owens-Illinois, Inc. and Subsidiaries:

For the years ended December 31, 2017, 2016, and 2015:

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II—Valuation and Qualifying Accounts (Consolidated)	S-1

OWENS-ILLINOIS, INC.

SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS (CONSOLIDATED)

Years ended December 31, 2017, 2016, and 2015

(Millions of Dollars)

Reserves deducted from assets in the balance sheets:

Allowances for losses and discounts on receivables

	Balance at beginning of period	Additions: Charged to costs and expenses	Additions: Other	Deductions (Note 1)	Balance at end of period
2017	$ 32	$ 12	$ (2)	$ (8)	$ 34
2016	$ 29	$ 15	$ (2)	$ (10)	$ 32
2015	$ 34	$ 12	$ (5)	$ (12)	$ 29

(1) Deductions from allowances for losses and discounts on receivables represent uncollectible notes and accounts written off.

Valuation allowance on net deferred tax assets

	Balance at beginning of period	Charged to income	Charged to other comprehensive income	Foreign currency translation	Other (Note 1)	Balance at end of period
2017	$ 1,094	$ 15	$ (79)	$ 4	$ (491)	$ 543
2016	$ 1,135	$ 3	$ (32)	$ (3)	$ (9)	$ 1,094
2015	$ 1,223	$ 1	$ 5	$ (20)	$ (74)	$ 1,135

(1) The Tax Cut and Jobs Act ("the Act") was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%. The reduction in tax rates reduced certain U.S. deferred tax assets by $162 million, with an offsetting impact to valuation allowance. In 2017, $327 million of foreign tax credits expired, against which a valuation allowance had previously been asserted.

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EXHIBIT 12

OWENS-ILLINOIS, INC.
COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES
(Millions of dollars, except ratios)

	Years ended December 31,				
	2017	**2016**	**2015**	**2014**	**2013**
Earnings from continuing operations before income taxes	$ 275	$ 356	$ 268	$ 307	$ 468
Less: Equity earnings	(77)	(60)	(60)	(64)	(67)
Add: Total fixed charges deducted from earnings	279	284	264	238	242
Dividends received from equity investees	48	38	53	54	67
Earnings available for payment of fixed charges	$ 525	$ 618	$ 525	$ 535	$ 710
Fixed charges (including the Company's proportional share of 50% owned associates):					
Interest expense	$ 276	$ 279	$ 259	$ 235	$ 239
Portion of operating lease rental deemed to be interest	3	5	5	3	3
Total fixed charges deducted from earnings	$ 279	$ 284	$ 264	$ 238	$ 242
Ratio of earnings to fixed charges	1.9	2.2	2.0	2.2	2.9

(This page has been left blank intentionally.)

EXHIBIT 21

SUBSIDIARIES OF OWENS-ILLINOIS, INC.

Owens-Illinois, Inc. had the following subsidiaries at December 31, 2017 (subsidiaries are indented following their respective parent companies):

Name	State/Country of Incorporation or Organization
Owens-Illinois Group, Inc.	Delaware
OI General Finance Inc.	Delaware
OI General FTS Inc.	Delaware
OI Castalia STS Inc.	Delaware
OI Levis Park STS Inc.	Delaware
Owens-Illinois General Inc.	Delaware
Owens Insurance, Ltd.	Bermuda
Universal Materials, Inc.	Ohio
OI Advisors, Inc.	Delaware
OI Securities, Inc.	Delaware
OI Transfer, Inc.	Delaware
Sovereign Air, LLC	Texas
Maumee Air Associates Inc.	Delaware
OI Australia Inc.	Delaware
Continental PET Holdings Pty. Ltd.	Australia
ACI America Holdings Inc.	Delaware
ACI Ventures, Inc.	Delaware
Owens-Brockway Packaging, Inc.	Delaware
Owens-Brockway Glass Container Inc.	Delaware
O-I Packaging Solutions LLC	Delaware
O-I Bolivia Holdings Limited	United Kingdom
Vidrio Lux S.A.	Bolivia
OI Andover Group Inc.	Delaware
The Andover Group, Inc.	Delaware
Brockway Realty Corporation	Pennsylvania
NHW Auburn, LLC	Delaware
OI Auburn Inc.	Delaware
SeaGate, Inc.	Ohio
SeaGate II, Inc.	Ohio
SeaGate III, Inc.	Ohio
OIB Produvisa Inc.	Delaware
OI California Containers, Inc.	Delaware
O-I Latam Services S.A.S.	Colombia
OI Puerto Rico STS Inc.	Delaware
O-I Caribbean Sales & Distribution Inc.	Delaware
O-I Latam HQ, Inc.	Delaware
Bolivian Investments, Inc.	Delaware
Fabrica Boliviana de Vidrios S.A.	Bolivia
OI International Holdings Inc.	Delaware
O-I Global Holdings LLC	Delaware
O-I Global Holdings C.V.	Netherlands

Name	State/Country of Incorporation or Organization
O-I Holding LLC	Delaware
OI Global C.V.	Netherlands
O-I Americas LLC	Delaware
O-I Glass C.V.	Netherlands
O-I Mexico Holdings I B.V.	Netherlands
O-I Mexico Holdings II B.V.	Netherlands
Envases de Vidrio de las Americas, S. de R.L. de C.V.	Mexico
Especialidades Operativas de America, S. de R.L. de C.V.	Mexico
Glass International OISPV, S.A.P.I. de C.V.	Mexico
Owens America, S. de R.L. de C.V.	Mexico
Owens Vimosa, S. de R.L. de C.V.	Mexico
Owens Vigusa, S. de R.L. de C.V.	Mexico
Owens Virreyes, S. de R.L. de C.V.	Mexico
Owens Viquesa, S. de R.L. de C.V.	Mexico
Owens Vitolsa, S. de R.L. de C.V.	Mexico
OI Hungary LLC	Delaware
O-I Manufacturing Hungary Limited	Hungary
O-I Sales & Distribution Hungary Kft.	Hungary
O-I Ecuador LLC	Ohio
Cristaleria del Ecuador, S.A.	Ecuador
OI European Group B.V.	Netherlands
Owens-Illinois Singapore Pte. Ltd.	Singapore
OI China LLC.	Delaware
Wuhan Owens Glass Container Company Limited	China
ACI Beijing Limited	Hong Kong
O-I (Tianjin) Glass Container Co., Ltd.	China
Owens-Illinois Services H.K. Limited	Hong Kong
ACI Guangdong Limited	Hong Kong
ACI Guangdong Glass Company Limited	China
ACI Shanghai Limited	Hong Kong
O-I (Shanghai) Glass Container Co.. Ltd.	China
Owens-Illinois (HK) Limited	Hong Kong
O-I (Shanghai) Management Co Ltd.	China
O-I (Zhaoqing) Glass Container Co. Ltd.	China
O-I Sihui Glass Recycling Co. Ltd.	China
Owens-Illinois (Australia) Pty Ltd	Australia
ACI Packaging Services Pty Ltd.	Australia
ACI Operations Pty. Ltd.	Australia
ACI International Pty Ltd	Australia
ACI Glass Packaging Penrith Pty Ltd	Australia
PT Kangar Consolidated Industries	Indonesia
ACI Operations NZ Limited	New Zealand
O-I Asia-Pacific Holdings	Mauritius
O-I Sales and Distribution Netherlands B.V.	Netherlands
O-I Europe Sarl.	Switzerland
O-I Sales and Distribution UK Limited.	United Kingdom
O-I Sales and Distribution Poland Sp Z.o.o.	Poland
O-I Business Service Center Sp. Z.o.o.	Poland

Name	State/Country of Incorporation or Organization
O-I Manufacturing Poland S.A.	Poland
O-I Manufacturing UK Ltd.	United Kingdom
O-I Sales and Distribution Spain SL	Spain
Vidrieria Rovira, S. L.	Spain
OI Spanish Holdings B.V.	Netherlands
Owens-Illinois Peru S. A.	Peru
O-I Manufacturing Italy S.p.A.	Italy
O-I Manufacturing Czech Republic A.S.	Czech Republic
O-I Sales and Distribution Czech Republic s.r.o.	Czech Republic
San Domenico Vetraria S.r.l.	Italy
O-I Sales and Distribution Italy S.r.l.	Italy
O-I Manufacturing Netherlands B.V.	Netherlands
Veglarec B.V.	Netherlands
O-I Europe SAS	France
O-I Manufacturing France SAS	France
O-I Sales and Distribution France SAS	France
O-I Distribution SO	France
Champagne Emballage	France
O-I Glasspack Beteiligungs & Verwaltungsgesellschaft GmbH	Germany
OI Glasspack GmbH & Co. KG	Germany
O-I Sales and Distribution Germany GmbH	Germany
O-I Glasspack Verwaltungs GmbH	Germany
OI Canada Holdings B.V.	Netherlands
O-I Canada Corp.	Canada
Manufacturera de Vidrios Planos, C.A.	Venezuela
Owens-Illinois de Venezuela, C. A.	Venezuela
Fabrica de Vidrio Los Andes, C. A.	Venezuela
CMC S.A.	Colombia
Cristaleria Peldar, S.A.	Colombia
Cristar S.A.	Colombia
Industria de Materias Primas S.A.	Colombia
Vidrieria Fenicia	Colombia
Owens-Illinois do Brasil Industria e Comercio Ltda.	Brazil
Mineracao Silminas Ltda.	Brazil
Mineracao Descalvado Ltda.	Brazil
OI Finnish Holdings Oy	Finland
O-I Sales and Distribution Finland OY	Finland
O-I Sales and Distribution LT	Lithuania
O-I Production Estonia AS	Estonia
O-I Sales and Distribution Estonia OU	Estonia
O-I GMEC Lurin srl	Peru
O-I Jaroslaw Machine Service Center	Poland
Owens-Illinois Argentina S.A.	Argentina

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DIRECTORS AND OFFICERS

Directors

Carol A. Williams
Special Advisor to the Chief Executive Officer(retired), Dow Chemical Company

Gary F. Colter
President, CRS Inc.

Gordon J. Hardie
President, Bunge Food & Ingredients

Peter S. Hellman
President and Chief Financial and Administrative Officer (retired), Nordson Corporation

Anastasia D. Kelly
Co-Managing Partner (Americas), DLA Piper

Andres A. Lopez
President and Chief Executive Officer, Owens-Illinois

John J. McMackin, Jr.
Principal, Williams & Jensen, PLLC

Alan J. Murray
Managing Board Member for North America (retired), Heidelberg Cement AG

Hari N. Nair
Chief Operating Officer (retired), Tenneco Inc.

Hugh H. Roberts
President (retired), Kraft Foods International Commercial

Joseph D. Rupp
Chairman of the Board (retired), Olin Corporation

Dennis K. Williams
Chairman of the Board (retired), IDEX Corporation

Officers

Andres A. Lopez
President and Chief Executive Officer

Miguel I. Alvarez
President, O-I North America and O-I Latin America

Arnaud Aujouannet
Senior Vice President and Chief Sales and Marketing Officer

Jan A. Bertsch
Senior Vice President and Chief Financial Officer

Tim M. Connors
President, O-I Asia Pacific

Giancarlo Currarino
Senior Vice President and Chief Technology and Supply Chain Officer

Sergio B. O. Galindo
Vice President, Transition

John A. Haudrich
Senior Vice President and Chief Strategy and Integration Officer

Vitaliano Torno
President, O-I Europe

John C. Webb
Senior Vice President and Chief Human Resources Officer

MaryBeth Wilkinson
Senior Vice President, General Counsel and Corporate Secretary

COMPANY INFORMATION

Exchange Listing
Owens-Illinois common stock (symbol OI) is listed on the New York Stock Exchange.

Transfer Agent for Common Stock
Correspondence should be mailed to:
Computershare
P.O. Box 505000
Louisville, KY 40233

Overnight correspondence should be sent to:
Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202

Computershare website:
http://www.computershare.com/investor
Phone: (781) 575-2724 or 1-877-373-6374
Hearing-impaired: TDD 1-800-952-9245

Any inquiries regarding your account or certificates should be referred to Computershare Trust Company, N.A.

Trustees
U.S. Bank, N.A.
Global Corporate Trust Services
60 Livingston Avenue
EP-MN-WS3C
St. Paul, MN 55107-1419

5.00 % Senior Notes, due 2022
5.375 % Senior Notes, due 2025
5.875% Senior Notes, due 2023
6.375% Senior Notes, due 2025

Deutsche Trustee Company Limited
Winchester House
1 Great Winchester Street
London, England EC2N 2DB

6.75% Senior Notes, due 2020
4.875% Senior Notes, due 2021
3.125% Senior Notes, due 2024

Deutsche Bank Trust Company Americas
Global Securities Services
Global Transaction Banking
60 Wall Street, 16th Floor
New York, New York 10005

4% Senior Notes, due 2023

Annual Meeting
The annual meeting of share owners will be held at 9:00 a.m. on Thursday, May 10, 2018, in Plaza 2 of the O-I World Headquarters Campus, Perrysburg, OH.

Forms 10-K and 10-Q
The Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, filed with the Securities and Exchange Commission, may be obtained without charge by contacting:

Owens-Illinois, Inc.
Investor Relations
One Michael Owens Way
Perrysburg, OH 43551
Phone: (567) 336-2400

These reports are also available without charge on the Company's website at www.o-i.com

Website
For further information about O-I, visit the Company's website at www.o-i.com

Annual Certifications
The most recent certifications by the Chief Executive Officer and the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Company's Form 10-K. The Company has also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303.12(a) of the New York Stock Exchange Listed Company Manual.

Corporate Headquarters
Owens-Illinois, Inc.
One Michael Owens Way
Perrysburg, OH 43551

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10-K

YEAR ENDING **12.31.2018**

Owens-Illinois, Inc.

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D. C. 20549

FORM 10-K

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended
December 31, 2018

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission file number 1-9576

OWENS-ILLINOIS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**22-2781933**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
One Michael Owens Way, Perrysburg, Ohio	**43551**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(567) 336-5000**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $.01 par value	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of " large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐

Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value (based on the consolidated tape closing price on June 30, 2018) of the voting and non-voting common equity held by non-affiliates of Owens-Illinois, Inc. was approximately $1,852,928,000. For the sole purpose of making this calculation, the term "non-affiliate" has been interpreted to exclude directors and executive officers of the Company. Such interpretation is not intended to be, and should not be construed to be, an admission by Owens-Illinois, Inc. or such directors or executive officers of the Company that such directors and executive officers of the Company are "affiliates" of Owens-Illinois, Inc., as that term is defined under the Securities Act of 1934.

The number of shares of common stock, $.01 par value of Owens-Illinois, Inc. outstanding as of January 31, 2019 was 153,622,239.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Owens-Illinois, Inc. Proxy Statement for The Annual Meeting of Share Owners To Be Held Thursday, May 16, 2019 ("Proxy Statement") are incorporated by reference into Part III hereof.

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PART I

ITEM 1. BUSINESS

General Development of Business

Owens-Illinois, Inc., a Delaware corporation (the "Company"), through its subsidiaries, is the successor to a business established in 1903. The Company is the largest manufacturer of glass containers in the world with 77 glass manufacturing plants in 23 countries. It competes in the glass container segment of the rigid packaging market and is the leading glass container manufacturer in most of the countries where it has manufacturing facilities.

Company Strategy

The Company's vision is to responsibly provide innovative and competitive packaging solutions for the world's leading food and beverage companies. Its goal is to enable future success for its customers, employees and share owners. The Company will realize its vision and goal by achieving its strategic ambitions including:

- **To be the preferred supplier for glass packaging in the global food and beverage industry** by significantly improving the customer experience; aligning its activity with customers' value; improving quality and flexibility; and improving innovation and speed of commercialization; as well as increasing sales, marketing, end-to-end supply chain capabilities and talent;
- **To be the most cost effective producer in the global glass packaging segment** by ensuring asset stability and total systems cost management; increasing efficiency, leveraging automation, and improving quality; cultivating game changing concepts that create new competitive advantages; and focusing on continuous improvement; and
- **To expand its business in attractive, growing markets and segments** by leveraging innovation, growing with strategic customers; expanding into attractive new markets; and evaluating expansion into the value chain.

Reportable Segments

The Company has three reportable segments based on its geographic locations: Americas, Europe, and Asia Pacific. These three segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. To better leverage its scale and presence across a larger geography and market, the Company completed the consolidation of the former North America and Latin America segments into one segment, named the Americas, effective January 1, 2018.

Products and Services

The Company produces glass containers for alcoholic beverages, including beer, flavored malt beverages, spirits and wine. The Company also produces glass packaging for a variety of food items, soft drinks, teas, juices and pharmaceuticals. The Company manufactures glass containers in a wide range of sizes, shapes and colors and is active in new product development and glass container innovation.

Customers

In most of the countries where the Company competes, it has the leading position in the glass container segment of the rigid packaging market based on sales revenue. The Company's largest customers consist mainly of the leading global food and beverage manufacturers, including (in alphabetical order) Anheuser-Busch InBev, Brown-Forman, Carlsberg, Coca-Cola, Constellation, Diageo, Heineken, MillerCoors, Nestle and Pernod Ricard. No customer represents more than 10% of the Company's consolidated net sales.

The Company sells most of its glass container products directly to customers under annual or multi-year supply agreements. Multi-year contracts typically provide for price adjustments based on cost changes. The Company also sells some of its products through distributors. Many customers provide the Company with regular

estimates of their product needs, which enables the Company to schedule glass container production to maintain reasonable levels of inventory. Glass container manufacturing facilities are generally located in close proximity to customers.

Markets and Competitive Conditions

The Company's principal markets for glass container products are in the Americas, Europe and Asia Pacific.

Americas. The Company has 35 glass container manufacturing plants in the Americas region located in Argentina, Bolivia, Brazil, Canada, Colombia, Ecuador, Mexico, Peru, the U.S. and interests in three joint ventures that manufacture glass containers. Also, the Company has a distribution facility in the U.S. used to import glass containers from its business in Mexico. The Company has the leading share of the glass container segment of the U.S. rigid packaging market, based on sales revenue by domestic producers. In South America and Mexico, the Company maintains a diversified portfolio serving several markets, including alcoholic beverages (beer, wine and spirits), non-alcoholic beverages and food, as well as a large infrastructure for returnable/refillable glass containers.

The principal glass container competitors in the U.S. are the Ardagh Group and Anchor Glass Container. Imports from China, Mexico, Taiwan and other countries also compete in U.S. glass container segments. Additionally, there are several major consumer packaged goods companies that self-manufacture glass containers. The Company competes directly with Verallia in Brazil and Argentina, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region.

Europe. The Company has a leading share of the glass container segment of the rigid packaging market in the European countries in which it operates, with 34 glass container manufacturing plants located in the Czech Republic, Estonia, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the United Kingdom. These plants primarily produce glass containers for the alcoholic beverages (beer, wine and spirits), non-alcoholic beverages and food markets in these countries. The Company also has interests in two joint ventures that manufacture glass containers in Italy. Throughout Europe, the Company competes directly with a variety of glass container manufacturers including Verallia, Ardagh Group, Vetropack, Vidrala and BA Vidro.

Asia Pacific. The Company has eight glass container manufacturing plants in the Asia Pacific region, located in Australia, China, Indonesia and New Zealand. It also has interests in joint venture operations in China, Malaysia and Vietnam. In Asia Pacific, the Company primarily produces glass containers for the alcoholic beverages (primarily beer and wine), non-alcoholic beverages and food markets. The Company competes directly with Orora Limited in Australia, and does not believe that it competes with any other large, multinational glass container manufacturers in the rest of the region. In China, the glass container segments of the packaging market are regional and highly fragmented with a large number of local competitors.

In addition to competing with other large and well-established manufacturers in the glass container segment, the Company competes in all regions with manufacturers of other forms of rigid packaging, principally aluminum cans and plastic containers. Competition is based on quality, price, service, innovation and the marketing attributes of the container. The principal competitors producing metal containers include Ball Corporation, Crown Holdings, Inc., and Silgan Holdings Inc. The principal competitors producing plastic containers include Amcor, Consolidated Container Holdings, LLC, Reynolds Group Holdings Limited, Plastipak Packaging, Inc. and Silgan Holdings Inc. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches, aseptic cartons and bag-in-box containers.

The Company seeks to provide products and services to customers ranging from large multinationals to small local breweries and wineries in a way that creates a competitive advantage for the Company. The Company believes that it is often the glass container partner of choice because of its innovation and branding capabilities, its global footprint and its expertise in manufacturing know-how and process technology.

Manufacturing

The Company has 77 glass manufacturing plants. It constantly seeks to improve the productivity of these operations through the systematic upgrading of production capabilities, sharing of best practices among plants and effective training of employees.

The Company also provides engineering support for its glass manufacturing operations through facilities located in the U.S., Australia, France, Poland and Peru.

Suppliers and Raw Materials

The primary raw materials used in the Company's glass container operations are sand, soda ash, limestone and recycled glass. Each of these materials, as well as the other raw materials used to manufacture glass containers, has historically been available in adequate supply from multiple sources. One of the sources is a soda ash mining operation in Wyoming in which the Company has a 25% interest.

Energy

The Company's glass container operations require a continuous supply of significant amounts of energy, principally natural gas, fuel oil and electrical power. Adequate supplies of energy are generally available at all of the Company's manufacturing locations. Energy costs typically account for 10-20% of the Company's total manufacturing costs, depending on the cost of energy, the type of energy available, the factory location and the particular energy requirements. The percentage of total cost related to energy can vary significantly because of volatility in market prices, particularly for natural gas and fuel oil in volatile markets such as North America and Europe.

In the Americas' businesses in the U.S. and Canada, more than 90% of the sales volume is represented by customer contracts that contain provisions that pass the commodity price of natural gas to the customer, effectively reducing the region's exposure to changing natural gas market prices. In the Americas' business in South America and Mexico, the Company primarily enters into fixed price contracts for its energy requirements in most of the countries in which it operates and the remaining energy requirements are subject to changing natural gas market prices and economic impacts. These fixed price contracts typically have terms of one to ten years, and generally include annual price adjustments for inflation and for certain contracts price adjustments for foreign currency variation.

In Europe and Asia Pacific, the Company enters into long term contracts for a significant amount of its energy requirements. These contracts have terms that range from one to five years.

Also, in order to limit the effects of fluctuations in market prices for natural gas, the Company uses commodity forward contracts related to its forecasted requirements. The objective of these forward contracts is to reduce potential volatility in cash flows and expense due to changing market prices. The Company continually evaluates the energy markets with respect to its forecasted energy requirements to optimize its use of commodity forward contracts.

Research, Development and Engineering

Research, development and engineering constitute important parts of the Company's technical activities. The Company primarily focuses on advancements in the areas of product innovation, manufacturing process control, melting technology, automatic inspection, light-weighting and further automation of manufacturing activities. Recently, the Company has increased its focus on advancing melting technology with investments in modular glass melting furnaces. The Company's investments in this new technology seeks to reduce the amount of capital required to install, rebuild and operate its furnaces. This new melting technology is also focused on the ability of these assets to be more easily turned on and off or adjusted based on seasonality and customer demands. The Company's research and development activities are conducted principally at its corporate facilities in Perrysburg, Ohio.

The Company holds a large number of patents related to a wide variety of products and processes and has a substantial number of patent applications pending. While the aggregate of the Company's patents are of material

importance to its businesses, the Company does not consider that any patent or group of patents relating to a particular product or process is of material importance when judged from the standpoint of any individual segment or its businesses as a whole.

The Company has agreements to license its proprietary glass container technology and to provide technical assistance to a limited number of companies around the world. These agreements cover areas related to manufacturing and engineering assistance. The worldwide licensee network provides a stream of revenue to help support the Company's development activities. In 2018, 2017, and 2016, the Company earned $13 million, $11 million and $13 million, respectively, in royalties and net technical assistance revenue.

Sustainability and the Environment

The Company is committed to reducing the impact its products and operations have on the environment. As part of this commitment, the Company has set targets for increasing the use of recycled glass in its manufacturing process, while reducing energy consumption and carbon dioxide equivalent ("CO_2") emissions. Specific actions taken by the Company include working with governments and other organizations to establish and financially support recycling initiatives, partnering with other entities throughout the supply chain to improve the effectiveness of recycling efforts, reducing the weight of glass packaging and investing in research and development to reduce energy consumption in its manufacturing process. The Company invests in technology and training to improve safety, reduce energy use, decrease emissions and increase the amount of cullet, or recycled glass, used in the production process.

The Company's worldwide operations, in addition to other companies within the industry, are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. The Company strives to abide by and uphold such laws and regulations.

Glass Recycling and Bottle Deposits

The Company is an important contributor to recycling efforts worldwide and is among the largest users of recycled glass containers. If sufficient high-quality recycled glass were available on a consistent basis, the Company has the technology to make glass containers containing a high proportion of recycled glass. Using recycled glass in the manufacturing process reduces energy costs and impacts the operating life and efficiency of the glass melting furnaces.

In the U.S., Canada, Europe and elsewhere, government authorities have adopted or are considering legal requirements that would mandate certain recycling rates, the use of recycled materials, or limitations on or preferences for certain types of packaging. The Company believes that governments worldwide will continue to develop and enact legal requirements guiding customer and end-consumer packaging choices.

Sales of beverage containers are affected by governmental regulation of packaging, including deposit laws and extended producer responsibility regulations. As of December 31, 2018, there were a number of U.S. states, Canadian provinces and territories, European countries and Australian states with some form of incentive for consumer returns of glass bottles in their law. The structure and enforcement of such laws and regulations can impact the sales of beverage containers in a given jurisdiction. Such laws and regulations also impact the availability of post-consumer recycled glass for the Company to use in container production.

A number of states and provinces have recently considered or are now considering laws and regulations to encourage curbside, deposit and on premise glass recycling. Although there is no clear trend in the direction of these state and provincial laws and proposals, the Company believes that states and provinces, as well as municipalities within those jurisdictions, will continue to adopt recycling laws, which will impact supplies of recycled glass. As a large user of recycled glass for making new glass containers, the Company has an interest in laws and regulations impacting supplies of such material in its markets.

Air Emissions

In Europe, the European Union Emissions Trading Scheme ("EUETS") is in effect to facilitate emissions reduction. The Company's manufacturing facilities which operate in EU countries must restrict the volume of their CO_2 emissions to the level of their individually allocated emissions allowances as set by country regulators. If the actual level of emissions for any facility exceeds its allocated allowance, additional allowances can be bought to cover deficits; conversely, if the actual level of emissions for any facility is less than its allocation, the excess allowances can be sold. Should the regulators significantly restrict the number of emissions allowances available, it could have a material effect on the Company's results.

In the Americas, the U.S. and Canada have engaged in significant legislative and regulatory activities relating to greenhouse gas ("GHG") emissions for years at the federal, state and provincial levels of government. In the U.S., the Environmental Protection Agency (the "EPA") regulates emissions of GHG air pollutants under the Clean Air Act, which grants the EPA authority to establish limits for certain air pollutants and to require compliance, levy penalties and bring civil judicial action against violators. The EPA's GHG regulations continue to evolve, as the structure and scope of the regulations are often the subject of litigation and federal legislative activity. New GHG regulations could have a significant long-term impact on the Company's operations that are affected by such regulations. The state of California in the U.S. the Canadian federal government and the province of Quebec have adopted cap-and-trade legislation aimed at reducing GHG emissions. In Brazil, the government passed a law in 2009 requiring companies to reduce the level of GHG emissions by the year 2020. In other South American countries, national and local governments are also considering potential regulations to reduce GHG emissions.

In Asia Pacific, the *National Greenhouse and Energy Reporting Act 2007* commenced on July 1, 2008 in Australia and established a mandatory reporting system for corporate GHG emissions and energy production and consumption. In July 2014, the Australian government introduced the Emissions Reduction Fund ("ERF") which comprises an element to credit emissions reductions, a fund to purchase emissions reductions and a safeguard mechanism. The ERF purchases the lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions, while the safeguard mechanism (effective from July 1, 2016) ensures that emissions reductions paid for through the crediting and purchasing elements of the ERF are not offset by significant increases in emissions above business-as-usual levels elsewhere in the economy. An emissions trading scheme has been in effect in New Zealand since 2008.

The Company is unable to predict what environmental legal requirements may be adopted in the future. However, the Company continually monitors its operations in relation to environmental impacts and invests in environmentally friendly and emissions-reducing projects. As such, the Company has made significant expenditures for environmental improvements at certain of its facilities over the last several years; however, these expenditures did not have a material adverse effect on the Company's results of operations or cash flows. The Company is unable to predict the impact of future environmental legal requirements on its results of operations or cash flows.

Employees

The Company's worldwide operations employed approximately 26,500 persons as of December 31, 2018. Approximately 68% of employees in the U.S. and Canada are hourly workers covered by collective bargaining agreements. The principal collective bargaining agreement, which at December 31, 2018, covered approximately 77% of the Company's union-affiliated employees in the U.S. and Canada, will expire on March 31, 2019. Approximately 71% of employees in South America and Mexico are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in South America, Mexico, Australia and New Zealand have varying terms and expiration dates. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. The Company considers its employee relations to be good and does not anticipate any material work stoppages in the near term.

Available Information

The Company's website is www.o-i.com. The Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 can be obtained from this site at no cost. The Securities and Exchange Commission ("SEC") maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

The Company's Corporate Governance Guidelines, Global Code of Business Conduct and Ethics and the charters of the Audit, Compensation, Nominating/Corporate Governance and Risk Oversight Committees are also available on the "Investors" section of the Company's website. Copies of these documents are available in print to share owners upon request, addressed to the Corporate Secretary at the address above. The information on the Company's website is not part of this or any other report that the Company files with, or furnishes to, the SEC.

Executive Officers of the Registrant

In the following table, the Company sets forth certain information regarding those persons currently serving as executive officers of Owens-Illinois, Inc. as of February 14, 2019.

Name and Age	Position
Andres A. Lopez (56)	Chief Executive Officer since January 2016; President, Glass Containers and Chief Operating Officer 2015; Vice President and President of O-I Americas 2014-2015; Vice President and President of O-I South America 2009-2014; Vice President of Global Manufacturing and Engineering 2006 - 2009.
Miguel I. Alvarez (54)	President, O-I Americas since November 2017; President, O-I Latin America 2014 - 2017; President, O-I Brazil 2010 – 2014. Previously held leadership positions in Chile, Argentina and Ecuador for Belcorp, a leading global beauty products company 2005 – 2010.
Arnaud Aujouannet (49) . . .	Senior Vice President and Chief Sales and Marketing Officer since October 2017; Vice President of Sales and Marketing, Europe 2015 – 2017. Previously Commercial Associate Director, Oral Care Europe for Procter & Gamble, a multi-national consumer goods company 2012 - 2015; Global Sales & Marketing Chief Sales & Marketing Officer, Swiss Precision Diagnostic/Clearblue (a Procter & Gamble Joint Venture) 2009 – 2012.
Jan A. Bertsch (62)	Chief Financial Officer and Senior Vice President since November 2015. Previously Executive Vice President and Chief Financial Officer for Sigma-Aldrich, a life science and technology company, 2012 - 2015. Vice President, Controller and Principal Accounting Officer at BorgWarner 2011 – 2012; Vice President and Treasurer, 2009 - 2011.
Tim M. Connors (44)	President, O-I Asia Pacific since June 2015; General Manager of O-I Australia 2013 – 2015; Vice President of Finance, Asia Pacific 2011 – 2013; Vice President of Strategic Planning and Business Development, North America 2010 – 2011.
Giancarlo Currarino (42) . .	Senior Vice President and Chief Technology and Supply Chain Officer since December 2016; Vice President and Chief Technology Officer 2012 - 2016; Vice President of Global Engineering 2011 – 2012.
John A. Haudrich (51).	Senior Vice President and Chief Strategy and Integration Officer since November 2015; Vice President and Acting Chief Financial Officer 2015; Vice President Finance and Corporate Controller 2011 – 2015; Vice President of Investor Relations 2009 – 2011.
Vitaliano Torno (60)	President, O-I Europe since January 2016; Managing Director, O-I Europe 2015; Vice President, European countries 2013 – 2015; Vice President, Marketing and sales, Europe 2010 - 2013.
MaryBeth Wilkinson (46). .	Senior Vice President and General Counsel since January 2017; Corporate Secretary since 2016; Associate General Counsel 2013 – 2016; Assistant General Counsel 2010 – 2012. Previously Partner with a global law firm 2007 – 2010.

ITEM 1A. RISK FACTORS

Asbestos-Related Liability—The Company has made, and will continue to make, substantial payments to resolve claims of persons alleging exposure to asbestos-containing products and may need to record additional charges in the future for estimated asbestos-related costs. These substantial payments have affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium silicate based pipe and block insulation material containing asbestos. The Company exited the insulation business in April 1958. The Company receives claims from individuals alleging bodily injury and death as a result of exposure to asbestos from this product ("Asbestos Claims"). Some Asbestos Claims are brought as personal injury lawsuits that typically allege various theories of liability, including negligence, gross negligence and strict liability and seek compensatory and, in some cases, punitive damages. Predominantly, however, Asbestos Claims are presented to the Company under administrative claims-handling agreements, which the Company has in place with many plaintiffs' counsel throughout the country ("Administrative Claims").

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $5.0 billion through 2018, before insurance recoveries, for its asbestos-related liability. The Company's ability to estimate its liability has been significantly affected by, among other factors, the volatility of asbestos related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the defendants that are now sued in the litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

For many years, the Company has conducted an annual comprehensive legal review of its asbestos-related liabilities and costs in connection with finalizing its annual results of operations. In May 2016, the Company revised its method for estimating its asbestos-related liabilities in connection with finalizing and reporting its restated results of operations for the three years ended December 31, 2015. The revised method estimates the total future costs for the Company's asbestos-related liability. Under this method, the Company provides historical Asbestos Claims' data to a third party with expertise in determining the impact of disease incidence and mortality on future filing trends to develop information to assist the Company in estimating the total number of future Asbestos Claims likely to be asserted against the Company. The Company uses this estimate, along with an estimation of disposition costs and related legal costs, as inputs to develop its best estimate of its total probable liability. The revised methodology has led the Company to conclude that an asbestos-related liability of $602 million was required as of December 31, 2018.

The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty. As part of its future annual comprehensive legal reviews, the Company will review its estimate of its total asbestos-related liability, unless significant changes in trends or new developments warrant an earlier review. Such reviews may result in significant adjustments to the liability accrued at the time of the review.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos containing insulation prior to its exit from that business in 1958;

b) Asbestos Claims will continue to be resolved primarily under the Company's administrative claims agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future Asbestos Claims.

The ultimate amount of distributions that may be required to fund the Company's total asbestos-related payments cannot be estimated with certainty. Asbestos related payments continue to be substantial and the continued use of significant amounts of cash for asbestos related costs has affected and may continue to affect the Company's cost of borrowing, its ability to pursue global or domestic acquisitions, its ability to reinvest in its operations, and its ability to pay dividends.

Substantial Leverage—The Company's indebtedness could adversely affect the Company's financial health.

The Company has a significant amount of debt. As of December 31, 2018 and December 31, 2017, the Company had approximately $5.3 billion of total debt outstanding.

The Company's indebtedness could:

- Increase vulnerability to general adverse economic and industry conditions;
- Increase vulnerability to interest rate increases for the portion of the debt under the secured credit agreement;
- Require the Company to dedicate a substantial portion of cash flow from operations to payments on indebtedness, thereby reducing the availability of cash flow to fund working capital, capital expenditures, acquisitions, share repurchases, development efforts and other general corporate purposes;
- Limit flexibility in planning for, or reacting to, changes in the Company's business and the rigid packaging market;
- Place the Company at a competitive disadvantage relative to its competitors that have less debt; and
- Limit, along with the financial and other restrictive covenants in the documents governing indebtedness, among other things, the Company's ability to borrow additional funds.

Ability to Service Debt—To service its indebtedness, the Company will require a significant amount of cash. The Company's ability to generate cash and refinance certain indebtedness depends on many factors beyond its control.

The Company's ability to make payments on, to refinance its indebtedness and to fund working capital, capital expenditures, acquisitions, development efforts and other general corporate purposes depends on its ability to generate cash in the future. The Company has no assurance that it will generate sufficient cash flow from operations, or that future borrowings will be available under the secured credit agreement, in an amount sufficient to enable the Company to pay its indebtedness, or to fund other liquidity needs. If short-term interest rates increase, the Company's debt service cost will increase because some of its debt is subject to short-term variable interest rates. At December 31, 2018, the Company's debt, including interest rate swaps, that is subject to variable interest rates represented approximately 33% of total debt.

Further, in July 2017, the Financial Conduct Authority (the authority that regulates LIBOR) announced it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. The Alternative Reference Rates Committee ("ARRC") has proposed that the Secured Overnight Financing Rate ("SOFR") is the rate that represents best practice as the alternative to USD-LIBOR for use in debt instruments, derivatives and other financial contracts that are currently indexed to USD-LIBOR. ARRC has proposed a paced market transition plan to SOFR from USD-LIBOR and organizations are currently working on industry wide and company specific transition plans as it relates to derivatives, debt and cash markets exposed to USD-LIBOR. Approximately 20% of the Company's long-term indebtedness are indexed to USD-LIBOR and it is monitoring this activity and evaluating the related risks. Although an alternative to LIBOR has been contemplated in the Company's bank credit agreement, it is unclear as to the new method of calculating LIBOR that may evolve and this new method could adversely affect the Company's interest rates on its indebtedness.

The Company may need to refinance all or a portion of its indebtedness on or before maturity. If the Company is unable to generate sufficient cash flow and is unable to refinance or extend outstanding borrowings on commercially reasonable terms or at all, it may have to take one or more of the following actions:

- Reduce or delay capital expenditures planned for replacements, improvements and expansions;
- Sell assets;
- Restructure debt; and/or
- Obtain additional debt or equity financing.

The Company can provide no assurance that it could affect or implement any of these alternatives on satisfactory terms, if at all.

Debt Restrictions—The Company may not be able to finance future needs or adapt its business plans to changes because of restrictions placed on it by the secured credit agreement and the indentures and instruments governing other indebtedness.

The secured credit agreement, the indentures governing the senior debentures and notes, and certain of the agreements governing other indebtedness contain affirmative and negative covenants that limit the ability of the Company to take certain actions. For example, these indentures restrict, among other things, the ability of the Company and its restricted subsidiaries to borrow money, pay dividends on, or redeem or repurchase its stock, make certain investments, create liens, enter into certain transactions with affiliates and sell certain assets or merge with or into other companies. These restrictions could adversely affect the Company's ability to operate its businesses and may limit its ability to take advantage of potential business opportunities as they arise.

Failure to comply with these or other covenants and restrictions contained in the secured credit agreement, the indentures or agreements governing other indebtedness could result in a default under those agreements, and the debt under those agreements, together with accrued interest, could then be declared immediately due and payable. If a default occurs under the secured credit agreement, the Company could no longer request borrowings under the secured credit agreement, and the lenders could cause all of the outstanding debt obligations under such secured credit agreement to become due and payable, which would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. A default under the secured credit agreement, indentures or agreements governing other indebtedness could also lead to an acceleration of debt under other debt instruments that contain cross-acceleration or cross-default provisions.

Foreign Currency Exchange Rates—The Company is subject to the effects of fluctuations in foreign currency exchange rates, which could adversely impact the Company's financial results.

The Company's reporting currency is the U.S. dollar. A significant portion of the Company's net sales, costs, assets and liabilities are denominated in currencies other than the U.S. dollar, primarily the Euro, Brazilian real, Colombian peso, Mexican peso and Australian dollar. In its consolidated financial statements, the Company remeasures transactions denominated in a currency other than the functional currency of the reporting entity (e.g. soda ash purchases) and translates local currency financial results into U.S. dollars based on the exchange rates prevailing during the reporting period. During times of a strengthening U.S. dollar, the reported revenues and earnings of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. This could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

International Operations—The Company is subject to risks associated with operating in foreign countries.

The Company operates manufacturing and other facilities throughout the world. Net sales from non-U.S. operations totaled approximately $4.9 billion, representing approximately 71% of the Company's net sales for the

year ended December 31, 2018. As a result of its non-U.S. operations, the Company is subject to risks associated with operating in foreign countries, including:

- Political, social and economic instability;
- War, civil disturbance or acts of terrorism;
- Taking of property by nationalization or expropriation without fair compensation;
- Changes in governmental policies and regulations;
- Devaluations and fluctuations in currency exchange rates;
- Fluctuations in currency exchange rates;
- Imposition of limitations on conversions of foreign currencies into dollars or remittance of dividends and other payments by foreign subsidiaries;
- Imposition or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries;
- Hyperinflation in certain foreign countries;
- Impositions or increase of investment and other restrictions or requirements by foreign governments;
- Loss or non-renewal of treaties or other agreements with foreign tax authorities;
- Changes in tax laws, or the interpretation thereof, including those affecting foreign tax credits or tax deductions relating to our non-U.S. earnings or operations; and
- Complying with the U.S. Foreign Corrupt Practices Act, which prohibits companies and their intermediaries from engaging in bribery or other prohibited payments to foreign officials for the purposes of obtaining or retaining business or gaining an unfair business advantage and requires companies to maintain accurate books and records and effective internal controls.

The risks associated with operating in foreign countries may have a material adverse effect on operations.

Brexit—The Company's business may be impacted by the United Kingdom's proposed exit from the European Union.

In 2016, the United Kingdom held a referendum in which voters approved an exit from the European Union, commonly referred to as "Brexit." As a result of the referendum, the United Kingdom parliament voted in March 2017 to commence the United Kingdom's official withdrawal process from the European Union. Negotiations between the United Kingdom and the European Union remain ongoing and are complex, and there can be no assurance regarding the terms, timing or consummation of any resulting agreements. The United Kingdom is due to leave the European Union automatically on March 29, 2019, unless the negotiations are extended by unanimous consent of the European Council.

The initial Brexit vote in 2016 caused significant volatility in currency exchange rates and continued uncertainty regarding Brexit may result in future exchange rate volatility. Such volatility, and any adverse effect that Brexit has on the currency regimes to which the Company is subject, could adversely affect the Company's sales volumes and costs. The Company has two manufacturing facilities in the United Kingdom. Further, the uncertainty surrounding the Brexit negotiations continues to create economic uncertainty, which may cause the Company's customers to closely monitor their costs, terminate or reduce the scope of existing contracts, decrease or postpone currently planned contracts, or negotiate for more favorable deal terms, each of which may have a negative impact on the Company's financial condition, results of operations and cash flows.

Competition—The Company faces intense competition from other glass container producers, as well as from makers of alternative forms of packaging. Competitive pressures could adversely affect the Company's financial health.

The Company is subject to significant competition from other glass container producers, as well as from makers of alternative forms of packaging, such as aluminum cans and plastic containers. The Company also competes with manufacturers of non-rigid packaging alternatives, including flexible pouches and aseptic cartons, in serving the packaging needs of certain end-use markets, including juice customers. The Company competes with each rigid packaging competitor on the basis of price, quality, service and the marketing and functional attributes of the container. Advantages or disadvantages in any of these competitive factors may be sufficient to cause the customer to consider changing suppliers and/or using an alternative form of packaging. The adverse effects of consumer purchasing decisions may be more significant in periods of economic downturn and may lead to longer-term reductions in consumer spending on glass-job act packaged products.

Pressures from competitors and producers of alternative forms of packaging have resulted in excess capacity in certain countries in the past and have led to capacity adjustments and significant pricing pressures in the rigid packaging market. These pressures could have a material adverse effect on the Company's operations.

Lower Demand Levels—Changes in consumer preferences may have a material adverse effect on the Company's financial results.

Changes in consumer preferences for the food and beverages they consume can reduce demand for the Company's products. Because many of the Company's products are used to package consumer goods, the Company's sales and profitability could be negatively impacted by changes in consumer preferences for those products. Examples of changes in consumer preferences include, but are not limited to, lower sales of major domestic beer brands and shifts from beer to wine or spirits that results in the use of fewer glass containers. In periods of lower demand, the Company's sales and production levels may decrease causing a material adverse effect on the Company's profitability.

Energy Costs—Higher energy costs worldwide and interrupted power supplies may have a material adverse effect on operations.

Electrical power, natural gas, and fuel oil are vital to the Company's operations as it relies on a continuous energy supply to conduct its business. Depending on the location and mix of energy sources, energy accounts for 10% to 20% of total production costs. Substantial increases and volatility in energy costs could cause the Company to experience a significant increase in operating costs, which may have a material adverse effect on operations.

Global Economic Environment—The global credit, financial and economic environment could have a material adverse effect on operations and financial condition.

The global credit, financial and economic environment could have a material adverse effect on operations, including the following:

- Downturns in the business or financial condition of any of the Company's customers or suppliers could result in a loss of revenues or a disruption in the supply of raw materials;
- Tightening of credit in financial markets could reduce the Company's ability, as well as the ability of the Company's customers and suppliers, to obtain future financing;
- Volatile market performance could affect the fair value of the Company's pension assets and liabilities, potentially requiring the Company to make significant additional contributions to its pension plans to maintain prescribed funding levels;
- The deterioration of any of the lending parties under the Company's revolving credit facility or the creditworthiness of the counterparties to the Company's derivative transactions could result in such parties' failure to satisfy their obligations under their arrangements with the Company; and

- A significant weakening of the Company's financial position or results of operations could result in noncompliance with the covenants under the Company's indebtedness.

Business Integration Risks—The Company may not be able to effectively integrate additional businesses it acquires in the future.

The Company may consider strategic transactions, including acquisitions that will complement, strengthen and enhance growth in its worldwide glass operations. The Company evaluates opportunities on a preliminary basis from time to time, but these transactions may not advance beyond the preliminary stages or be completed. Such acquisitions are subject to various risks and uncertainties, including:

- The inability to integrate effectively the operations, products, technologies and personnel of the acquired companies (some of which may be located in diverse geographic regions) and achieve expected synergies;
- The potential disruption of existing business and diversion of management's attention from day-to-day operations;
- The inability to maintain uniform standards, controls, procedures and policies;
- The need or obligation to divest portions of the acquired companies;
- The potential impairment of relationships with customers;
- The potential failure to identify material problems and liabilities during due diligence review of acquisition targets;
- The potential failure to obtain sufficient indemnification rights to fully offset possible liabilities associated with acquired businesses; and
- The challenges associated with operating in new geographic regions.

In addition, the Company cannot make assurances that the integration and consolidation of newly acquired businesses will achieve any anticipated cost savings and operating synergies.

Customer Consolidation—The continuing consolidation of the Company's customer base may intensify pricing pressures and have a material adverse effect on operations.

Many of the Company's largest customers have acquired companies with similar or complementary product lines. This consolidation has increased the concentration of the Company's business with its largest customers. In many cases, such consolidation has been accompanied by pressure from customers for lower prices, reflecting the increase in the total volume of products purchased or the elimination of a price differential between the acquiring customer and the company acquired. Increased pricing pressures from the Company's customers may have a material adverse effect on operations.

Operational Disruptions—Profitability could be affected by unanticipated operational disruptions.

The Company's glass container manufacturing process is asset intensive and includes the use of large furnaces and machines. The Company periodically experiences unanticipated disruptions to its assets and these events can have an adverse effect on its business operations and profitability. The impacts of these operational disruptions include, but are not limited to, higher maintenance, production changeover and shipping costs, higher capital spending, as well as lower absorption of fixed costs during periods of extended downtime. The Company maintains insurance policies in amounts and with coverage and deductibles that are reasonable and in line with industry standards; however, this insurance coverage may not be adequate to protect the Company from all liabilities and expenses that may arise.

Seasonality—Profitability could be affected by varied seasonal demands.

Due principally to the seasonal nature of the consumption of beer and other beverages, for which demand is stronger during the summer months, sales of the Company's products have varied and are expected to vary by quarter. Shipments in the U.S. and Europe are typically greater in the second half of the year, while shipments in the Asia Pacific region are typically greater in the first and fourth quarters of the year, and shipments in South America are typically greater in the last three quarters of the year. Unseasonably cool weather during peak demand periods can reduce demand for certain beverages packaged in the Company's containers.

Raw Materials—Profitability could be affected by the availability and cost of raw materials.

The raw materials that the Company uses have historically been available in adequate supply from multiple sources. For certain raw materials, however, there may be temporary shortages due to weather or other factors, including disruptions in supply caused by transportation or production delays. These shortages, as well as material volatility in the cost of any of the principal raw materials that the Company uses, may have a material adverse effect on operations.

In addition, the Company purchases its soda ash raw materials in U.S. dollars in South America, Mexico and Asia Pacific. Given fluctuations in foreign currency exchange rates, this may cause these regions to experience inflationary or deflationary impacts to their raw material costs.

Environmental Risks—The Company is subject to various environmental legal requirements and may be subject to new legal requirements in the future. These requirements may have a material adverse effect on operations.

The Company's operations and properties are subject to extensive laws, ordinances, regulations and other legal requirements relating to environmental protection, including legal requirements governing investigation and clean-up of contaminated properties as well as water discharges, air emissions, waste management and workplace health and safety. Such legal requirements frequently change and vary among jurisdictions. The Company's operations and properties must comply with these legal requirements. These requirements may have a material adverse effect on operations.

The Company has incurred, and expects to incur, costs for its operations to comply with environmental legal requirements, and these costs could increase in the future. Many environmental legal requirements provide for substantial fines, orders (including orders to cease operations), and criminal sanctions for violations. These legal requirements may apply to conditions at properties that the Company presently or formerly owned or operated, as well as at other properties for which the Company may be responsible, including those at which wastes attributable to the Company were disposed. A significant order or judgment against the Company, the loss of a significant permit or license or the imposition of a significant fine may have a material adverse effect on operations.

A number of governmental authorities have enacted, or are considering enacting, legal requirements that would mandate certain rates of recycling, the use of recycled materials and/or limitations on certain kinds of packaging materials. In addition, some companies with packaging needs have responded to such developments and/or perceived environmental concerns of consumers by using containers made in whole or in part of recycled materials. Such developments may reduce the demand for some of the Company's products and/or increase the Company's costs, which may have a material adverse effect on operations.

Governmental authorities have also enacted, or are considering enacting, legal requirements restricting the volume of GHG emissions that manufacturing facilities can produce with penalties for companies that do not comply. A reduction in the quantity of permitted GHG emissions under existing rules, or the introduction of new GHG emissions rules, in jurisdictions where the Company operates, could have a material effect on the its results. The Company is not able to predict what environmental legal requirements may be adopted in the future nor the impact such future environmental legal requirements may have on its results of operations or cash flows.

Taxes—Potential tax law and U.S. trade policy changes could adversely affect net income and cash flow.

The Company is subject to income tax in the numerous jurisdictions in which it operates. Increases in income tax rates or other tax law changes, as well as ongoing audits by domestic and international authorities, could reduce the Company's net income and cash flow from affected jurisdictions. In particular, additional guidance is likely to be issued providing further clarification on the application of the U.S. Tax Cuts and Jobs Act, which was signed into law on December 22, 2017, and proposed regulations that have subsequently been issued with respect to the provisions enacted pursuant to such law. Further, it is reasonable to expect that global taxing authorities will be reviewing current legislation for potential modifications in reaction to the implementation of the U.S. legislation. This additional guidance, along with the potential for additional global tax legislation changes, could have a material adverse impact on net income and cash flow by impacting significant deductions or income inclusions. In addition, the Company's products are subject to import and excise duties and/or sales or value-added taxes in many jurisdictions in which it operates. Increases in these indirect taxes could affect the affordability of the Company's products and, therefore, reduce demand.

In addition, existing free trade laws and regulations, such as the North American Free Trade Agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where the Company manufactures products, such as Mexico, could have a material adverse effect on its business and financial results. Also, a government's adoption of "buy national" policies or retaliation by another government against such policies may affect the prices of and demand for the Company's products and could have a negative impact on the Company's results of operations.

Many international legislative and regulatory bodies have proposed legislation and begun investigations of the tax practices of multinational companies and, in the European Union (EU), the tax policies of certain EU member states. One of these efforts has been led by the OECD, an international association of 36 countries including the United States, which has finalized recommendations to revise corporate tax, transfer pricing, and tax treaty provisions in member countries. Since 2013, the European Commission (EC) has been investigating tax rulings granted by tax authorities in a number of EU member states with respect to specific multinational corporations to determine whether such rulings comply with EU rules on state aid, as well as more recent investigations of the tax regimes of certain EU member states. If the EC determines that a tax ruling or tax regime violates the state aid restrictions, the tax authorities of the affected EU member state may be required to collect back taxes for the period of time covered by the ruling. Due to the large scale of the Company's U.S. and international business activities, many of these proposed changes to the taxation of the Company's activities, if enacted, could increase the Company's worldwide effective tax rate and harm results of operations.

Labor Relations—Some of the Company's employees are unionized or represented by workers' councils.

The Company is party to a number of collective bargaining agreements with labor unions which at December 31, 2018, covered approximately 68% of the Company's employees in the U.S. and Canada. The principal collective bargaining agreement, which at December 31, 2018 covered approximately 77% of the Company's union-affiliated employees in U.S. and Canada, will expire on March 31, 2019. Approximately 71% of employees in South America and Mexico are covered by collective bargaining agreements. The majority of the hourly workers in Australia and New Zealand are also covered by collective bargaining agreements. The collective bargaining agreements in South America, Mexico, Australia and New Zealand have varying terms and expiration dates. Upon the expiration of any collective bargaining agreement, if the Company is unable to negotiate acceptable contracts with labor unions, it could result in strikes by the affected workers and increased operating costs as a result of higher wages or benefits paid to union members. In Europe, a large number of the Company's employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws of the U.S. Such employment rights require the Company to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of the Company's employees in Europe are represented by workers' councils that must approve any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure the Company's workforce. In addition, if the Company's employees were to engage in a

strike or other work stoppage, the Company could experience a significant disruption of operations and/or higher ongoing labor costs, which may have a material adverse effect on operations.

Key Management and Personnel Retention—Failure to retain key management and personnel could have a material adverse effect on operations.

The Company believes that its future success depends, in part, on its experienced management team and certain key personnel. The loss of certain key management and personnel could limit the Company's ability to implement its business plans and meet its objectives.

Joint Ventures—Failure by joint venture partners to observe their obligations could have a material adverse effect on operations.

A portion of the Company's operations is conducted through joint ventures, including joint ventures in the Americas, Europe, and Asia Pacific segments and in retained corporate costs and other. If the Company's joint venture partners do not observe their obligations or are unable to commit additional capital to the joint ventures, it is possible that the affected joint venture would not be able to operate in accordance with its business plans, which could have a material adverse effect on the Company's financial condition and results of operations.

Information Technology—Failure or disruption of the Company's information technology, or those of third parties, could have a material adverse effect on its business and the results of operations.

The Company employs information technology ("IT") systems and networks to support the business and relies on them to operate its plants, to communicate with its employees, customers and suppliers, to store sensitive business information and intellectual property, and to report financial and operating results. As with any IT system, the Company's IT system, or any third party's system on which the Company relies, could fail on its own accord or may be vulnerable to a variety of interruptions due to events, including, but not limited to, natural disasters, terrorist attacks, power outages, fire, sabotage, equipment failures, cybersecurity vulnerabilities, and cyber-related attacks or computer crimes, any of which could have a material adverse effect on the Company's financial condition, results of operations and cash flows.

Cybersecurity and Data Privacy - Security breaches could disrupt the Company's business operations, result in the loss of critical and confidential information, and have a material adverse effect on its business, reputation and results of operations.

The Company has been subject to cyberattacks in the past, including phishing and malware incidents, and although no such attack has had a material adverse effect on its business, this may not be the case with future attacks. As the prevalence of cyberattacks continues to increase, the Company's IT systems, or those of third parties, may be subject to increased security threats and the Company may incur additional costs to upgrade and maintain its security measures in place to prevent and detect such threats. The Company's security measures may be unable to prevent certain security breaches, and any such breaches could result in transactional errors, business disruptions, loss of or damage to intellectual property, loss of customers and business opportunities, unauthorized access to or disclosure of confidential or personal information (which could cause a breach of applicable data protection legislation), regulatory fines, penalties or intervention, reputational damage, reimbursement or other compensatory costs, and additional compliance costs, any of which could have a material adverse effect on the Company's financial condition, results of operations and cash flows. Any resulting costs or losses may not be covered by, or may exceed the coverage limits of, the Company's cyber insurance.

The Company is increasingly reliant on third parties to provide software, support and management with respect to its IT systems. The security and privacy measures the Company's vendors implement may not be sufficient to prevent and detect cyberattacks that could have a material adverse effect on the Company's financial condition, results of operations and cash flows. While the Company's IT vendor agreements typically contain provisions that seek to eliminate or limit the Company's exposure to liability for damages from a cyberattack, the Company cannot assure that such provisions will withstand legal challenges or cover all or any such damages. If the Company's business continuity and/or disaster recovery plans do not effectively and timely resolve issues

resulting from a cyberattack, the Company may suffer material adverse effects on its financial condition, results of operations and cash flows.

In addition, new global privacy rules are being enacted and existing ones are being updated and strengthened. In May 2018, the European Union (EU) implemented the General Data Protection Regulation (GDPR) that stipulates data protection and privacy regulations for all individuals within the EU and the European Economic Area (EEA). The Company has significant operations in the EEA and is subject to the GDPR. The GDPR imposes several stringent requirements for controllers and processors of personal data and could make it more difficult and/or more costly for the Company to use and share personal data. Although the Company takes reasonable efforts to comply with all applicable laws and regulations, there can be no assurance that the Company will not be subject to regulatory action, including fines, in the event of an incident. To comply with the new data protection rules imposed by GDPR and other applicable data protection legislation, the Company may be required to put in place additional mechanisms which could adversely affect its financial condition, results of operations and cash flows.

Accounting Estimates—The Company's financial results are based upon estimates and assumptions that may differ from actual results.

In preparing the Company's consolidated financial statements in accordance with U.S. generally accepted accounting principles, several estimates and assumptions are made that affect the accounting for and recognition of assets, liabilities, revenues and expenses. These estimates and assumptions must be made due to certain information used in the preparation of the Company's financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that accounting for long-lived assets, pension benefit plans, contingencies and litigation, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements. Actual results for all estimates could differ materially from the estimates and assumptions that the Company uses, which could have a material adverse effect on the Company's financial condition and results of operations.

Accounting Standards—The adoption of new accounting standards or interpretations could adversely impact the Company's financial results.

New accounting standards or pronouncements could adversely affect the Company's operating results or cause unanticipated fluctuations in its results in future periods. The accounting rules and regulations that the Company must comply with are complex and continually changing. In addition, many companies' accounting policies are being subjected to heightened scrutiny by regulators and the public. The Company cannot predict the impact of future changes to accounting principles or its accounting policies on its financial statements going forward. In February 2016, the Financial Accounting Standards Board issued Accounting Standards Update 2016-02, "Leases", which requires all operating leases with lease terms longer than twelve months be recorded as lease assets and lease liabilities on the Company's consolidated balance sheets. Implementing changes required by this new standard will require a significant expenditure of time, attention and resources, including significant upgrades to and investments in the Company's lease administration systems and other accounting systems, and will materially impact the Company's financial statements as the Company has a significant number of leases.

Goodwill—A significant write down of goodwill would have a material adverse effect on the Company's reported results of operations and net worth.

Goodwill at December 31, 2018 totaled $2.5 billion. The Company evaluates goodwill annually (or more frequently if impairment indicators arise) for impairment using the required business valuation methods. These methods include the use of a weighted average cost of capital to calculate the present value of the expected future cash flows of the Company's reporting units. Future changes in the cost of capital, expected cash flows, or other factors may cause the Company's goodwill to be impaired, resulting in a non-cash charge against results of operations to write down goodwill for the amount of the impairment. If a significant write down is required, the charge would have a material adverse effect on the Company's reported results of operations and net worth.

Pension Funding—An increase in the underfunded status of the Company's pension plans could adversely impact the Company's operations, financial condition and liquidity.

The Company contributed $34 million, $31 million and $38 million to its defined benefit pension plans in 2018, 2017, and 2016, respectively. The amount the Company is required to contribute to these plans is determined by the laws and regulations governing each plan, and is generally related to the funded status of the plans. A deterioration in the value of the plans' investments or a decrease in the discount rate used to calculate plan liabilities generally would increase the underfunded status of the plans. An increase in the underfunded status of the plans could result in an increase in the Company's obligation to make contributions to the plans, thereby reducing the cash available for working capital and other corporate uses, and may have an adverse impact on the Company's operations, financial condition and liquidity.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The principal manufacturing facilities and other material important physical properties of the Company at December 31, 2018 are listed below. All properties are glass container plants and are owned in fee, except where otherwise noted.

Americas Operations

Argentina
- Rosario

Bolivia
- Cochabamba

Brazil
- Recife
- Rio de Janeiro
- Sao Paulo

Canada
- Brampton, Ontario
- Montreal, Quebec

Colombia
- Buga (tableware)
- Envigado
- Soacha
- Zipaquira

Ecuador
- Guayaquil

Mexico
- Guadalajara
- Los Reyes
- Monterrey
- Queretaro
- Toluca

Peru
- Callao
- Lurin(1)

United States
- Auburn, NY
- Brockway, PA
- Crenshaw, PA
- Danville, VA
- Kalama, WA(1)
- Lapel, IN
- Los Angeles, CA
- Muskogee, OK
- Portland, OR
- Streator, IL
- Toano, VA
- Tracy, CA
- Waco, TX
- Windsor, CO
- Winston-Salem, NC
- Zanesville, OH

Asia Pacific Operations

Australia

Adelaide	Melbourne
Brisbane	Sydney

China

Tianjin	Zhaoqing

Indonesia

Jakarta

New Zealand

Auckland

European Operations

Czech Republic

Dubi	Nove Sedlo

Estonia

Jarvakandi

France

Beziers	Vayres
Gironcourt	Veauche
Labegude	Vergeze
Puy-Guillaume	Wingles
Reims	

Germany

Bernsdorf	Rinteln
Holzminden	

Hungary

Oroshaza

Italy

Aprilia	Origgio
Asti	Ottaviano
Bari	San Gemini
Marsala	San Polo
Mezzocorona	Villotta

The Netherlands

Leerdam	Maastricht

Poland

Jaroslaw	Poznan

Spain

Barcelona(1)	Sevilla

United Kingdom
Alloa

Harlow

Other Operations

Engineering Support Centers
Brockway, Pennsylvania
Jaroslaw, Poland
Lurin, Peru
Melbourne, Australia(1)
Perrysburg, Ohio
Villeurbanne, France

Shared Service Centers
Medellin, Colombia
Perrysburg, Ohio
Poznan, Poland(1)

Distribution Center
Laredo, TX(1)

Corporate Facilities

Melbourne, Australia(1)
Miami, Florida(1)
Perrysburg, Ohio(1)
Vufflens-la-Ville, Switzerland(1)

(1) This facility is leased in whole or in part.

The Company believes that its facilities are well maintained and currently adequate for its planned production requirements over the next three to five years.

ITEM 3. LEGAL PROCEEDINGS

For information on legal proceedings, see Note 13 to the Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON STOCK AND RELATED SHARE OWNER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Owens-Illinois' common stock is listed on the New York Stock Exchange with the symbol OI. The number of share owners of record on December 31, 2018 was 970. Approximately 100% of the outstanding shares were registered in the name of Depository Trust Company, or CEDE & Co., which held such shares on behalf of a number of brokerage firms, banks, and other financial institutions. The shares attributed to these financial institutions, in turn, represented the interests of more than 38,015 unidentified beneficial owners.

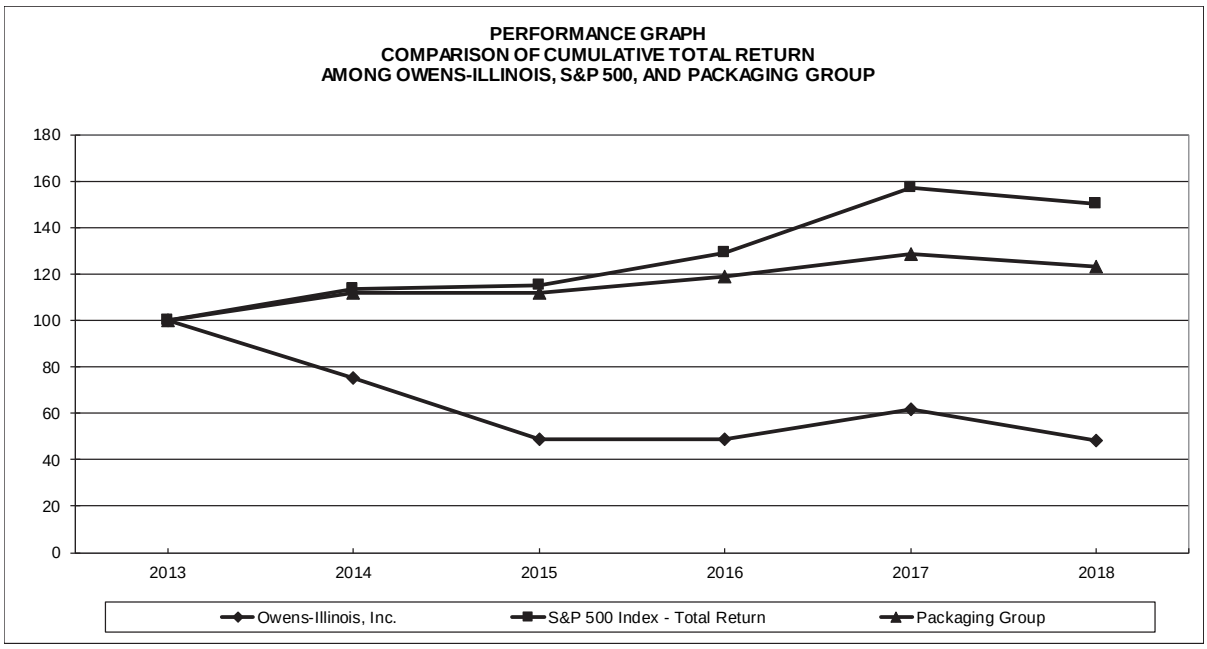
In November 2018, the Company's Board of Directors declared a dividend of $0.05 per share, which will be paid on February 12, 2019 to shareholders of record on the close of business on January 22, 2019. The Company anticipates that it will continue to pay quarterly cash dividends in the future. However, the payment and amount of future dividends remain within the discretion of the Company's Board of Directors and will depend upon the Company's future earnings, financial condition, capital requirements, and other factors.

Information with respect to securities authorized for issuance under equity compensation plans is included herein under Item 12.

The Company purchased 3,254,752 shares of its common stock during the fourth quarter of 2018 (8.6 million shares for the year) for approximately $56 million pursuant to authorization by its Board of Directors in January 2018 to purchase up to $400 million of the Company's common stock along with an authorization by its Board of Directors in November 2018 to purchase an additional $313 million of the Company's common stock. The following table provides information about the Company's purchases of its common stock during the fourth quarter of 2018:

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased (in thousands)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan (in thousands)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan (in millions)
October 1 - October 31, 2018	316	$ 19.13	316	$ 287
November 1 – November 30, 2018	450	17.28	450	592
December 1 - December 31, 2018	2,489	16.96	2,489	550



	Years Ending December 31,					
	2013	2014	2015	2016	2017	2018
Owens-Illinois, Inc.	$ 100.00	$ 75.43	$ 48.69	$ 48.66	$ 61.96	$ 48.18
S&P 500	100.00	113.69	115.26	129.05	157.22	150.33
Packaging Group	100.00	111.78	111.93	118.65	128.51	123.00

The above graph compares the performance of the Company's Common Stock with that of a broad market index (the S&P 500 Composite Index) and a packaging group consisting of companies with lines of business or product end uses comparable to those of the Company for which market quotations are available.

The packaging group consists of: AptarGroup, Inc., Ball Corp., Bemis Company, Inc., Crown Holdings, Inc., Owens-Illinois, Inc., Sealed Air Corp., Silgan Holdings Inc., and Sonoco Products Co. The comparison of total return on investment for each period is based on the investment of $100 on December 31, 2013 and the change in market value of the stock, including additional shares assumed purchased through reinvestment of dividends, if any.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data presented below relates to each of the five years in the period ended December 31, 2018, which was derived from the audited consolidated financial statements of the Company.

	Years ended December 31,				
	2018	2017	2016	2015	2014
	(Dollars in millions)				
Consolidated operating results(a):					
Net sales	$ 6,877	$ 6,869	$ 6,702	$ 6,156	$ 6,784
Cost of goods sold (b)	(5,594)	(5,536)	(5,392)	(5,046)	(5,481)
Gross profit	1,283	1,333	1,310	1,110	1,303
Selling and administrative, research, development and engineering (b)	(553)	(544)	(568)	(540)	(571)
Other expense, net (b)	(192)	(246)	(114)	(51)	(195)
Earnings before interest expense and items below	538	543	628	519	537
Interest expense, net	(261)	(268)	(272)	(251)	(230)
Earnings from continuing operations before income taxes	277	275	356	268	307
Provision for income taxes	(108)	(70)	(119)	(106)	(92)
Earnings from continuing operations	169	205	237	162	215
Gain (loss) from discontinued operations	113	(3)	(7)	(4)	(23)
Net earnings	282	202	230	158	192
Net (earnings) attributable to noncontrolling interests	(25)	(22)	(21)	(23)	(28)
Net earnings attributable to the Company	$ 257	$ 180	$ 209	$ 135	$ 164

	Years ended December 31,				
	2018	2017	2016	2015	2014
Basic earnings per share of common stock:					
Earnings from continuing operations	$ 0.90	$ 1.12	$ 1.33	$ 0.86	$ 1.14
Gain (loss) from discontinued operations	0.71	(0.01)	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.61	$ 1.11	$ 1.29	$ 0.83	$ 1.00
Weighted average shares outstanding (in thousands)	160,125	162,737	161,857	161,169	164,720
Diluted earnings per share of common stock:					
Earnings from continuing operations	$ 0.89	$ 1.11	$ 1.32	$ 0.85	$ 1.13
Gain (loss) from discontinued operations	0.70	(0.01)	(0.04)	(0.03)	(0.14)
Net earnings	$ 1.59	$ 1.10	$ 1.28	$ 0.82	$ 0.99
Diluted average shares (in thousands)	162,088	164,647	162,825	162,135	166,047
Dividends declared per common share	$ 0.05	$	$	$	$

	Years ended December 31,				
	2018	2017	2016	2015	2014
	(Dollars in millions)				
Other data:					
The following are included in earnings from continuing operations:					
Depreciation	$ 388	$ 387	$ 375	$ 323	$ 335
Amortization of intangibles	106	101	103	86	83
Amortization of deferred finance fees (included in interest expense)	13	13	13	15	30
Balance sheet data (at end of period):					
Working capital (current assets less current liabilities)	$ 150	$ 140	$ 194	$ 212	$ 43
Total assets	9,699	9,756	9,135	9,421	7,843
Total debt	5,341	5,283	5,328	5,573	3,445
Total share owners' equity	$ 900	$ 927	$ 363	$ 279	$ 771

(a) Note that the items below relate to items management considers not representative of ongoing operations.

	Years ended December 31,				
	2018	2017	2016	2015	2014
	(Dollars in millions)				
Cost of goods sold (b)					
Acquisition-related fair value inventory adjustments	$ —	$ —	$ —	$ 22	$ —
Restructuring, asset impairment and related charges	5				8
Other expense, net (b)					
Restructuring, asset impairment and other charges	97	77	129	75	78
Pension settlement charges	74	218	98		65
Gain on China land sale			(71)		
Charge for asbestos-related costs	125			16	46
Strategic transaction costs				23	
Non-income tax charge					69
Acquisition-related fair value intangible adjustments				10	
Equity earnings related charges				5	5
Interest expense, net					
Note repurchase premiums and additional interest charges for the write-off of unamortized deferred financing fees related to the early extinguishment of debt	11	18	9	42	20
Provision for income taxes					
Net tax (benefit) expense for income tax on items above	(14)	(27)	1	(15)	(34)
Tax expense (benefit) recorded for certain tax adjustments		(29)	(8)	8	(8)
Net earnings attributable to noncontrolling interest					
Net impact of noncontrolling interests on items above	(1)	(3)	2		
	$ 297	$ 254	$ 160	$ 186	$ 249

(b) As a result of a new accounting standard, Accounting Standards Update No. 2017-07, “Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost,” the Company reclassified $200 million, $98 million and $50 million of pension settlement charges from Cost of goods sold to Other expense, net for the years ended December 31, 2017, 2016 and 2014, respectively. The Company also reclassified $18 million and $15 million of pension settlement charges from Selling and administrative expense to Other expense, net for the years ended December 31, 2017 and 2014, respectively.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The Company's measure of profit for its reportable segments is segment operating profit, which consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The segment data presented below is prepared in accordance with general accounting principles for segment reporting. The line titled "reportable segment totals", however, is a non-GAAP measure when presented outside of the financial statement footnotes. Management has included reportable segment totals below to facilitate the discussion and analysis of financial condition and results of operations. The Company's management uses segment operating profit, in combination with selected cash flow information, to evaluate performance and to allocate resources.

As previously disclosed, to better leverage its scale and presence across a larger geography and market, the Company completed the consolidation of the former North America and Latin America segments into one segment, named the Americas, effective January 1, 2018. The consolidation resulted in the leadership roles of the former North America and Latin America segments being combined into one position, President of the Americas, reporting to the Company's chief operating decision maker ("CODM"), who is the Company's Chief Executive Officer. Beginning January 1, 2018, the CODM reviews the operating results at the Americas level to make resource allocation decisions and to assess performance. The consolidation also resulted in the elimination of duplicative costs as certain functions of the former North America and Latin America segments were combined to simplify the management of the new Americas segment. For example, the Company consolidated its business shared service centers in North America and Latin America into one Americas shared service center. Amounts for 2017 and 2016 in the following tables are presented on the redefined basis for the Americas segment.

Financial information regarding the Company's reportable segments is as follows (dollars in millions):

	2018	2017	2016
Net sales:			
Americas	$ 3,638	$ 3,711	$ 3,652
Europe	2,489	2,375	2,300
Asia Pacific	675	714	684
Reportable segment totals	6,802	6,800	6,636
Other	75	69	66
Net sales	$ 6,877	$ 6,869	$ 6,702

	2018	2017	2016
Segment operating profit:			
Americas	$ 585	$ 614	$ 568
Europe	316	263	237
Asia Pacific	44	65	77
Reportable segment totals	945	942	882
Items excluded from segment operating profit:			
Retained corporate costs and other	(106)	(104)	(98)
Charge for asbestos-related costs	(125)		
Pension settlement charges	(74)	(218)	(98)
Restructuring, asset impairment and other charges	(102)	(77)	(129)
Gain on China land sale			71
Interest expense, net	(261)	(268)	(272)
Earnings from continuing operations before income taxes	277	275	356
Provision for income taxes	(108)	(70)	(119)
Earnings from continuing operations	169	205	237
Gain (loss) from discontinued operations	113	(3)	(7)
Net earnings	282	202	230
Net earnings attributable to noncontrolling interests	(25)	(22)	(21)
Net earnings attributable to the Company	$ 257	$ 180	$ 209
Net earnings from continuing operations attributable to the Company	$ 144	$ 183	$ 216

Note: all amounts excluded from reportable segment totals are discussed in the following applicable sections.

Executive Overview—Comparison of 2018 with 2017

2018 Highlights

- Net sales in 2018 were up slightly from the same period in 2017, driven by higher prices but partially offset by lower volumes and an unfavorable effect of changes in foreign currency exchange rates.
- Segment operating profit for reportable segments was up slightly in 2018 compared to 2017. Higher segment operating profit in Europe more than offset lower segment operating profit in the other regions.
- The Company combined the North America and Latin America segments into one segment, named the Americas, to better leverage its scale and presence across a larger geography and market, and to reduce costs.
- The Company acquired a 49.7 percent interest in Empresas Comegua S.A., the leading manufacturer of glass containers for the Central American and Caribbean markets, for approximately $119 million.
- The Company entered into a new $1.91 billion senior secured credit facility with a final maturity date of June 2023.
- The Company's Board of Directors declared a dividend of $0.05 per share which will be paid on February 12, 2019 to shareholders of record on the close of business on January 22, 2019.
- The Company repurchased approximately 8.6 million shares of its common stock during 2018 for approximately $163 million. The Company's Board of Directors also authorized an increase of the existing share repurchase program, resulting in approximately $550 million in remaining repurchase authority as of December 31, 2018.

Net sales in 2018 increased by $8 million compared to the same period in the prior year primarily due to higher prices, but partially offset by lower volumes and an unfavorable effect of changes in foreign currency exchange rates.

Earnings from continuing operations before income taxes were $2 million higher in 2018 than in the prior year, primarily due to higher segment operating profit. Segment operating profit for reportable segments in 2018 were $3 million higher compared to the prior year. Higher segment operating profit in Europe more than offset lower segment operating profit in the other regions.

Net interest expense in 2018 decreased $7 million compared to 2017. The decrease was primarily due to lower note repurchase premiums and write-offs of deferred finance fees recorded in 2018 than in 2017.

For 2018, the Company recorded net earnings from continuing operations attributable to the Company of $144 million, or $0.89 per share (diluted), compared with $183 million, or $1.11 per share (diluted), in 2017.

Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $297 million, or $1.83 per share, in 2018 and $254 million, or $1.54 per share, in 2017.

Results of Operations—Comparison of 2018 with 2017

Net Sales

The Company's net sales in 2018 were $6,877 million compared with $6,869 million in 2017, an increase of $8 million, or less than 1%. Higher selling prices benefited net sales by $150 million in 2018. Unfavorable foreign currency exchange rates, driven by a weaker Brazilian real and the Mexican peso, decreased net sales by $20 million in 2018 compared to the prior year. Total glass container shipments, in tonnes, were down approximately 2% in 2018 compared to the prior year and were driven by the transfer of production to the Company's joint venture in Mexico, the ongoing trends in U.S. beer shipments, the Brazil transportation strike and capacity constraints in both the Americas and Europe. Lower sales volume and an unfavorable sales mix decreased net sales by $128 million.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2017		$ 6,800
Price	$ 150	
Sales volume	(128)	
Effects of changing foreign currency rates	(20)	
Total effect on net sales		2
Net sales— 2018		$ 6,802

Americas: Net sales in the Americas in 2018 were $3,638 million compared with $3,711 million for the same period in 2017, a decrease of $73 million, or 2%. Higher selling prices increased net sales by $117 million in 2018. Total glass container shipments in the region were down 3% in 2018 compared to the prior year with higher shipments to food customers offset by lower shipments to alcoholic beverage customers. Despite the transportation strike and capacity constraints, year over year shipments in Brazil were also strong in 2018. In the U.S., solid year over year growth in shipments to food customers in 2018 were more than offset by a decline in shipments to alcoholic beverage customers, owing to the ongoing trends in beer shipments and the transfer of production to the Company's joint venture with Constellation Brands. Overall, the change in sales volume and mix in the region decreased net sales by $98 million in 2018. The effects of foreign currency exchange rate changes decreased net sales $92 million in 2018 compared to 2017, primarily due to the weakening of the Brazilian real and the Mexican peso in relation to the U.S. dollar.

Europe: Net sales in Europe in 2018 were $2,489 million compared with $2,375 million for the same period in 2017, an increase of $114 million, or 5%. The effects of foreign currency exchange rates increased net sales in the region by approximately $95 million in 2018 as the Euro strengthened in relation to the U.S. dollar. Glass container shipments in 2018 were down less than 1% compared to the same period in 2017, partially due to certain production capacity constraints. These slightly lower shipments in the region in 2018 resulted in $5 million of lower net sales. Selling prices in Europe increased net sales by $24 million in 2018 compared to the prior year.

Asia Pacific: Net sales in Asia Pacific in 2018 were $675 million compared with $714 million in 2017, a decrease of $39 million, or 5%. Glass container shipments in 2018 were down 3% compared to 2017, primarily driven by lower shipments to alcoholic beverage customers in Australia, resulting in $25 million of lower net sales. Slightly higher selling prices increased net sales by $9 million in 2018. The unfavorable effects of foreign currency exchange rate changes decreased net sales by $23 million as the Australian Dollar and New Zealand Dollar weakened in relation to the U.S. dollar.

Earnings from Continuing Operations before Income Taxes and Segment Operating Profit

Earnings from continuing operations before income taxes were $277 million in 2018 compared to $275 million for the same period in 2017, an increase of $2 million, or nearly 1%, and were primarily due to higher segment operating profit.

Operating profit of the reportable segments includes an allocation of some corporate expenses based on a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Condensed Consolidated Financial Statements.

Segment operating profit of reportable segments in 2018 was $945 million compared to $942 million for 2017, an increase of $3 million, or less than 1%. Higher selling prices in 2018 slightly outpaced higher costs, lower sales volumes and an unfavorable impact from the effects of foreign currency exchange rates. Higher segment operating profit in Europe more than offset lower segment operating profit in the other regions.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2017		$ 942
Price	$ 150	
Sales volume	(25)	
Operating costs	(119)	
Effects of changing foreign currency rates	(3)	
Total net effect on segment operating profit		3
Segment operating profit - 2018		$ 945

Americas: Segment operating profit in the Americas in 2018 was $585 million compared with $614 million in 2017, a decrease of $29 million, or 5%. The change in sales volume and mix discussed above decreased segment operating profit in the current year by $16 million. Selling prices were $117 million higher in the current year period compared to the prior year. Segment operating profit was impacted by $149 million of higher operating costs in 2018 than in the same period in the prior year, driven by cost inflation, the transportation strike in Brazil, a raw material batch disruption issue at a plant in Mexico, and higher transportation costs due to freight rate inflation. The region also benefitted from $11 million of insurance proceeds in 2018. In addition, the region recorded a $19 million gain in 2018 based on a favorable court ruling in Brazil, which will allow the region to recover revenue tax paid in previous years. The region's previous restructuring actions have reduced operating costs by approximately $6 million in 2018, in line with management's expectations. The effects of foreign currency exchange rates decreased segment operating profit by $17 million in 2018, which included $4 million from the impact of highly-inflationary basis of accounting in the region's operations in Argentina.

Europe: Segment operating profit in Europe in 2018 was $316 million compared with $263 million in 2017, an increase of $53 million, or 20%. The effects of foreign currency exchange rates increased segment operating profit by $15 million in the current year period. Selling prices were $24 million higher in 2018 compared to the prior year period. Segment operating profit in 2018 improved due to approximately $5 million of lower operating costs compared to the same period in the prior year. Lower production volumes in the region were partially offset by an approximate $11 million gain related to an asset sale. In addition, the prior year permanent footprint adjustment in the region contributed to lower operating costs in 2018, in line with management's expectations

when the restructuring activities were initiated. The change in sales volume and mix described above reduced segment operating profit by $2 million.

Asia Pacific: Segment operating profit in Asia Pacific in 2018 was $44 million compared with $65 million in 2017, a decrease of $21 million, or 32%. As anticipated, cost inflation and asset improvement projects in the region drove operating costs higher and decreased segment operating profit by $22 million in 2018 compared to the same period in the prior year. The decrease in sales volume discussed above reduced segment operating profit by $7 million. Higher selling prices increased segment operating profit in 2018 by $9 million. The effects of foreign currency exchange rates decreased segment operating profit by $1 million in 2018.

Interest Expense, Net

Net interest expense for 2018 was $261 million compared with $268 million in 2017. Net interest expense included $11 million and $18 million in 2018 and 2017, respectively, for note repurchase premiums and the write-off of deferred finance fees that were related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense was comparable in 2018 to the prior year.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2018 was 39.0% compared with 25.5% for 2017. The effective tax rate for 2018 was higher than the same period in 2017 primarily due to the nonoccurrence of a resolution of a tax matter in 2017 that resulted in approximately $26 million of tax accruals being reversed. The effective tax rates for both 2018 and 2017 were also impacted by several charges that management considered not representative of ongoing operations, including charges for restructuring, pension settlements, asbestos-related costs, and the write-off of finance fees, for which no tax benefit was recorded due to the Company's valuation allowance recorded in the U.S.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate was approximately 21% in 2018 and 2017.

Net Earnings from Continuing Operations Attributable to the Company

For 2018, the Company recorded net earnings from continuing operations attributable to the Company of $144 million, or $0.89 per share (diluted), compared to $183 million, or $1.11 per share (diluted), in 2017. Earnings in 2018 and 2017 included items that management considered not representative of ongoing operations as set forth in the following table (dollars in millions):

	Net Earnings Increase (Decrease)	
Description	**2018**	**2017**
Charge for asbestos-related costs	$ (125)	$ —
Pension settlement charges	(74)	(218)
Restructuring, asset impairment and other charges	(102)	(77)
Note repurchase premiums and write-off of finance fees	(11)	(18)
Tax benefit for certain tax adjustments		29
Net benefit (charge) for income tax on items above	14	27
Net impact of noncontrolling interests on items above	1	3
Total	$ (297)	$ (254)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2018 were decreased due to foreign currency effects compared to 2017.

This trend may continue into 2019. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Executive Overview—Comparison of 2017 with 2016

2017 Highlights

- Net sales were up nearly 3% compared to the prior year, driven by higher shipments, higher prices and the favorable effects of changes in foreign currency exchange rates
- Driven by higher shipments and progress on strategic initiatives, segment operating profit was higher in all regions, except for Asia Pacific, compared to the prior year
- Issued €225 million and $310 million of senior notes and repaid higher-cost debt
- Received $115 million from selling the Company's right, title and interest in amounts due under a prior arbitration award in Venezuela

Net sales increased by $167 million compared to the prior year primarily due to the favorable effect of changes in foreign currency exchange rates, higher shipments and higher prices.

Earnings from continuing operations before income taxes were $81 million lower in 2017 than the prior year primarily due to higher pension settlement charges, partially offset by higher segment operating profit. Segment operating profit for reportable segments increased by $60 million compared to the prior year. For 2017, segment operating profit in all regions, except for Asia Pacific, exceeded prior year amounts.

Net interest expense in 2017 decreased $4 million compared to 2016. Net interest expense included $18 million and $9 million in 2017 and 2016, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense decreased $13 million in 2017 primarily due to deleveraging and refinancing actions.

For 2017, the Company recorded earnings from continuing operations attributable to the Company of $183 million, or $1.11 per share (diluted), compared with earnings of $216 million, or $1.32 per share (diluted), for 2016. Earnings in both periods included items that management considered not representative of ongoing operations. These items decreased earnings from continuing operations attributable to the Company by $254 million, or $1.54 per share, in 2017 and $160 million, or $0.99 per share, in 2016.

Results of Operations—Comparison of 2017 with 2016

Net Sales

The Company's net sales in 2017 were $6,869 million compared with $6,702 million in 2016, an increase of $167 million, or approximately 3%. Higher selling prices benefited net sales by $61 million in 2017. Total glass container shipments, in tonnes, were up approximately 1% in 2017 compared to the same period in the prior year. However, an unfavorable sales mix resulted in approximately $3 million of lower sales. Favorable foreign currency exchange rates, primarily due to a stronger Euro, Brazilian real, Colombian peso, Australian dollar and New Zealand dollar, increased sales by $106 million.

The change in net sales of reportable segments can be summarized as follows (dollars in millions):

Net sales— 2016		$ 6,636
Price	$ 61	
Sales volume (excluding acquisitions)	(3)	
Effects of changing foreign currency rates	106	
Total effect on net sales		164
Net sales— 2017		$ 6,800

Americas: Net sales in the Americas in 2017 were $3,711 million compared with $3,652 million in 2016, an increase of $59 million, or 2%. Higher selling prices increased net sales by $59 million in 2017. Total glass shipments in the region were comparable in 2017 to the prior year. Strong shipments in Mexico and higher shipments in Brazil were nearly offset by lower shipments to beer customers in the U.S. An unfavorable sales mix resulted in $32 million of lower sales in 2017 and was partially due to several customers converting a portion of their glass shipments from carton packaging to bulk shipments. Favorable foreign currency exchange rates increased net sales by $32 million, principally due to a strengthening of the Brazilian real and Colombian peso in relation to the U.S. dollar.

Europe: Net sales in Europe in 2017 were $2,375 million compared with $2,300 million in 2016, an increase of $75 million, or 3%. Net sales in 2017 were benefited by a 1% increase in glass container shipments driven by higher shipments to beer, spirits and wine customers. This increased net sales by $28 million compared to the prior year. Favorable foreign currency exchange rates increased net sales by $57 million, as the Euro strengthened in relation to the U.S. dollar. As a result of the pass through of 2016 cost deflation to customers under contractual price adjustment formulas, selling prices in Europe were $10 million lower in 2017 compared to the same period in the prior year.

Asia Pacific: Net sales in Asia Pacific in 2017 were $714 million compared with $684 million in 2016, an increase of $30 million, or 4%. The favorable effects of foreign currency exchange rates changes during 2017, primarily due to the strengthening of the Australian dollar and New Zealand dollar in relation to the U.S. dollar, increased net sales by $17 million. Glass container shipments were down 1% in 2017 as higher shipments to food customers were more than offset by lower shipments to beer and non-alcoholic beverage customers. This resulted in a slightly favorable sales mix, which contributed to $1 million of higher sales in 2017. Slightly higher selling prices also increased net sales by $12 million in 2017.

Earnings from Continuing Operations before Income Taxes and Segment Operating Profit

Earnings from continuing operations before income taxes were $275 million in 2017 compared with $356 million for the same period in 2016, a decrease of $81 million, or 23%. This decrease was primarily due to higher pension settlement charges, partially offset by higher segment operating profit.

Operating profit of the reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided. Unallocated corporate expenses and certain other expenses not directly related to the reportable segments' operations are included in Retained corporate costs and other. For further information, see Segment Information included in Note 2 to the Consolidated Financial Statements.

Segment operating profit of reportable segments in 2017 was $942 million compared to $882 million in 2016, an increase of $60 million, or 7%. Higher selling prices increased segment operating profit by $61 million and the favorable effects of foreign currency exchange rates increased segment operating profit by $11 million in 2017. Partially offsetting this was $12 million of higher operating costs.

The change in segment operating profit of reportable segments can be summarized as follows (dollars in millions):

Segment operating profit - 2016		$ 882
Price	$ 61	
Sales volume (excluding acquisitions)	—	
Operating costs	(12)	
Effects of changing foreign currency rates	11	
Total net effect on segment operating profit		60
Segment operating profit - 2017		$ 942

Americas: Segment operating profit in the Americas in 2017 was $614 million compared with $568 million in 2016, an increase of $46 million, or 8%. Selling prices were $59 million higher in 2017 compared to the prior year. The unfavorable sales mix discussed above decreased segment operating profit by $7 million. Operating costs in 2017 were higher than the same period in the prior year and this decreased segment operating profit by $16 million. Despite significant benefits from cost savings initiatives and higher equity earnings from the Company's joint-venture with Constellation Brands ("Constellation Brands") in Mexico, these benefits were more than offset by substantial cost inflation. Beginning in the first quarter of 2017, equity earnings from this joint-venture were recorded in the Americas region. In prior years, equity earnings from this joint-venture were recorded in retained corporate costs and other as it was mostly in construction mode. In addition, approximately $5 million in gains related to non-strategic asset sales were recognized by the region in 2017. The favorable effects of foreign currency exchange rates increased segment operating profit by $5 million in 2017.

Europe: Segment operating profit in Europe in 2017 was $263 million compared with $237 million in 2016, an increase of $26 million, or 11%. Operating costs were $25 million lower in 2017 than the prior year period due to cost savings initiatives, benefits realized from a permanent footprint adjustment and cost deflation. The increase in sales volume discussed above improved segment operating profit by $6 million. Lower selling prices decreased segment operating profit in 2017 by $10 million. The favorable effects of foreign currency exchange rates increased segment operating profit by $5 million in 2017.

Asia Pacific: Segment operating profit in Asia Pacific in 2017 was $65 million compared with $77 million in 2016, a decrease of $12 million, or 16%. Despite cost containment efforts, cost inflation, higher supply chain costs and higher costs related to asset improvement projects in the region increased operating costs and decreased segment operating profit by $30 million in 2017. Costs associated with these asset improvement projects are planned to continue and will result in lower segment operating profit in the first half of 2018 in the region than the same period in 2017. Also, in 2017, higher selling prices increased segment operating profit by $12 million and the change in sales volume and mix discussed above increased segment operating profit by $1 million. In addition, the region recorded $4 million of gain related to a land sale in 2017. The favorable effects of foreign currency exchange rates increased segment operating profit by $1 million in 2017.

Interest Expense, net

Net interest expense in 2017 was $268 million compared with $272 million in 2016. Net interest expense included $18 million and $9 million in 2017 and 2016, respectively, for note repurchase premiums and the write-off of finance fees related to debt that was repaid prior to its maturity. Exclusive of these items, net interest expense decreased $13 million in 2017 primarily due to deleveraging and refinancing actions.

Provision for Income Taxes

The Company's effective tax rate from continuing operations for 2017 was 25.5%, compared with 33.4% for 2016. The Company's effective tax rate for 2017 was lower than 2016 primarily due to the resolution of a tax matter that resulted in approximately $26 million of tax accruals reversed in 2017.

Excluding the amounts related to items that management considers not representative of ongoing operations, the Company's effective tax rate for 2017 was approximately 21%, compared with approximately 24% for 2016. The rate for 2017 was lower than 2016 due to favorable resolution of certain tax matters during 2017.

The U.S. Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. See Note 11 to the Consolidated Financial Statements for additional information.

Net Earnings Attributable to Noncontrolling Interests

Net earnings attributable to noncontrolling interests for 2017 was $22 million compared to $21 million for 2016.

Earnings from Continuing Operations Attributable to the Company

For 2017, the Company recorded earnings from continuing operations attributable to the Company of $183 million, or $1.11 per share (diluted), compared with earnings of $216 million, or $1.32 per share (diluted), for 2016. The after tax effects of the items excluded from segment operating profit, the unusual tax items and the additional interest charges increased or decreased earnings in 2017 and 2016 as set forth in the following table (dollars in millions).

	Net Earnings Increase (Decrease)	
Description	**2017**	**2016**
Pension settlement charges	$ (218)	$ (98)
Restructuring, asset impairment and other charges	(77)	(129)
Note repurchase premiums and write-off of finance fees	(18)	(9)
Gain on China land sale		71
Tax benefit (charge) for certain tax adjustments	29	8
Net benefit (charge) for income tax on items above	27	(1)
Net impact of noncontrolling interests on items above	3	(2)
Total	$ (254)	$ (160)

Foreign Currency Exchange Rates

Given the global nature of its operations, the Company is subject to fluctuations in foreign currency exchange rates. As described above, the Company's reported revenues and segment operating profit in 2017 were increased due to foreign currency effects compared to 2016.

This trend may not continue into 2018. During times of a strengthening U.S. dollar, the reported revenues and segment operating profit of the Company's international operations will be reduced because the local currencies will translate into fewer U.S. dollars. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates.

Items Excluded from Reportable Segment Totals

Retained Corporate Costs and Other

Retained corporate costs and other for 2018 were $106 million compared with $104 million for 2017. Planned increases in research and development costs in 2018 were partially offset by lower selling and administrative expenses.

Retained corporate costs and other for 2017 were $104 million compared with $98 million for 2016. These costs were higher in 2017 primarily due to lower equity earnings from the Company's joint-venture with Constellation Brands in Mexico. Beginning in the first quarter of 2017, equity earnings from this joint-venture were recorded in the Americas region. In prior years, equity earnings from this joint-venture were recorded in Retained Corporate Costs and Other as it was mostly in construction mode.

Charge for Asbestos-Related Costs

For the year ended December 31, 2018, the Company's comprehensive legal review of its asbestos-related liabilities resulted in a $125 million charge. This charge was primarily due to factors impacting the increased likelihood of additional losses resulting from changes in the law, procedure, the expansion of judicial resources in certain jurisdictions, renewed attention to dockets of non-mesothelioma cases, and new information obtained about the Company's asbestos-related liability. For the years ended December 31, 2017 and 2016, no adjustments were required for asbestos-related costs.

As part of its future comprehensive annual reviews, the Company will estimate its total asbestos-related liability and such reviews may result in adjustments to the liability accrued at the time of the review. The Company continues to believe that its ultimate asbestos-related liability cannot be estimated with certainty.

See "Critical Accounting Estimates" and Note 13 to the Consolidated Financial Statements for additional information.

Pension Settlement Charges

In the past several years, the Company has settled a portion of its pension obligations through retiree annuity contract purchase transactions, which resulted in settlement charges as noted below. The Company may purchase annuity contracts in the future, which would result in additional settlement charges.

During 2018, the Company recorded charges totaling $74 million for pension settlements, primarily in the United States and United Kingdom.

During 2017, the Company recorded charges totaling $218 million for pension settlements in the United States, Canada and United Kingdom.

During 2016, the Company recorded charges totaling $98 million for pension settlements in the United States.

See Note 10 to the Consolidated Financial Statements for additional information.

Restructuring, Asset Impairment and Other Charges

During 2018, the Company recorded charges totaling $102 million for restructuring, asset impairment and other charges. These charges reflect $92 million of plant and furnace closures, primarily in the Americas region, and other charges of $10 million.

During 2017, the Company recorded charges totaling $77 million for restructuring, asset impairment and other charges. These charges reflect $72 million of plant and furnace closures, primarily in the Americas and European regions, and other charges of $5 million.

During 2016, the Company recorded charges totaling $129 million for restructuring, asset impairment and other charges. These charges reflect $98 million of plant and furnace closures, primarily in the Europe and Americas regions. In addition, other charges of $31 million were recorded during 2016, primarily related to an impairment charge recorded at one of the Company's equity investments.

See Note 9 to the Consolidated Financial Statements for additional information.

Gain on China Land Compensation

During 2016, the Company recorded a gain of $71 million related to compensation received for land that the Company was required to return to the Chinese government.

Discontinued Operations

On December 6, 2018, an ad hoc committee for the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") rejected the request by the Bolivarian Republic of Venezuela ("Venezuela") to annul the award issued by an ICSID tribunal in favor of OI European Group B.V. ("OIEG") related to the 2010

expropriation of OIEG's majority interest in two plants in Venezuela (the "Award"). The annulment proceeding with respect to the Award is now concluded.

On July 31, 2017, OIEG sold its right, title and interest in amounts due under the Award to an Ireland-domiciled investment fund. Under the terms of the sale, OIEG received a payment, in cash, at closing equal to $115 million (the "Cash Payment"). OIEG may also receive additional payments in the future ("Deferred Amounts") calculated based on the total compensation that is received from Venezuela as a result of collection efforts or as settlement of the Award with Venezuela. OIEG's right to receive any Deferred Amounts is subject to the limitations described below.

OIEG's interest in any amounts received in the future from Venezuela in respect of the Award is limited to a percentage of such recovery after taking into account reimbursement of the Cash Payment to the purchaser and reimbursement of legal fees and expenses incurred by the Company and the purchaser. OIEG's percentage of such recovery will also be reduced over time. Because the Award has yet to be satisfied and the ability to successfully enforce the Award in countries that are party to the ICSID Convention is subject to significant challenges, the Company is unable to reasonably predict the amount of recoveries from the Award, if any, to which the Company may be entitled in the future. Any future amounts that the Company may receive from the Award are highly speculative and the timing of any such future payments, if any, is highly uncertain. As such, there can be no assurance that the Company will receive any future payments under the Award beyond the Cash Payment.

A separate arbitration involving other subsidiaries of the Company was initiated in 2012 to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants. However, on November 13, 2017, ICSID issued an award that dismissed this arbitration on jurisdiction grounds. In March 2018, the two subsidiaries of the Company submitted to ICSID an application to annul the November 13, 2017 award; they have since submitted a pleading seeking annulment.

As a result of the favorable ruling by an ICSID ad hoc committee rejecting Venezuela's request to annul the Award, and thereby concluding those annulment proceedings, the Company has recognized a $115 million gain from discontinued operations in 2018. The gain from discontinued operations of $113 million, and the losses from discontinued operations of $3 million and $7 million for the years ended December 31, 2018, 2017 and 2016, respectively, reflect the gain in 2018 and the ongoing costs for the Venezuelan expropriation in all three years.

Capital Resources and Liquidity

As of December 31, 2018, the Company had cash and total debt of $512 million and $5.3 billion, respectively, compared to $492 million and $5.3 billion, respectively, as of December 31, 2017. A significant portion of the cash was held in mature, liquid markets where the Company has operations, such as the U.S., Europe and Australia, and is readily available to fund global liquidity requirements. The amount of cash held in non-U.S. locations as of December 31, 2018 was $481 million.

Current and Long-Term Debt

On June 27, 2018, certain of the Company's subsidiaries entered into a new Senior Secured Credit Facility (the "Agreement"), which amended and restated the previous credit agreement (the "Previous Agreement"). The proceeds from the Agreement were used to repay all outstanding amounts under the Previous Agreement. The Company recorded $11 million of additional interest charges for the write-off of unamortized fees during 2018.

The Agreement provides for up to $1.91 billion of borrowings pursuant to term loans and revolving credit facilities. The term loans mature, and the revolving credit facilities terminate, in June 2023. At December 31, 2018, the Agreement includes a $300 million revolving credit facility, a $700 million multicurrency revolving credit facility, and a $910 million term loan A facility ($897 million net of debt issuance costs). At December 31, 2018, the Company had unused credit of $988 million available under the Agreement. The weighted average interest rate on borrowings outstanding under the Agreement at December 31, 2018 was 3.97%.

The Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain indebtedness and liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Agreement also contains one financial maintenance covenant, a Total Leverage Ratio (the "Leverage Ratio"), that requires the Company not to exceed a ratio of 4.5x calculated by dividing consolidated total debt, less cash and cash equivalents, by Consolidated EBITDA, as defined in the Agreement. The maximum Leverage Ratio is subject to an increase of 0.5x for (i) any fiscal quarter during which certain qualifying acquisitions (as specified in the Agreement) are consummated and (ii) the following three fiscal quarters. The Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Leverage Ratio to exceed the specified maximum.

Failure to comply with these covenants and other customary restrictions could result in an event of default under the Agreement. In such an event, the Company could not request borrowings under the revolving facilities, and all amounts outstanding under the Agreement, together with accrued interest, could then be declared immediately due and payable. Upon the occurrence and for the duration of a payment event of default, an additional default interest rate equal to 2.0% per annum will apply to all overdue obligations under the Agreement. If an event of default occurs under the Agreement and the lenders cause all of the outstanding debt obligations under the Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2018, the Company was in compliance with all covenants and restrictions in the Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Agreement will not be adversely affected by the covenants and restrictions.

The Leverage Ratio also determines pricing under the Agreement. The interest rate on borrowings under the Agreement is, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Agreement, plus an applicable margin. The applicable margin is linked to the Leverage Ratio. The margins range from 1.00% to 1.50% for Eurocurrency Rate loans and from 0.00% to 0.50% for Base Rate Loans. In addition, a commitment fee is payable on the unused revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Leverage Ratio.

Obligations under the Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Such obligations are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign obligations, of stock of certain foreign subsidiaries. All obligations under the Agreement are guaranteed by certain domestic subsidiaries of the Company, and certain foreign obligations under the Agreement are guaranteed by certain foreign subsidiaries of the Company.

In March 2017, the Company expanded its borrowings under the Senior Notes due 2024 by issuing €225 million of additional notes that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $237 million and were used to repay a portion of the Company's revolving credit facility.

During March 2017, the Company purchased in a tender offer approximately $228 million aggregate principal amount of its 7.80% Senior Debentures due in 2018. In November 2017, the remaining $22 million of the 7.80% Senior Debentures were repurchased by the Company, the indenture relating thereto was discharged, and all collateral and guarantees thereunder were released. The Company recorded $18 million of additional interest charges for note repurchase premiums and the write-off of unamortized finance fees related to these actions.

During December 2017, the Company issued senior notes with a face value of $310 million that bear interest at 4.00% and are due March 15, 2023. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled

approximately $305 million and were used to repay a portion of the term loan A facility under the Previous Agreement.

In the third quarter of 2018, the Company terminated a €185 million European accounts receivable securitization program.

In order to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt, the Company has entered into a series of interest rate swap agreements. These interest rate swap agreements were accounted for as either fair value hedges or cash flow hedges (See Note 8 to Consolidated Financial Statements for more information).

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

The carrying amounts reported for certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy.

Cash Flows

Operating activities: Cash provided by continuing operating activities was $793 million for 2018 compared to $724 million for 2017. The increase in cash provided by continuing operating activities in 2018 was primarily due to a year-over-year decrease in working capital of $15 million compared to a year-over-year increase of $89 million in 2017. In 2018, working capital was affected by higher accounts payable and inventory balances and lower trade receivables balances compared to year end 2017. In 2018, the Company has experienced higher sales levels in Europe and Brazil and lower sales levels in the U.S. compared to the prior year. This change in the sales mix has impacted trade receivables as longer payment terms are more common outside the U.S. Also, the Company factored approximately $145 million more trade receivables at year end 2018 compared to 2017. Together, the net impact of more factoring and a higher mix of sales outside the U.S. have had a favorable impact on the Company's operating cash flows in 2018.

Also, operating cash flows have been favorably impacted in 2018 as payments for restructuring activities were $30 million lower than in the prior year due to the timing of restructuring actions undertaken. Asbestos-related payments were approximately $105 million in 2018, or $5 million lower than in 2017. However, due to its de-risking and accelerated claim disposition strategy, the Company expects its 2019 asbestos-related payments to increase to approximately $160 million. The Company may continue to experience year-over-year variability with regard to the annual quantity of asbestos-related claims that it is presented with, disposed and paid. See Note 13 to the Consolidated Financial Statements for additional information. In addition, the Company experienced a $44 million year-over-year increase in cash utilized for other operating items, which included the impact of higher spending on non-current assets and lower charges for the write-off of deferred financing fees.

Investing activities: Cash utilized in continuing investing activities was $698 million for 2018 compared to $466 million for 2017. Capital spending for property, plant and equipment during 2018 was $536 million compared with $441 million in the prior year, reflecting the payment in 2018 of a higher level of vendor invoices accrued at the end of 2017, as well as a higher level of project activity in the Asia Pacific region.

Acquisition activities were $175 million and $39 million in 2018 and 2017, respectively. In 2018, the Company paid approximately $119 million for a nearly 50 percent interest in Empresas Comegua S.A., which is the leading manufacturer of glass containers for the Central American and Caribbean markets. In addition, in both 2018 and 2017, the Company made contributions to the Company's joint venture with Constellation Brands in Nava, Mexico. In October 2017, the Company signed an agreement to expand its joint venture with Constellation. To meet rising demand from Constellation's adjacent brewery, the newly-expanded relationship provides for the addition of a fifth furnace, which is expected to be operational by the end of 2019. This capacity expansion will be financed by equal contributions from both partners with the Company's contribution expected

to be approximately $30 million in 2019. The term of the joint venture agreement was also expanded for ten additional years, to 2034.

Also, in 2017, a subsidiary of the Company received $115 million from selling its right, title and interest in amounts due under a prior arbitration award against Venezuela related to a discontinued operation. See Note 20 to the Consolidated Financial Statements for additional information.

Financing activities: Cash utilized in financing activities was $53 million for 2018 compared to $392 million of cash utilized by financing activities for 2017. Finance activities in 2018 included additions to long-term debt of $2,511 million and repayments of long-term debt of $2,353 million, both driven by the refinancing of the Agreement in 2018. Financing activities in 2017 included additions to long-term debt of $1,458 million, which included the issuances of €225 million and $310 million of senior notes. Financing activities in 2017 also included the repayment of long-term debt of $1,764 million, which included the repayment of floating-rate debt in the Company's Senior Secured Credit Facility and the repurchase of the 2018 Senior Debentures. Borrowings under short-term loans decreased by $18 million in 2018. The Company paid approximately $13 million in finance fees in 2018 compared to $28 million in note repurchase premiums and finance fees in 2017. The Company paid $22 million and $17 million in distributions to noncontrolling interests in 2018 and 2017, respectively.

In January 2018, the Board of Directors authorized a $400 million share repurchase program and in November 2018, the board authorized an increase to the program, resulting in approximately $550 million in remaining repurchase authority as of December 31, 2018. In 2018, the Company repurchased $163 million in shares of the Company's stock and expects to repurchase approximately $200 million in shares in 2019. In addition, the Company's Board of Directors declared a dividend of $0.05 per share, or approximately $8 million, which will be paid on February 12, 2019, to shareholders of record on the close of business on January 22, 2019. The Board anticipates declaring a dividend in future quarters on a regular basis; however, future declarations of dividends are subject to Board approval and may be adjusted based on the Company's results of operations, financial position and cash flow, or as business needs or market conditions change.

The Company anticipates that cash flows from its operations and from utilization of credit available under the Agreement will be sufficient to fund its operating and seasonal working capital needs, debt service and other obligations on a short-term (twelve months) and long-term basis. Based on the Company's expectations regarding future payments for lawsuits and claims and also based on the Company's expected operating cash flow, the Company believes that the payment of any deferred amounts of previously settled or otherwise determined lawsuits and claims, and the resolution of presently pending and anticipated future lawsuits and claims associated with asbestos, will not have a material adverse effect upon the Company's liquidity on a short-term or long-term basis.

Contractual Obligations and Off-Balance Sheet Arrangements

The following information summarizes the Company's significant contractual cash obligations at December 31, 2018 (dollars in millions).

	Payments due by period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Contractual cash obligations:					
Long-term debt	$ 5,169	$ 26	$ 1,436	$ 2,288	$ 1,419
Capital lease obligations	45	7	13	10	15
Operating leases	252	67	90	62	33
Interest(1)	881	230	379	202	70
Purchase obligations(2)	2,031	586	707	350	388
Pension benefit plan contributions(3)	36	36			
Postretirement benefit plan benefit payments(1)	92	10	19	19	44
Equity affiliate investment obligation(4)	30	30			
Total contractual cash obligations	$ 8,536	$ 992	$ 2,644	$ 2,931	$ 1,969

	Amount of commitment expiration per period				
	Total	Less than one year	1 - 3 years	3 - 5 years	More than 5 years
Other commercial commitments:					
Standby letters of credit	$ 45	$ 45	$ —	$ —	$ —
Total commercial commitments	$ 45	$ 45	$ —	$ —	$ —

(1) Amounts based on rates and assumptions at December 31, 2018.

(2) The Company's purchase obligations consist principally of contracted amounts for energy and molds. In cases where variable prices are involved, current market prices have been used. The amount above does not include ordinary course of business purchase orders because the majority of such purchase orders may be canceled. The Company does not believe such purchase orders will adversely affect its liquidity position.

(3) In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $36 million in 2019. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly.

(4) The Company entered into a joint venture agreement with Constellation Brands to operate a glass container plant in Nava, Mexico. To help meet current and rising demand from Constellation's adjacent brewery, the joint venture plans to expand the plant over the next year. The Company expects to contribute approximately $30 million for the joint venture's expansion plans in 2019.

The Company is unable to make a reasonably reliable estimate as to when cash settlement with taxing authorities may occur for its unrecognized tax benefits. Therefore, the liability for unrecognized tax benefits is not included in the table above. See Note 11 to the Consolidated Financial Statements for additional information.

Critical Accounting Estimates

The Company's analysis and discussion of its financial condition and results of operations are based upon its consolidated financial statements that have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities. The Company evaluates these estimates and assumptions on an ongoing basis. Estimates and assumptions are based on historical and other factors believed to be reasonable under the circumstances at the time the financial statements are issued. The results of these estimates may form the basis of the carrying value of certain assets and liabilities and may not be

readily apparent from other sources. Actual results, under conditions and circumstances different from those assumed, may differ from estimates.

The impact of, and any associated risks related to, estimates and assumptions are discussed within Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in the Notes to the Consolidated Financial Statements, if applicable, where estimates and assumptions affect the Company's reported and expected financial results.

The Company believes that accounting for the impairment of long-lived assets, pension benefit plans, contingencies and litigation related to its asbestos-related liability, and income taxes involves the more significant judgments and estimates used in the preparation of its consolidated financial statements.

Impairment of Long-Lived Assets

Property, Plant and Equipment—The Company tests for impairment of PP&E whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. PP&E held for use in the Company's business is grouped for impairment testing at the lowest level for which cash flows can reasonably be identified, typically a segment or a component of a segment. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. PP&E held for sale is reported at the lower of carrying amount or fair value less cost to sell.

Impairment testing requires estimation of the fair value of PP&E based on the discounted value of projected future cash flows generated by the asset group. The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include, among other things: industry and market conditions, sales volume and prices, production costs and inflation. Changes in key assumptions or actual conditions which differ from estimates could result in an impairment charge. The Company uses reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

Goodwill –Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise). Step 1 compares the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then goodwill impairment must be calculated. Goodwill impairment will be calculated by comparing the reporting unit's fair value of goodwill with the carrying amount of goodwill. Any excess of the carrying value of the goodwill over the fair value will be recorded as an impairment loss. The calculations of the BEV in Step 1 are based on significant unobservable inputs, such as projected future cash flows of the reporting units, discount rates, and terminal business value, and are classified as Level 3 in the fair value hierarchy. The Company's projected future cash flows incorporates management's best estimates of the expected future results including, but not limited to, price trends, customer demand, material costs, asset replacement costs and any other known factors.

Goodwill is tested for impairment at the reporting unit level, which is the operating segment or one level below the operating segment, also known as a component. Two or more components of an operating segment shall be aggregated into a single reporting unit if the components have similar economic characteristics, based on an assessment of various factors. Despite the consolidation of the Americas segment effective January 1, 2018, the Company has not changed the reporting units within this segment or the goodwill allocated to its reporting units. The Americas segment is comprised of two reporting units – North America and Latin America. The Company aggregated the components of the Latin America reporting segment into a single reporting unit. The Company has determined that the Europe segment is also a reporting unit. The Company aggregated the components of the Asia Pacific segment, which has no goodwill, into a single reporting unit equal to the reportable segment. The aggregation of the components of these reporting units or segments were based on their economic similarity as determined by the Company using a number of quantitative and qualitative factors,

including gross margins, the manner in which the Company operates the business, the consistent nature of products, services, production processes, customers and methods of distribution, as well as the level of shared resources and assets between the components.

During the fourth quarter of 2018, the Company completed its annual impairment testing and determined that no impairment of goodwill existed. Goodwill at December 31, 2018 totaled approximately $2.5 billion, representing 26% of total assets. The Company has four reporting units of which three of the reporting units have goodwill and include approximately $874 million of recorded goodwill to the Company's Europe reporting unit, approximately $1.04 billion of recorded goodwill to the Company's North America reporting unit and approximately $598 million of recorded goodwill to the Company's Latin America reporting unit. The testing performed as of October 1, 2018, indicated an excess of BEV over book value for North America, Europe and Latin America. North America exceeded its carrying values by approximately 12% and is determined to be the reporting unit having the greatest risk of future impairment if actual results fall modestly short of expectations. If the Company's projected future cash flows were substantially lower, or if the assumed weighted average cost of capital was substantially higher, the testing performed as of October 1, 2018, may have indicated an impairment of one or more of these reporting units and, as a result, the related goodwill may also have been impaired. Any impairment charges that the Company may take in the future could be material to its consolidated results of operations and financial condition. However, less significant changes in projected future cash flows or the assumed weighted average cost of capital would not have indicated an impairment. For example, if projected future cash flows had been decreased by 5%, or if the weighted average cost of capital had been increased by 5%, or both, the resulting lower BEV's would still have exceeded the book value of each of these reporting units.

During the time subsequent to the annual evaluation, and at December 31, 2018, the Company considered whether any events and/or changes in circumstances had resulted in the likelihood that the goodwill of any of its reporting units may have been impaired and has determined that no such events have occurred. The Company will monitor conditions throughout 2019 that might significantly affect the projections and variables used in the impairment test to determine if a review prior to October 1 may be appropriate. If the results of impairment testing confirm that a write down of goodwill is necessary, then the Company will record a charge in the fourth quarter of 2019, or earlier if appropriate. In the event the Company would be required to record a significant write down of goodwill, the charge would have a material adverse effect on reported results of operations and net worth.

Other Long-Lived Assets - Intangibles – Other long-lived assets consist primarily of purchased customer relationships intangibles and are amortized using the accelerated amortization method over their estimated useful lives. The Company reviews these assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. In the event that a decline in fair value of an asset occurs, and the decline in value is considered to be other than temporary, an impairment loss is recognized. The test for impairment would require the Company to make estimates about fair value, which may be determined based on discounted cash flows, third party appraisals or other methods that provide appropriate estimates of value. The Company continually monitors the carrying value of their assets.

Pension Benefit Plans

Significant Estimates—The determination of pension obligations and the related pension expense or credits to operations involves significant estimates. The most significant estimates are the discount rate used to calculate the actuarial present value of benefit obligations and the expected long-term rate of return on plan assets. The Company uses discount rates based on yields of high quality fixed rate debt securities at the end of the year. At December 31, 2018, the weighted average discount rate was 3.69% and 2.76% for U.S. and non-U.S. plans, respectively. The Company uses an expected long-term rate of return on assets that is based on both past performance of the various plans' assets and estimated future performance of the assets. Due to the nature of the plans' assets and the volatility of debt and equity markets, actual returns may vary significantly from year to year. The Company refers to average historical returns over longer periods (up to 10 years) in determining its expected rates of return because short-term fluctuations in market values do not reflect the rates of return the Company expects to achieve based upon its long-term investing strategy. For purposes of determining pension charges and credits in 2018, the Company's estimated weighted average expected long-term rate of return on plan assets is

7.25% for U.S. plans and 5.52% for non-U.S. plans compared to 7.50% for U.S. plans and 6.32% for non-U.S. plans in 2017. The Company recorded pension expense from continuing operations (exclusive of settlement charges) of $26 million, $21 million, and $23 million for the U.S. plans in 2018, 2017, and 2016, respectively, and $6 million, $8 million, and $8 million for the non-U.S. plans in 2018, 2017, and 2016, respectively. Depending on currency translation rates, the Company expects to record approximately $32 million of total pension expense for the full year of 2019. The 2019 pension expense will reflect a 7.25% and 5.50% expected long-term rate of return for the U.S. assets and non-U.S. assets, respectively.

Future effects on reported results of operations depend on economic conditions and investment performance. For example, a one-half percentage point change in the actuarial assumption regarding discount rates used to calculate plan liabilities or in the expected rate of return on plan assets would result in a change of approximately $5 million and $10 million, respectively, in the pretax pension expense for the full year 2019.

Recognition of Funded Status—The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

Contingencies and Litigation Related to Asbestos Liability

For many years, the Company has conducted an annual comprehensive legal review of its asbestos-related liabilities and costs in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its current annual comprehensive legal review, the Company provides historical claims filing data to a third party consultant with expertise in predicting future claims filings based on actuarial inputs such as disease incidence and mortality. The Company uses these estimates of total future claims, along with its legal judgment regarding an estimation of future disposition costs and related legal costs, as inputs to develop a reasonable estimate of probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are described in the Risk Factors section and in Note 13 to the Consolidated Financial Statements. Changes in these significant assumptions have the potential to impact the Company's asbestos-related liability.

In addition, if trends relating to the Company's actual Asbestos Claims materially differ, up or down, from the amounts predicted, the total number of future estimated Asbestos Claims could change significantly. Similarly, if trends relating to the actual per-claim indemnity costs differ materially, up or down, from the previously estimated amount, the total cost of the estimate future Asbestos Claims could change significantly. The same may also be true with respect to legal costs. Significant changes in the future total number of predicted Asbestos Claims, or their costs, could impact the total estimated asbestos-related liability, which in turn could result in a material charge or credit to the Company's results of operations.

The Company believes it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which is $602 million as of December 31, 2018. The Company estimates that reasonably possible losses could result in asbestos-related liabilities up to $722 million. This estimate of additional reasonably possible loss reflects a qualitative legal judgment regarding the nature of contingencies that could impact future Asbestos Claims and legal costs, which include, but are not limited to, successful attempts by plaintiffs to challenge existing legal barriers to liability, enact plaintiff-oriented liability or damage-related legislation, establish new theories of liability, or revive long-dormant inventories of non-mesothelioma cases. However, it is also possible that the ultimate amount of asbestos-related liabilities could be above this estimate.

Income Taxes

The Company accounts for income taxes as required by general accounting principles under which management judgment is required in determining income tax expense/(benefit) and the related balance sheet amounts. This judgment includes estimating and analyzing historical and projected future operating results, the reversal of taxable and tax deductible temporary differences, tax planning strategies, and the ultimate outcome of uncertain income tax positions. Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the effective settlement of uncertain tax positions. The Company has received tax assessments in excess of established reserves for uncertain tax positions. The Company is contesting these tax assessments, and will continue to do so, including pursuing all available remedies such as appeals and litigation, if necessary.

The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. Changes in the estimates and assumptions used for calculating income tax expense and potential differences in actual results from estimates could have a material impact on the Company's results of operations and financial condition.

Deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using enacted tax rates and for tax attributes such as operating losses and tax credit carryforwards. Deferred tax assets and liabilities are determined separately for each tax jurisdiction on a separate or on a consolidated tax filing basis, as applicable, in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income of the appropriate character within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- taxable income in prior carryback years;
- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards; and
- prudent and feasible tax planning strategies that the Company would be willing to undertake to prevent a deferred tax asset from otherwise expiring.

The assessment regarding whether a valuation allowance is required or whether a change in judgment regarding the valuation allowance has occurred also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of cumulative losses in recent years;
- duration of statutory carryforward and carryback periods;
- statutory limitations against utilization of tax attribute carryforwards against taxable income;
- historical experience with tax attributes expiring unused; and
- near- and medium-term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is generally difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last two years and current year results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred

tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain tax jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

Based on the evidence available including a lack of sustainable earnings, the Company in its judgment previously recorded a valuation allowance against substantially all of its net deferred tax assets in the United States. If a change in judgment regarding this valuation allowance were to occur in the future, the Company will record a potentially material deferred tax benefit, which could result in a favorable impact on the effective tax rate in that period. The utilization of tax attributes to offset taxable income reduces the amount of deferred tax assets subject to a valuation allowance.

In 2017, the Company elected to treat Global Intangible Low Taxed Income ("GILTI"), which was effective in 2018 for the Company, as a period cost.

The U.S. Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and creates new taxes on certain foreign sourced earnings. Additional guidance is likely to be issued providing further clarification on the application of the Act, and the proposed regulations subsequently issued with respect to the Act. Further, it is reasonable to expect that global taxing authorities will be reviewing current legislation for potential modifications in reaction to the implementation of the Act. This additional guidance, along with the potential for additional global tax legislation changes, could have a material adverse impact on net income and cash flow by impacting significant deductions or income inclusions.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risks relating to the Company's operations result primarily from fluctuations in foreign currency exchange rates, changes in interest rates, and changes in commodity prices, principally energy and soda ash. The Company uses certain derivative instruments to mitigate a portion of the risk associated with changing foreign currency exchange rates. The Company also uses certain derivative instruments to mitigate a portion of the risk associated with fluctuating energy prices in its Americas region. These instruments carry varying degrees of counterparty credit risk. To mitigate this risk, the Company has defined a financial counterparty policy that established criteria to select qualified counterparties based on credit ratings and CDC spreads. The policy also limits the exposure with individual counterparties. The Company monitors these exposures quarterly. The Company does not enter into derivative financial instruments for trading purposes.

Foreign Currency Exchange Rate Risk

Earnings of Operations Outside the United States

A substantial portion of the Company's operations are conducted by subsidiaries outside the U.S. The primary international markets served by the Company's subsidiaries are in Canada, Australia, China, Latin America (principally Brazil, Colombia, and Mexico), and Europe (principally France, Germany, Italy, the Netherlands, Poland, Spain, and the United Kingdom). In general, revenues earned and costs incurred by the Company's major international operations are denominated in their respective local currencies. Consequently, the Company's reported financial results could be affected by factors such as changes in foreign currency exchange rates or highly inflationary economic conditions in the international markets in which the Company's subsidiaries operate. When the U.S. dollar strengthens against foreign currencies, the reported U.S. dollar value of local currency earnings generally decreases; when the U.S. dollar weakens against foreign currencies, the reported U.S. dollar value of local currency earnings generally increases. For the years ended December 31, 2018, 2017, and

2016, the Company did not have any significant foreign subsidiaries whose functional currency was the U.S. dollar.

Borrowings Not Denominated in the Functional Currency

Because the Company's subsidiaries operate within their local economic environment, the Company believes it is appropriate to finance those operations with borrowings denominated in the local currency to the extent practicable where debt financing is desirable or necessary. This strategy mitigates the risk of reported losses or gains in the event the foreign currency strengthens or weakens against the U.S. dollar. Considerations which influence the amount of such borrowings include long- and short-term business plans, tax implications, and the availability of borrowings with acceptable interest rates and terms.

Available excess funds of a subsidiary may be redeployed through intercompany loans to other subsidiaries for debt repayment, capital investment, or other cash requirements. The intercompany loans give rise to foreign currency exchange rate risk, which the Company mitigates through the use of forward exchange contracts that effectively swap the intercompany loan and related interest to the appropriate local currency.

Foreign Exchange Derivative Contracts and not Designated as Hedging Instruments

The Company uses short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company also uses foreign exchange agreements to offset the foreign currency risk for receivables and payables, including intercompany receivables, payables, and loans, not denominated in, or indexed to, their functional currencies. At December 31, 2018 and 2017, the net fair value of such agreements was less than $1 million and a net asset of $3 million, respectively.

Cash Flow Hedges of Foreign Exchange Risk

The Company has variable-interest rate borrowings denominated in currencies other than the functional currency of the borrowing subsidiaries. As a result, the Company is exposed to fluctuations in the currency of the borrowing against the subsidiaries' functional currency. The Company uses derivatives to manage these exposures and designates these derivatives as cash flow hedges of foreign exchange risk. For these derivatives designated as cash flow hedges of foreign exchange risk the gain or loss on the derivative is recorded in Accumulated OCI and is subsequently reclassified into earnings in the period for which the hedged forecasted transaction affects earnings. At December 31, 2018 and 2017, the net fair value of such swap contracts was a net asset of $9 million and a net asset of $4 million, respectively.

Interest Rate Risk

The Company's interest expense is most sensitive to changes in the general level of interest rates applicable to the term loans under its Agreement (see Note 12 to the Consolidated Financial Statements for further information). The Company's interest rate risk management objective is to limit the impact of interest rate changes on net income and cash flow, while minimizing interest payments and expense. To achieve this objective, the Company regularly evaluates its mix of fixed and floating-rate debt, and, from time to time, may enter into interest rate swap agreements.

The following table provides information about the Company's interest rate sensitivity related to its significant debt obligations, including interest rate swap agreements, at December 31, 2018. The table presents principal cash flows and related weighted-average interest rates by expected maturity date.

(Dollars in millions)	2019	2020	2021	2022	2023	Thereafter	Total	Fair Value at 12/31/2018
Long-term debt at variable rate:								
Principal by expected maturity	$ 18	$ 250	$ 34	$ 32	$ 518	$ 825	$ 1,677	$ 1,670
Avg. principal outstanding	$ 1,667	$ 1,533	$ 1,391	$ 1,359	$ 1,084	$ 825		
Avg. interest rate	3.05 %	3.01 %	2.97 %	2.95 %	2.69 %	2.29 %		
Long-term debt at fixed rate:								
Principal by expected maturity	$ 15	$ 768	$ 397	$ 517	$ 1,231	$ 609	$ 3,537	$ 3,632
Avg. principal outstanding	$ 3,530	$ 2,770	$ 2,375	$ 1,864	$ 632	$ 632		
Avg. interest rate	5.00 %	4.94 %	4.95 %	4.95 %	5.85 %	5.85 %		

The Company believes the near term exposure to interest rate risk of its debt obligations has not changed materially since December 31, 2018.

In addition, the determination of pension obligations and the related pension expense or credits to operations involves significant estimates. Future funding requirements for the Company's pension plans will depend largely on actual asset returns and future actuarial assumptions, such as discount rates, and can vary significantly. The discount rate is a significant estimate that is used to calculate the actuarial present value of benefit obligations and is based on yields of high quality fixed rate debt securities at the end of the year. For example, a one-half percentage point change in the actuarial assumption regarding discount rates used to calculate plan liabilities or in the expected rate of return on plan assets would result in a change of approximately $5 million and $10 million, respectively, in the pretax pension expense for the full year 2019.

Interest Rate Swap Agreements

The Company's objectives in using interest rate derivatives are to manage its exposure to interest rate movements and to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt. To accomplish this objective, the Company uses interest rate swaps as part of its interest rate risk management strategy. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments. These interest rate swap agreements were used to hedge the variable cash flows associated with variable-rate debt. At December 31, 2018 and 2017, the net fair value of such swap contracts was a net asset of $5 million and a net liability of $4 million, respectively.

Commodity Price Risk

The Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows. At December 31, 2018 and 2017, the net fair value of such contracts was a net asset of $1 million and a net liability of $10 million, respectively.

The Company believes the near term exposure to commodity price risk of its commodity forward contracts was not material at December 31, 2018.

Forward-Looking Statements

This document contains "forward-looking" statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Section 27A of the Securities Act of 1933. Forward-looking statements reflect the Company's current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words "believe," "expect," "anticipate," "will," "could," "would," "should," "may," "plan," "estimate," "intend," "predict," "potential," "continue," and the negatives of these words and other similar expressions generally identify forward-looking statements. It is possible the Company's future financial performance may differ from expectations due to a variety of factors including, but not limited to the following: (1) foreign currency fluctuations relative to the U.S. dollar, (2) changes in capital availability or cost, including interest rate fluctuations and the ability of the Company to refinance debt at

favorable terms, (3) the general political, economic and competitive conditions in markets and countries where the Company has operations, including uncertainties related to economic and social conditions, disruptions in the supply chain, competitive pricing pressures, inflation or deflation, and changes in tax rates and laws, (4) the Company's ability to generate sufficient future cash flows to ensure the Company's goodwill is not impaired, (5) consumer preferences for alternative forms of packaging, (6) cost and availability of raw materials, labor, energy and transportation, (7) the Company's ability to manage its cost structure, including its success in implementing restructuring plans and achieving cost savings, (8) consolidation among competitors and customers, (9) the Company's ability to acquire businesses and expand plants, integrate operations of acquired businesses and achieve expected synergies, (10) unanticipated expenditures with respect to environmental, safety and health laws, (11) unanticipated operational disruptions, including higher capital spending, (12) the Company's ability to further develop its sales, marketing and product development capabilities, (13) the failure of the Company's joint venture partners to meet their obligations or commit additional capital to the joint venture, (14) the Company's ability to prevent and detect cybersecurity threats against its information technology systems and to comply with data privacy regulations, (15) the Company's ability to accurately estimate its total asbestos-related liability or to control the timing and occurrence of events related to outstanding asbestos-related claims, including but not limited to settlements of those claims, (16) changes in U.S. trade policies, (17) the Company's ability to achieve its strategic plan, and the other risk factors discussed in this Annual Report on Form 10-K for the year ended December 31, 2018 and any subsequently filed Quarterly Report on Form 10-Q. It is not possible to foresee or identify all such factors. Any forward-looking statements in this document are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company's results of operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward-looking statements contained in this document.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Share Owners of
Owens-Illinois, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Owens-Illinois, Inc. (the Company) as of December 31, 2018 and 2017, the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and financial statement schedule listed in the Index at Item 15 (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 14, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 1987.
Toledo, Ohio
February 14, 2019

Owens-Illinois, Inc.

CONSOLIDATED RESULTS OF OPERATIONS

Dollars in millions, except per share amounts

Years ended December 31,	2018	2017	2016
Net sales	$ 6,877	$ 6,869	$ 6,702
Cost of goods sold	(5,594)	(5,536)	(5,392)
Gross profit	1,283	1,333	1,310
Selling and administrative expense	(483)	(484)	(503)
Research, development and engineering expense	(70)	(60)	(65)
Interest expense, net	(261)	(268)	(272)
Equity earnings	77	77	60
Other expense, net	(269)	(323)	(174)
Earnings from continuing operations before income taxes	277	275	356
Provision for income taxes	(108)	(70)	(119)
Earnings from continuing operations	169	205	237
Gain (loss) from discontinued operations	113	(3)	(7)
Net earnings	282	202	230
Net earnings attributable to noncontrolling interests	(25)	(22)	(21)
Net earnings attributable to the Company	$ 257	$ 180	$ 209
Amounts attributable to the Company:			
Earnings from continuing operations	$ 144	$ 183	$ 216
Gain (loss) from discontinued operations	113	(3)	(7)
Net earnings	$ 257	$ 180	$ 209
Basic earnings per share:			
Earnings from continuing operations	$ 0.90	$ 1.12	$ 1.33
Gain (loss) from discontinued operations	0.71	(0.01)	(0.04)
Net earnings	$ 1.61	$ 1.11	$ 1.29
Diluted earnings per share:			
Earnings from continuing operations	$ 0.89	$ 1.11	$ 1.32
Gain (loss) from discontinued operations	0.70	(0.01)	(0.04)
Net earnings	$ 1.59	$ 1.10	$ 1.28
Dividends declared per common share	$ 0.05	$ -	$ -

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED COMPREHENSIVE INCOME

Dollars in millions

Years ended December 31,	2018	2017	2016
Net earnings	$ 282	$ 202	$ 230
Other comprehensive income (loss):			
Foreign currency translation adjustments	(174)	70	(224)
Pension and other postretirement benefit adjustments, net of tax	30	289	52
Change in fair value of derivative instruments, net of tax	(6)	(8)	13
Other comprehensive income (loss)	(150)	351	(159)
Total comprehensive income	132	553	71
Comprehensive income attributable to noncontrolling interests	(17)	(27)	(17)
Comprehensive income attributable to the Company	$ 115	$ 526	$ 54

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS

Dollars in millions

December 31,	2018	2017
Assets		
Current assets:		
Cash and cash equivalents	$ 512	$ 492
Trade receivables, net of allowances of $35 million and $34 million at December 31, 2018 and 2017, respectively	549	663
Inventories	1,018	1,036
Prepaid expenses and other current assets	278	229
Total current assets	2,357	2,420
Other assets:		
Equity investments	698	525
Pension assets	44	49
Other assets	602	602
Intangibles	400	439
Goodwill	2,513	2,590
Total other assets	4,257	4,205
Property, plant and equipment:		
Land, at cost	244	255
Buildings and equipment, at cost:		
Buildings and building equipment	1,141	1,180
Factory machinery and equipment	5,193	5,015
Transportation, office and miscellaneous equipment	102	96
Construction in progress	344	303
	7,024	6,849
Less accumulated depreciation	3,939	3,718
Net property, plant and equipment	3,085	3,131
Total assets	$ 9,699	$ 9,756

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED BALANCE SHEETS (Continued)

Dollars in millions, except per share amounts

December 31,	2018	2017
Liabilities and Share Owners' Equity		
Current liabilities:		
Accounts payable	$ 1,321	$ 1,324
Salaries and wages	157	166
U.S. and foreign income taxes	34	35
Current portion of asbestos-related liabilities	160	100
Other accrued liabilities	375	378
Other liabilities - discontinued operations		115
Short-term loans	127	151
Long-term debt due within one year	33	11
Total current liabilities	2,207	2,280
Long-term debt	5,181	5,121
Deferred taxes	96	99
Pension benefits	534	471
Nonpension postretirement benefits	145	167
Other liabilities	194	209
Asbestos-related liabilities	442	482
Share owners' equity:		
Share owners' equity of the Company:		
Common stock, par value $.01 per share, 250,000,000 shares authorized, 186,575,999 and 185,727,663 shares issued (including treasury shares), respectively	2	2
Capital in excess of par value	3,124	3,099
Treasury stock, at cost, 30,917,603 and 22,648,606 shares, respectively	(705)	(551)
Retained earnings	333	84
Accumulated other comprehensive loss	(1,968)	(1,826)
Total share owners' equity of the Company	786	808
Noncontrolling interests	114	119
Total share owners' equity	900	927
Total liabilities and share owners' equity	$ 9,699	$ 9,756

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED SHARE OWNERS' EQUITY

Dollars in millions

	Share Owners' Equity of the Company						
	Common Stock	Capital in Excess of Par Value	Treasury Stock	Retained Earnings (accumulated deficit)	Accumulated Other Comprehensive Loss	Non-Controlling Interests	Total Share Owners' Equity
Balance on January 1, 2016	$ 2	3,064	(573)	(305)	(2,017)	108	279
Issuance of common stock (0.5 million shares)		5					5
Reissuance of common stock (0.5 million shares)			13				13
Stock compensation (0.2 million shares)		11					11
Net earnings				209		21	230
Other comprehensive loss					(155)	(4)	(159)
Distributions to noncontrolling interests						(16)	(16)
Balance on December 31, 2016	2	3,080	(560)	(96)	(2,172)	109	363
Issuance of common stock (0.1 million shares)		1					1
Reissuance of common stock (0.4 million shares)			9				9
Stock compensation (0.3 million shares)		18					18
Net earnings				180		22	202
Other comprehensive income					346	5	351
Distributions to noncontrolling interests						(17)	(17)
Balance on December 31, 2017	2	3,099	(551)	84	(1,826)	119	927
Issuance of common stock (0.03 million shares)							—
Reissuance of common stock (0.4 million shares)		(2)	9				7
Treasury shares purchased (8.6 million shares)			(163)				(163)
Stock compensation (0.8 million shares)		27					27
Dividends declared (a)				(8)			(8)
Net earnings				257		25	282
Other comprehensive loss					(142)	(8)	(150)
Distributions to noncontrolling interests						(22)	(22)
Balance on December 31, 2018	$ 2	$ 3,124	$ (705)	$ 333	$ (1,968)	$ 114	$ 900

(a) The Company's Board of Directors declared a quarterly cash dividend of five cents per share of common stock in the fourth quarter of 2018.

See accompanying Notes to the Consolidated Financial Statements.

Owens-Illinois, Inc.

CONSOLIDATED CASH FLOWS

Dollars in millions

Years ended December 31,	2018	2017	2016
Operating activities:			
Net earnings	$ 282	$ 202	$ 230
Loss (gain) from discontinued operations	(113)	3	7
Non-cash charges (credits):			
Depreciation	388	387	375
Amortization of intangibles and other deferred items	106	101	103
Amortization of finance fees and debt discount	13	13	13
Deferred tax provision (benefit)	(9)	(12)	(4)
Pension expense	32	29	31
Restructuring, asset impairment and related charges	92	72	98
Pension settlement charges	74	218	98
Asbestos-related costs	125		
Impairment of equity investment			25
Gain on China land sale			(71)
Pension contributions	(34)	(31)	(38)
Asbestos-related payments	(105)	(110)	(125)
Cash paid for restructuring activities	(32)	(62)	(24)
Change in components of working capital	15	(89)	90
Other, net	(41)	3	(50)
Cash provided by continuing operating activities	793	724	758
Cash utilized in discontinued operating activities	(2)	(3)	(7)
Total cash provided by operating activities	791	721	751
Investing activities:			
Cash payments for property, plant and equipment	(536)	(441)	(454)
Acquisitions, net of cash acquired	(175)	(39)	(56)
Net cash proceeds on disposal of assets	11	14	85
Net foreign exchange derivative activity	2		8
Cash utilized in continuing investing activities	(698)	(466)	(417)
Cash provided by discontinued investing activities		115	
Total cash utilized in investing activities	(698)	(351)	(417)
Financing activities:			
Additions to long-term debt	2,511	1,458	1,235
Repayments of long-term debt	(2,353)	(1,764)	(1,453)
Increase (decrease) in short-term loans	(18)	(36)	10
Payment of finance fees	(13)	(28)	(9)
Distributions paid to noncontrolling interests	(22)	(17)	(16)
Treasury shares repurchased	(163)		
Issuance of common stock and other	5	(5)	5
Cash utilized in financing activities	(53)	(392)	(228)
Effect of exchange rate fluctuations on cash	(20)	22	(13)
Increase in cash	20	—	93
Cash and cash equivalents at beginning of period	492	492	399
Cash and cash equivalents at end of period	$ 512	$ 492	$ 492

See accompanying Notes to the Consolidated Financial Statements.

1. Significant Accounting Policies

Basis of Consolidated Statements The consolidated financial statements of Owens-Illinois, Inc. (the "Company") include the accounts of its subsidiaries. Newly acquired subsidiaries have been included in the consolidated financial statements from dates of acquisition.

The Company uses the equity method of accounting for investments in which it has a significant influence and generally an ownership interest of 20% to 50%. The Company monitors other than temporary declines in fair value and records reductions in carrying values when appropriate.

Nature of Operations The Company is a leading manufacturer of glass container products. The Company's principal product lines are glass containers for the food and beverage industries. The Company has glass container operations located in 23 countries. The principal markets and operations for the Company's products are in the Americas, Europe and Asia Pacific.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management of the Company to make estimates and assumptions that affect certain amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates, at which time the Company would revise its estimates accordingly.

Foreign Currency Translation The assets and liabilities of non-U.S. subsidiaries are translated into U.S. dollars at year-end exchange rates and their results of operations are converted on an ongoing basis at the monthly average rate. Any related translation adjustments are recorded in accumulated other comprehensive income in share owners' equity.

Revenue Recognition Revenue is recognized when obligations under the terms of the Company's contracts and related purchase orders with its customers are satisfied, which primarily takes place when products are shipped from the Company's manufacturing or warehousing facilities to the customer. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring goods, which includes estimated provisions for rebates, discounts, returns and allowances. Sales, value added, and other taxes the Company collects concurrent with revenue-producing activities are excluded from revenue.

Shipping and Handling Costs Shipping and handling costs are included with cost of goods sold in the Consolidated Results of Operations.

Stock-Based Compensation The Company has various stock-based compensation plans consisting of stock option grants and restricted share awards. Costs resulting from all share-based compensation plans are required to be recognized in the financial statements. A public entity is required to measure the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value of the award. That cost is recognized over the required service period (usually the vesting period). No compensation cost is recognized for equity instruments for which employees do not render the required service.

Cash The Company defines "cash" as cash and time deposits with maturities of three months or less when purchased. Outstanding checks in excess of funds on deposit are included in accounts payable.

Accounts Receivable Receivables are stated at amounts estimated by management to be the net realizable value. The Company charges off accounts receivable when it becomes apparent based upon age or customer circumstances that amounts will not be collected.

Allowance for Doubtful Accounts The allowance for doubtful accounts is established through charges to the provision for bad debts. The Company evaluates the adequacy of the allowance for doubtful accounts on a periodic basis. The evaluation includes historical trends in collections and write-offs, management's judgment of the probability of collecting accounts and management's evaluation of business risk.

Inventory Valuation Inventories are valued at the lower of average costs or market.

Goodwill Goodwill represents the excess of cost over fair value of net assets of businesses acquired. Goodwill is evaluated annually, as of October 1, for impairment or more frequently if an impairment indicator exists.

Intangible Assets and Other Long-Lived Assets Intangible assets are amortized over the expected useful life of the asset. Amortization expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Amortization expense related to non-manufacturing activities is included in Selling and administrative expense and Other expense, net. The Company evaluates the recoverability of intangible assets and other long-lived assets based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Property, Plant and Equipment Property, plant and equipment ("PP&E") is carried at cost and includes expenditures for new facilities and equipment and those costs which substantially increase the useful lives or capacity of existing PP&E. In general, depreciation is computed using the straight-line method and recorded over the estimated useful life of the asset. Factory machinery and equipment is depreciated over periods ranging from 5 to 25 years with the majority of such assets (principally glass-melting furnaces and forming machines) depreciated over 7 to 15 years. Buildings and building equipment are depreciated over periods ranging from 10 to 50 years. Depreciation expense directly attributed to the manufacturing of the Company's products is included in cost of goods sold. Depreciation expense related to non-manufacturing activities is included in selling and administrative. Depreciation expense includes the amortization of assets recorded under capital leases. Maintenance and repairs are expensed as incurred. Costs assigned to PP&E of acquired businesses are based on estimated fair values at the date of acquisition. The Company evaluates the recoverability of PP&E based on undiscounted projected cash flows, excluding interest and taxes, when factors indicate that impairment may exist. If impairment exists, the asset is written down to fair value.

Derivative Instruments The Company uses derivative instruments to manage risks generally associated with foreign exchange rate, interest rate and commodity market volatility. Derivative financial instruments are included on the balance sheet at fair value. Changes in the fair value of derivative assets or liabilities (i.e., gains or losses) are recognized depending upon the type of hedging relationship and whether a hedge has been designated. For those derivative instruments that qualify for hedge accounting, the Company designates the hedging instrument, based upon the exposure being hedged, as a cash flow hedge, fair value hedge, or a hedge of a net investment in a foreign operation. For a derivative instrument designated as a fair value hedge, the gain or loss on the derivative is recognized in earnings immediately with the offsetting gain or loss on the hedged item. For a derivative instrument designated as a cash flow hedge, the effective portion of the derivative's gain or loss is initially reported as a component of Accumulated other comprehensive loss and is subsequently recognized in earnings when the hedged exposure affects earnings. If there is an ineffective portion of the change in fair value of the derivative it is recognized directly in earnings. For a derivative instrument designated as a hedge of a net investment in a foreign operation, the effective portion of the derivative's gain or loss is reported in Accumulated other comprehensive loss as part of the cumulative translation adjustment and amounts are reclassified out of accumulated other comprehensive loss into earnings when the hedged net investment is either sold or substantially liquidated. Changes in fair value of derivative instruments that do not qualify for hedge accounting are recognized immediately in current net earnings. The Company does not enter into derivative financial instruments for trading purposes and is not a party to leveraged derivatives. In the consolidated statement of cash flows, the settlement of derivative instruments designated as hedges is typically recorded in the category that is consistent with the nature of the underlying item being hedged. See Note 8 to the Consolidated Financial Statements for additional information about hedges and derivative financial instruments.

Fair Value Measurements Fair value is defined as the amount that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. Generally accepted accounting principles defines a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs for which there is little or no market data, which requires the Company to develop assumptions.

The carrying amounts reported for cash and short-term loans approximate fair value. In addition, carrying amounts approximate fair value for certain long-term debt obligations subject to frequently redetermined interest rates. Fair values for the Company's significant fixed rate debt obligations are generally based on published market quotations.

Reclassifications Certain reclassifications of prior years' data have been made to conform to the current year presentation. As a result of the Company's implementation of Accounting Standards Update No. 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost," the Company reclassified $200 million and $98 million of pension settlement charges from Cost of goods sold to Other expense, net on the Consolidated Results of Operations for the years ended December 31, 2017 and 2016, respectively. The Company also reclassified $18 million of pension settlement charges from Selling and administrative expense to Other expense, net on the Consolidated Results of Operations for the year ended December 31, 2017.

New Accounting Standards

Revenue from Contracts with Customers - In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers," which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. On January 1, 2018, the Company adopted this accounting standard. See Note 3, Revenue, for additional information.

Leases - In February 2016, the FASB issued ASU No. 2016-02, "Leases" effective January 1, 2019. Under this guidance, lessees will be required to recognize on the balance sheet a lease liability and a right-of-use asset for all leases, with the exception of short-term leases. The lease liability represents the lessee's obligation to make lease payments arising from a lease, and will be measured as the present value of the lease payments. The right-of-use asset represents the lessee's right to use a specified asset for the lease term, and will be measured at the lease liability amount, adjusted for lease prepayment, lease incentives received and the lessee's initial direct costs. ASU No. 2016-02 is required to be applied using the modified retrospective approach for all leases existing as of the effective date. The Company expects to adopt this guidance using the additional, optional transition method, the package of transitional practical expedients relating to the identification, classification and initial direct costs of leases commencing before the effective date of ASU No. 2016-02, and the transitional practical expedient for the treatment of existing land easements; however, the Company does not expect to elect the hindsight transitional practical expedient. The Company anticipates the new guidance will significantly impact its consolidated financial statements as the Company has a significant number of leases. As of December 31, 2018, the Company had minimum lease commitments under non-cancellable operating leases approximating $265 million. The Company formed an implementation team, identified its lease population and implemented a new software to manage its leases in accordance with this new accounting standard.

Credit Losses - In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." This guidance requires the measurement of all expected credit losses for financial assets held at the reporting date based on historical experience, current conditions and reasonable and supportable forecasts. This guidance also requires enhanced disclosures regarding significant estimates and judgments used in estimating credit losses. The new guidance is effective for the Company on January 1, 2020. Early adoption is permitted for fiscal years, and interim periods within those fiscal

years, beginning after December 15, 2018. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Statement of Cash Flows - In August 2016, the FASB issued ASU No. 2016-15, "Classification of Certain Cash Receipts and Cash Payments" which was intended to reduce diversity in practice on how certain transactions are classified in the statement of cash flows. Application of the standard is required for annual periods beginning after December 15, 2017. The Company adopted this standard in the first quarter of 2018. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

Compensation - Retirement Benefits - In March 2017, the FASB issued ASU No. 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost" which requires the service cost component to be presented with other employee compensation costs in operating income within the income statement while the other components will be reported separately outside of operations. Application of the standard is required for annual periods beginning after December 15, 2017. The Company adopted this standard in the first quarter of 2018. The adoption of this standard did not have a material impact on the Company's consolidated financial statements, except for in the Consolidated Results of Operations for the prior periods in which there were pension settlement charges. These prior period pension settlement charges were reclassified from the Cost of goods sold and Selling and administrative expense to Other expense, net for the years ended December 31, 2017 and 2016, respectively. See the Reclassifications section of Note 1 for additional details.

Derivatives and Hedging - In August 2017, the FASB issued ASU No. 2017-12, "Targeted Improvements to Accounting for Hedging Activities" which improves the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements. Application of the standard is required for annual periods beginning after December 15, 2018. The Company adopted this standard in the first quarter of 2018. The adoption of this standard did not have a material impact on the Company's condensed consolidated financial statements.

Income Taxes - In January 2018, the FASB issued ASU 2018-02, "Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income," which gives entities the option to reclassify to retained earnings the tax effects resulting from the U.S. Tax Cuts and Jobs Act (the "Act") related to items in Accumulated other comprehensive income ("AOCI") that the FASB refers to as having been stranded in AOCI. The new guidance may be applied retrospectively to each period in which the effect of the Act is recognized in the period of adoption. The Company must adopt this guidance for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. Early adoption is permitted for periods for which financial statements have not yet been issued or made available for issuance, including the period the Act was enacted. The guidance, when adopted, will require new disclosures regarding a company's accounting policy for releasing the tax effects in AOCI and permit a company the option to reclassify to retained earnings the tax effects resulting from the Act that are stranded in AOCI. The Company is currently evaluating how to apply the new guidance and has not determined whether it will elect to reclassify stranded amounts, if any. The adoption of ASU 2018-02 is not expected to have a material effect on the Company's consolidated financial statements.

Disclosure Requirements for Fair Value Measurement - In August 2018, the FASB issued ASU No. 2018-13, "Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement" which modifies the fair value disclosure requirements. Application of the standard is required for annual periods beginning after December 15, 2019. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

Disclosure Requirements for Defined Benefit Plans - In August 2018, the FASB issued ASU No. 2018-14, "Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans" which modifies the defined benefit plan disclosure requirements. Application of the standard is required for annual periods

beginning after December 15, 2020. The Company is currently evaluating the impact that the adoption of this guidance will have on its consolidated financial statements.

2. Segment Information

The Company has three reportable segments and three operating segments based on its geographic locations: Americas, Europe, and Asia Pacific. These three segments are aligned with the Company's internal approach to managing, reporting, and evaluating performance of its global glass operations. As previously disclosed, to better leverage its scale and presence across a larger geography and market, the Company completed the consolidation of the former North America and Latin America segments into one segment, named the Americas, effective January 1, 2018. The consolidation resulted in the leadership roles of the former North America and Latin America segments being combined into one position, President of the Americas, reporting to the Company's chief operating decision maker ("CODM"), who is the Company's Chief Executive Officer. Beginning January 1, 2018, the CODM reviews the operating results at the Americas level to make resource allocation decisions and to assess performance. The consolidation also resulted in the elimination of duplicative costs as certain functions of the former North America and Latin America segments were combined to simplify the management of the new Americas segment. For example, the Company consolidated its business shared service centers in North America and Latin America into one Americas shared service center. Amounts for 2017 and 2016 in the following tables are presented on the redefined basis for the Americas segment.

Certain assets and activities not directly related to one of the regions or to glass manufacturing are reported with Retained corporate costs and other. These include licensing, equipment manufacturing, global engineering, and certain equity investments. Retained corporate costs and other also includes certain headquarters, administrative and facilities costs and certain incentive compensation and other benefit plan costs that are global in nature and are not allocable to the reportable segments.

The Company's measure of profit for its reportable segments is segment operating profit, which is a non-GAAP financial measure that consists of consolidated earnings from continuing operations before interest income, interest expense, and provision for income taxes and excludes amounts related to certain items that management considers not representative of ongoing operations as well as certain retained corporate costs. The Company's management uses segment operating profit, in combination with net sales and selected cash flow information, to evaluate performance and to allocate resources. Segment operating profit for reportable segments includes an allocation of some corporate expenses based on both a percentage of sales and direct billings based on the costs of specific services provided.

Financial information regarding the Company's reportable segments is as follows (dollars in millions):

	2018	2017	2016
Net sales:			
Americas	$ 3,638	$ 3,711	$ 3,652
Europe	2,489	2,375	2,300
Asia Pacific	675	714	684
Reportable segment totals	6,802	6,800	6,636
Other	75	69	66
Net sales	$ 6,877	$ 6,869	$ 6,702

	2018	2017	2016
Segment operating profit:			
Americas	$ 585	$ 614	$ 568
Europe	316	263	237
Asia Pacific	44	65	77
Reportable segment totals	945	942	882
Items excluded from segment operating profit:			
Retained corporate costs and other charges	(106)	(104)	(98)
Charge for asbestos-related costs	(125)		
Pension settlement charges	(74)	(218)	(98)
Restructuring, asset impairment and other	(102)	(77)	(129)
Gain on China land sale			71
Interest expense, net	(261)	(268)	(272)
Earnings from continuing operations before income taxes	$ 277	$ 275	$ 356

	Americas	Europe	Asia Pacific	Reportable Segment Totals	Retained Corp Costs and Other	Consolidated Totals
Total assets:						
2018	$ 5,497	$ 3,036	$ 918	$ 9,451	$ 248	$ 9,699
2017	5,411	3,133	1,001	9,545	211	9,756
2016	5,059	2,792	926	8,777	358	9,135
Equity investments:						
2018	$ 429	$ 98	$ 106	$ 633	$ 65	$ 698
2017	259	95	114	468	57	525
2016	21	78	117	216	217	433
Equity earnings:						
2018	$ 39	$ 21	$ —	$ 60	$ 17	$ 77
2017	41	18		59	18	77
2016	12	15	4	31	29	60
Capital expenditures:						
2018	$ 255	$ 187	$ 92	$ 534	$ 2	$ 536
2017	233	152	55	440	1	441
2016	231	163	59	453	1	454
Depreciation and amortization expense:						
2018	$ 293	$ 136	$ 55	$ 484	$ 10	$ 494
2017	310	125	43	478	10	488
2016	312	118	37	467	11	478

The Company’s net property, plant and equipment by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2018	$ 681	$ 2,404	$ 3,085
2017	757	2,374	3,131
2016	749	2,131	2,880

The Company's net sales by geographic segment are as follows:

	U.S.	Non-U.S.	Total
2018	$ 2,020	$ 4,857	$ 6,877
2017	2,072	4,797	6,869
2016	2,124	4,578	6,702

None of the years presented had a country with operations outside of the U.S. that accounted for more than 10% or more of consolidated net sales.

3. Revenue

On January 1, 2018, the Company adopted accounting standard ASC 606, "Revenue from Contracts with Customers," and selected the modified retrospective transition method. The adoption of this new standard did not impact the Company's consolidated results of operations or balance sheet and there was no cumulative effect of initially applying this new revenue standard to the opening balance of retained earnings.

Revenue is recognized when obligations under the terms of the Company's contracts and related purchase orders with its customers are satisfied. This occurs with the transfer of control of glass containers, which primarily takes place when products are shipped from the Company's manufacturing or warehousing facilities to the customer. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring goods, which includes estimated provisions for rebates, discounts, returns and allowances. Sales, value added, and other taxes the Company collects concurrent with revenue-producing activities are excluded from revenue. The Company's payment terms are based on customary business practices and can vary by customer type. The term between invoicing and when payment is due is not significant. Also, the Company elected to account for shipping and handling costs as a fulfillment cost at the time of shipment.

For the year ended December 31, 2018, the Company had no material bad debt expense and there were no material contract assets, contract liabilities or deferred contract costs recorded on the Consolidated Balance Sheet. For the year ended December 31, 2018, revenue recognized from prior periods (for example, due to changes in transaction price) was not material.

The following table for the year ended December 31, 2018 disaggregates the Company's revenue by customer end use:

	Americas	Europe	Asia Pacific	Total
Alcoholic beverages (beer, wine, spirits)	$ 2,281	$ 1,780	$ 493	$ 4,554
Food and other	780	461	101	1,342
Non-alcoholic beverages	577	248	81	906
Reportable segment totals	$ 3,638	$ 2,489	$ 675	$ 6,802
Other				75
Net sales				$ 6,877

4. Inventories

Major classes of inventory are as follows:

	2018	2017
Finished goods	$ 849	$ 873
Raw materials	125	122
Operating supplies	44	41
	$ 1,018	$ 1,036

5. Equity Investments

At December 31, 2018 the Company's ownership percentage in affiliates include:

Affiliates	O-I Ownership Percentage	Business Type
Empresas Comegua S.A.	49.7 %	Glass container manufacturer
BJC O-I Glass Pte. Ltd.	50 %	Glass container manufacturer
CO Vidrieria SARL ("COV")	50 %	Glass container manufacturer
Rocky Mountain Bottle Company	50 %	Glass container manufacturer
Tata Chemical (Soda Ash) Partners	25 %	Soda ash supplier
Vetrerie Meridionali SpA ("VeMe")	50 %	Glass container manufacturer
Vetri Speciali SpA	50 %	Specialty glass manufacturer

Summarized information pertaining to the Company's equity affiliates follows:

	2018	2017	2016
Equity in earnings:			
Non-U.S.	$ 52	$ 45	$ 19
U.S.	25	32	41
Total	$ 77	$ 77	$ 60
Dividends received	$ 72	$ 48	$ 38

Summarized combined financial information for equity affiliates is as follows (unaudited):

	2018	2017
At end of year:		
Current assets	$ 655	$ 466
Non-current assets	1,306	1,021
Total assets	1,961	1,487
Current liabilities	342	232
Other liabilities and deferred items	242	198
Total liabilities and deferred items	584	430
Net assets	$ 1,377	$ 1,057

For the year:	2018	2017	2016
Net sales	$ 972	$ 883	$ 755
Gross profit	$ 234	$ 242	$ 182
Net earnings	$ 184	$ 165	$ 145

Based on an evaluation of each of the Company's equity investments for the three years ending December 31, 2018, no investments exceeded the significant subsidiary thresholds per Rule 3-09 of Regulation S-X. As such, separate financial statements for the Company's equity investments are not required to be filed with the Securities and Exchange Commission.

The Company made purchases of approximately $255 million and $180 million from equity affiliates in 2018 and 2017, respectively, and owed approximately $111 million and $90 million to equity affiliates as of December 31, 2018 and 2017, respectively.

There is a difference of approximately $9 million as of December 31, 2018, between the amount at which certain investments are carried and the amount of underlying equity in net assets. The portion of the difference related to inventory or amortizable assets is amortized as a reduction of the equity earnings. The remaining difference is considered goodwill.

6. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2018, 2017, and 2016 are as follows:

	Europe	Americas	Other	Total
Balance as of January 1, 2016	$ 840	$ 1,644	$ 5	$ 2,489
Acquisition related adjustments		41		41
Translation effects	(32)	(36)		(68)
Balance as of December 31, 2016	808	1,649	5	2,462
Translation effects	105	23		128
Balance as of December 31, 2017	913	1,672	5	2,590
Translation effects	(39)	(38)		(77)
Balance as of December 31, 2018	$ 874	$ 1,634	$ 5	$ 2,513

The acquisition related adjustments in 2016 primarily relate to the Vitro acquisition that the Company completed on September 1, 2015.

Goodwill for the Asia Pacific segment is $0 and net of accumulated impairment losses of $1,135 million as of December 31, 2018, 2017, and 2016.

Goodwill is tested for impairment annually as of October 1 (or more frequently if impairment indicators arise) by comparing the business enterprise value ("BEV") of each reporting unit with its carrying value. The BEV is computed based on estimated future cash flows, discounted at the weighted average cost of capital of a hypothetical third-party buyer. If the BEV is less than the carrying value for any reporting unit, then any excess of the BEV of the goodwill over the carrying value will be recorded as an impairment loss. The calculations of the BEV are based on significant unobservable inputs, such as projected future cash flows of the reporting units, discount rates, terminal business value, and are classified as Level 3 in the fair value hierarchy. The Company's projected future cash flows incorporates management's best estimates of the expected future results including, but not limited to, price trends, customer demand, material costs, asset replacement costs and any other known factors.

During the fourth quarter of 2018, the Company completed its annual impairment testing and determined that no impairment existed.

Intangible Assets

Customer list intangible assets are amortized using the accelerated amortization method over their 20 year lives. Net intangible asset values were $400 million and $439 million, which included accumulated amortization of $142 million and $102 million, for the years ended December 31, 2018 and 2017, respectively. Amortization expense for intangible assets was $40 million, $41 million and $39 million for the years ended December 31, 2018, 2017, and 2016, respectively. Estimated amortization related to intangible assets through 2023 is as follows: 2019, $42 million; 2020, $41 million; 2021, $39 million; 2022, $36 million; and 2023, $32 million. No impairment existed on these assets at December 31, 2018.

The Company has determined that the fair value measurements related to the customer list intangibles are based on significant unobservable inputs and are classified as Level 3 in the fair value hierarchy.

7. Other Assets

Other assets (noncurrent) consist of the following at December 31, 2018 and 2017:

	2018	2017
Deferred tax assets	$ 191	$ 194
Deferred returnable packaging costs	109	119
Repair part inventories	102	106
Capitalized software	79	82
Value added taxes	26	24
Other	95	77
	$ 602	$ 602

Capitalized software includes costs related to the acquisition and development of internal-use software. These costs are amortized over the estimated useful life of the software. Amortization expense for capitalized software was $12 million, $12 million and $13 million for 2018, 2017, and 2016, respectively. Estimated amortization related to capitalized software through 2023 is as follows: 2019, $14 million; 2020, $12 million; 2021, $12 million; 2022, $11 million; and 2023, $10 million.

8. Derivative Instruments

The Company has certain derivative assets and liabilities which consist of natural gas forwards, foreign exchange option and forward contracts, interest rate swaps and cross currency swaps. The valuation of these instruments is determined primarily using the income approach, including discounted cash flow analysis on the expected cash flows of each derivative. Natural gas forward rates, foreign exchange rates and interest rates are the significant inputs into the valuation models. The Company also evaluates counterparty risk in determining fair values. This analysis reflects the contractual terms of the derivatives, including the period to maturity, and uses observable market-based inputs, including interest rate curves and implied volatilities. The fair values of interest rate swaps are determined using the market standard methodology of netting the discounted future fixed cash receipts (or payments) and the discounted expected variable cash payments (or receipts). The variable cash payments (or receipts) are based on an expectation of future interest rates (forward curves) derived from observable market interest rate curves. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the Company classifies its derivative assets and liabilities as Level 2 in the hierarchy.

Commodity Forward Contracts Designated as Cash Flow Hedges

The Company enters into commodity forward contracts related to forecasted natural gas requirements, the objectives of which are to limit the effects of fluctuations in the future market price paid for natural gas and the related volatility in cash flows.

An unrecognized gain of $1 million at December 31, 2018 and an unrecognized gain of $3 million at December 31, 2017, related to the commodity forward contracts were included in Accumulated OCI, and will be reclassified into earnings in the period when the commodity forward contracts expire.

Foreign Exchange Derivative Contracts Not Designated as Hedging Instruments

The Company uses short-term forward exchange or option agreements to purchase foreign currencies at set rates in the future. These agreements are used to limit exposure to fluctuations in foreign currency exchange rates for significant planned purchases of fixed assets or commodities that are denominated in currencies other than the subsidiaries' functional currency. The Company also uses foreign exchange agreements to offset the foreign

currency risk for receivables and payables, including intercompany receivables, payables, and loans, not denominated in, or indexed to, their functional currencies.

Cash Flow Hedges of Foreign Exchange Risk

The Company has variable-interest rate borrowings denominated in currencies other than the functional currency of the borrowing subsidiaries. As a result, the Company is exposed to fluctuations in the currency of the borrowing against the subsidiaries' functional currency. The Company uses derivatives to manage these exposures and designates these derivatives as cash flow hedges of foreign exchange risk.

During 2018, two of the Company's subsidiaries, a New Zealand dollar functional currency subsidiary and an Australian dollar functional currency subsidiary, entered into a series of cross-currency swaps to U.S. dollar instruments with a fixed notional amount of $109 million and $168 million, respectively. They reach final maturity in 2022. During 2017, one of the Company's Euro-functional subsidiaries entered into a series of cross-currency swaps that have a pay fixed notional amount of €263 million and a receive notional amount of $310 million. They reach final maturity in 2023.

An unrecognized loss of $9 million at December 31, 2018 and an unrecognized loss of less than $1 million at December 31, 2017, related to these cross-currency swaps, were included in Accumulated OCI, and will be reclassified into earnings within the next twelve months.

Interest Rate Swaps Designated as Fair Value Hedges

The Company enters into interest rate swaps in order to maintain a capital structure containing targeted amounts of fixed and floating-rate debt and manage interest rate risk. The Company's fixed-to-variable interest rate swaps are accounted for as fair value hedges. The relevant terms of the swap agreements match the corresponding terms of the notes and therefore there is no hedge ineffectiveness. The Company recorded the net of the fair market values of the swaps as a long-term liability and short-term asset along with a corresponding net decrease in the carrying value of the hedged debt.

Cash Flow Hedges of Interest Rate Risk

The Company enters into interest rate swaps in order to maintain a capital structure containing targeted amounts of fixed and floating-rate debt and manage interest rate risk. Interest rate swaps designated as cash flow hedges involve the receipt of variable amounts from a counterparty in exchange for the Company making fixed-rate payments. These interest rate swap agreements were used to hedge the variable cash flows associated with variable-rate debt.

An unrecognized loss of less than $1 million at year ended December 31, 2018 related to these interest rate swaps, was included in Accumulated OCI, and will be reclassified into earnings within the next twelve months.

Net Investment Hedges

The Company is exposed to fluctuations in foreign exchange rates on investments it holds in non-U.S. subsidiaries and uses cross currency swaps to partially hedge this exposure.

Balance Sheet Classification

The following table shows the amount and classification (as noted above) of the Company's derivatives at December 31, 2018 and 2017:

	Notional Amount		Fair Value of Hedge Assets		Fair Value of Hedge Liabilities		Maximum Maturity Date	
	2018	2017	2018	2017	2018	2017	2018	2017
Derivatives designated as hedging instruments:								
Commodity forward contracts	$ 21	$ 30	$ 1	$ 3	$ —	$ 13	various	various
Interest rate swaps (fair value hedges)	€ 725	€ 725	6	6	1	10	2024	2024
Cash flow hedges of foreign exchange risk	$ 587	$ 310	10	4	1		various	various
Interest rate swaps (cash flow hedges)	$ 180						2020	
Net investment hedges	€ 160		6		8		2020	
Total derivatives accounted for as hedges			$ 23	$ 13	$ 10	$ 23		
Derivatives not designated as hedges:								
Foreign exchange derivative contracts	$ 470	$ 460	2	4	2	1	various	various
Total derivatives			$ 25	$ 17	$ 12	$ 24		
Current			$ 19	$ 14	$ 3	$ —		
Noncurrent			6	3	9	24		
Total derivatives			$ 25	$ 17	$ 12	$ 24		

The effects of derivative instruments on the Company's Consolidated Statements of Income and Comprehensive Income for OCI for the years ended December 31, 2018, 2017 and 2016 are as follows:

	Gain (Loss) Recognized in OCI (Effective Portion)			Gain (Loss) Reclassified from Accumulated OCI into Income (Effective Portion) (1)		
Derivatives designated as hedging instruments:	2018	2017	2016	2018	2017	2016
Cash Flow Hedges						
Commodity forward contracts (a)	$ (6)	$ 6	$ 7	$ 1	$ -	$ -
Cash flow hedges of foreign exchange risk (b)	12			9		
Cash flow hedges of interest rate risk (c)	(1)					
Net Investment Hedges						
Net Investment Hedges	5			1		
	$ 10	$ 6	$ 7	$ 11	$ —	$ —

	Amount of Gain (Loss) Recognized in Other income (expense), net		
Derivatives not designated as hedges:	2018	2017	2016
Foreign exchange derivative contracts	$ 1	$ 10	$ 6

(1) Gains and losses reclassified from accumulated OCI and recognized in income are recorded to (a) cost of goods sold, (b) other expense, net or (c) interest expense, net.

9. Restructuring

The Company continually reviews its manufacturing footprint and operating cost structure and may decide to close operations or reduce headcount to gain efficiencies, integrate acquired operations, reduce future expenses and address other market factors. The Company incurs costs associated with these actions including employee severance and benefits, other exit costs such as those related to contract terminations, and asset impairment charges. The Company also may incur other costs related to closed facilities including environmental remediation, clean up, dismantling and preparation for sale or other disposition.

The Company accounts for restructuring and other costs under applicable provisions of generally accepted accounting principles. Charges for employee severance and related benefits are generally accrued based on contractual arrangements with employees or their representatives. Other exit costs are accrued based on the estimated cost to settle related contractual arrangements. Estimated environmental remediation costs are accrued when specific claims have been received or are probable of being received.

The Company's decisions to curtail selected production capacity have resulted in write downs of certain long-lived assets to the extent their carrying amounts exceeded fair value or fair value less cost to sell. The Company classified the significant assumptions used to determine the fair value of the impaired assets in the period that the measurement was taken as Level 3 (third party appraisal) in the fair value hierarchy as set forth in the general accounting principles for fair value measurements. For the asset impairments recorded through December 31, 2018 and December 31, 2017, the remaining carrying value of the impaired assets was approximately $9 million and $0, respectively.

When a decision is made to take restructuring actions, the Company manages and accounts for them programmatically apart from the on-going operations of the business. Information related to major programs are presented separately while minor initiatives are presented on a combined basis. As of December 31, 2018 and 2017, no major restructuring programs were in effect.

In 2018, the Company implemented several discrete restructuring initiatives and recorded restructuring, asset impairment and other charges of $92 million. These charges consisted of employee costs, write-down of assets, and other exit costs primarily related to plant and furnace closures in the Americas region. These restructuring charges were discrete actions and are expected to approximate the total cumulative costs for those actions as no significant additional costs are expected to be incurred. These restructuring charges primarily relate to capacity curtailments and the Company reallocated the products produced at these facilities to other facilities. These charges were recorded to Cost of goods sold ($5 million) and Other expense, net ($87 million) on the Consolidated Results of Operations. The Company expects that the majority of the remaining cash expenditures related to the above charges will be paid out by the end of 2019.

In 2017, the Company implemented several discrete restructuring initiatives and recorded restructuring, asset impairment and other charges of $72 million. These charges consisted of employee costs, write-down of assets, and other exit costs primarily related to a plant closure in the Americas region. These restructuring charges were discrete actions and are expected to approximate the total cumulative costs for those actions as no significant additional costs are expected to be incurred. These restructuring charges primarily relate to capacity curtailments and the Company reallocated the products produced at these facilities to other facilities. These charges were recorded to Other expense, net on the Consolidated Results of Operations. The Company expects that the majority of the remaining cash expenditures related to the above charges will be paid out by the end of 2019.

The following table presents information related to restructuring, asset impairment and other costs related to closed facilities from January 1, 2017 through December 31, 2018:

	Employee Costs	Asset Impairment	Other Exit Costs	Total Restructuring
Balance at January 1, 2017	$ 67	$	$ 18	$ 85
Charges	45	11	16	72
Write-down of assets to net realizable value		(11)		(11)
Net cash paid, principally severance and related benefits	(49)		(13)	(62)
Other, including foreign exchange translation	4		(3)	1
Balance at December 31, 2017	$ 67	$ —	$ 18	$ 85
Charges	20	60	12	92
Write-down of assets to net realizable value		(60)		(60)
Net cash paid, principally severance and related benefits	(24)		(8)	(32)
Transfers to other accounts			(4)	(4)
Other, including foreign exchange translation	(3)		(9)	(12)
Balance at December 31, 2018	$ 60	$ —	$ 9	$ 69

10. Pension Benefit Plans and Other Postretirement Benefits

Pension Benefit Plans

The Company has defined benefit pension plans covering a substantial number of employees located in the United States and several other non-U.S. jurisdictions. Benefits generally are based on compensation for salaried employees and on length of service for hourly employees. The Company's policy is to fund pension plans such that sufficient assets will be available to meet future benefit requirements. The Company's defined benefit pension plans use a December 31 measurement date.

The changes in the pension benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Obligations at beginning of year	$ 1,650	$ 1,956	$ 1,148	$ 1,235
Change in benefit obligations:				
Service cost	14	14	15	15
Interest cost	59	78	32	40
Actuarial (gain) loss, including the effect of change in discount rates	(108)	123	(23)	(15)
Settlements	(114)	(393)	(35)	(171)
Participant contributions			2	1
Benefit payments	(91)	(128)	(51)	(60)
Other	3		(2)	
Foreign currency translation			(64)	103
Net change in benefit obligations	(237)	(306)	(126)	(87)
Obligations at end of year	$ 1,413	$ 1,650	$ 1,022	$ 1,148

The changes in the fair value of the pension plans' assets for the year are as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Fair value at beginning of year	$ 1,394	$ 1,654	$ 975	$ 1,011
Change in fair value:				
Actual gain (loss) on plan assets	(96)	254	(15)	87
Benefit payments	(91)	(128)	(51)	(60)
Employer contributions	1	7	33	24
Participant contributions			2	1
Settlements	(114)	(393)	(35)	(171)
Foreign currency translation			(58)	83
Other			(8)	
Net change in fair value of assets	(300)	(260)	(132)	(36)
Fair value at end of year	$ 1,094	$ 1,394	$ 843	$ 975

The Company recognizes the funded status of each pension benefit plan on the balance sheet. The funded status of each plan is measured as the difference between the fair value of plan assets and actuarially calculated benefit obligations as of the balance sheet date. Actuarial gains and losses are accumulated in Other Comprehensive Income and the portion of each plan that exceeds 10% of the greater of that plan's assets or projected benefit obligation is amortized to income on a straight-line basis over the average remaining service period of employees still accruing benefits or the expected life of participants not accruing benefits if all, or almost all, of the plan's participants are no longer accruing benefits.

The funded status of the pension plans at year end is as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Plan assets at fair value	$ 1,094	$ 1,394	$ 843	$ 975
Projected benefit obligations	1,413	1,650	1,022	1,148
Plan assets less than projected benefit obligations	(319)	(256)	(179)	(173)
Items not yet recognized in pension expense:				
Actuarial loss	785	811	285	284
Prior service cost (credit)		1	4	(2)
	785	812	289	282
Net amount recognized	$ 466	$ 556	$ 110	$ 109

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2018 and 2017 as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Pension assets	$ —	$ —	$ 44	$ 49
Current pension liability, included with other accrued liabilities	(3)	(2)	(5)	(5)
Pension benefits	(316)	(254)	(218)	(217)
Accumulated other comprehensive loss	785	812	289	282
Net amount recognized	$ 466	$ 556	$ 110	$ 109

The following changes in plan assets and benefit obligations were recognized in accumulated other comprehensive income at December 31, 2018 and 2017 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Current year actuarial (gain) loss	$ 86	$ (2)	$ 43	$ (40)
Amortization of actuarial loss	(51)	(57)	(11)	(16)
Settlement	(61)	(176)	(13)	(42)
Other	(1)		6	
	(27)	(235)	25	(98)
Translation			(18)	30
Change in accumulated other comprehensive income	$ (27)	$ (235)	$ 7	$ (68)

The accumulated benefit obligation for all defined benefit pension plans was $2,379 million and $2,735 million at December 31, 2018 and 2017, respectively.

The components of the net pension expense for the year are as follows:

	U.S.			Non-U.S.		
	2018	2017	2016	2018	2017	2016
Service cost	$ 14	$ 14	$ 15	$ 15	$ 15	$ 16
Interest cost	59	78	90	32	40	44
Expected asset return	(98)	(128)	(149)	(52)	(63)	(65)
Amortization:						
Actuarial loss	51	57	67	11	16	13
Net expense	$ 26	$ 21	$ 23	$ 6	$ 8	$ 8

Effective January 1, 2016, the Company amended its salary pension plan in North America to freeze future pension benefits. This action required an obligation remeasurement for the curtailment of benefits, which resulted in a reduction of the Company's pension expense.

In 2018, the Company settled a portion of its pension obligations in the U.S. and the United Kingdom, resulting in settlement charges of $61 million and $13 million, respectively. A retiree annuity contract purchase transaction in the U.S. amounting to approximately $94 million gave rise to the majority of the settlement charges, with lump-sum payments directly to plan participants comprising the remainder. In 2017, the Company settled a portion of its pension obligations in the U.S., Canada and the United Kingdom, resulting in settlement charges of $176 million, $27 million and $15 million, respectively. Retiree annuity contract purchase transactions in the U.S. and Canada amounting to approximately $369 million and $123 million, respectively, with several insurers, gave rise to the majority of the settlement transactions, with lump-sum payments directly to plan participants comprising the remainder. In 2016, the Company settled a portion of its U.S. pension obligation via a retiree annuity contract purchase of approximately $200 million, which resulted in a settlement charge of $98 million.

The components of pension expense, other than the service cost component, as well as pension settlement charges are included in Other expense, net on the Consolidated Results of Operations.

Amounts that are expected to be amortized from accumulated other comprehensive income into net pension expense during 2019:

	U.S.	Non-U.S.
Actuarial loss	$ 40	$ 10

The following information is for plans with projected and accumulated benefit obligations in excess of the fair value of plan assets at year end:

	Projected Benefit Obligation Exceeds the Fair Value of Plan Assets				Accumulated Benefit Obligation Exceeds the Fair Value of Plan Assets			
	U.S.		Non-U.S.		U.S.		Non-U.S.	
	2018	2017	2018	2017	2018	2017	2018	2017
Projected benefit obligations	$ 1,413	$ 1,650	$ 815	$ 905	$ 1,413	$ 1,650	$ 815	$ 261
Accumulated benefit obligation	1,412	1,650	793	878	1,412	1,650	793	241
Fair value of plan assets	1,094	1,394	591	682	1,094	1,394	591	39

The weighted average assumptions used to determine benefit obligations are as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Discount rate	4.36 %	3.69 %	3.01 %	2.76 %
Rate of compensation increase	N/A	N/A	2.75 %	2.78 %

The weighted average assumptions used to determine net periodic pension costs are as follows:

	U.S.			Non-U.S.		
	2018	2017	2016	2018	2017	2016
Discount rate	3.69 %	4.17 %	4.43 %	2.76 %	2.94 %	3.68 %
Rate of compensation increase	N/A	N/A	N/A %	2.78 %	2.90 %	2.84 %
Expected long-term rate of return on assets	7.25 %	7.50 %	7.50 %	5.52 %	6.32 %	7.15 %

Future benefits are assumed to increase in a manner consistent with past experience of the plans, which, to the extent benefits are based on compensation, includes assumed salary increases as presented above.

For 2018, the Company's weighted average expected long-term rate of return on assets was 7.25% for the U.S. plans and 5.52% for the non-U.S. plans. In developing this assumption, the Company considered its historical 10-year average return (through December 31, 2018) and evaluated input from its third party pension plan asset consultants, including their review of asset class return expectations.

It is the Company's policy to invest pension plan assets in a diversified portfolio consisting of an array of asset classes within established target asset allocation ranges. The investment risk of the assets is limited by appropriate diversification both within and between asset classes. Plan assets are primarily invested in a broad mix of domestic and international equities, domestic and international bonds, and real estate, subject to target asset allocation ranges, which may differ by individual plan. The assets are managed with a view to ensuring that sufficient liquidity will be available to meet expected cash flow requirements.

The investment valuation policy of the Company is to value investments at fair value. Equity securities for which market quotations are readily available are valued at the last reported sales price on their principal exchange on valuation date or official close for certain markets. Fixed income investments are valued by an independent pricing service. Investments in registered investment companies or collective pooled funds are valued at their respective net asset values. Short-term investments are stated at amortized cost, which approximates fair value. The fair value of real estate is determined by periodic appraisals.

The assets of the U.S. plans are maintained in a group trust. The U.S. plans hold no individual assets other than the investment in the group trust. The Company's U.S. pension plan assets held in the group trust are measured at net asset value in the fair value hierarchy. The total U.S. plan assets amounted to $1,094 million and $1,394 million as of December 31, 2018 and 2017, respectively. In 2018, the group trust assets consisted of approximately 62% equity securities, 32% debt securities, and 6% real estate and other.

In 2018, the non-U.S. plan assets consisted of approximately 16% equity securities, 60% debt securities, and 24% real estate and other. The following table sets forth by level, within the fair value hierarchy, the Company's non-U.S. pension plan assets at fair value as of December 31, 2018 and 2017:

	2018				2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	$ 9	$ —	$ —	$ 9	$ 9	$ —	$ —	$ 9
Equity securities				—				—
Debt securities	34	7		41	33			33
Real estate				—				—
Other		30		30		27		27
Total	$ 43	$ 37	$ —		$ 42	$ 27	$ —	
Investments measured at net asset value				$ 763				$ 906
Total non-U.S. assets at fair value				$ 843				$ 975

The following is a reconciliation of the Company's pension plan assets recorded at fair value using significant unobservable inputs (Level 3):

	2018	2017
Beginning balance	$ —	$ 10
Net increase (decrease)		(10)
Ending balance	$ —	$ —

The net increase (decrease) in the fair value of the Company's Level 3 pension plan assets is primarily due to purchases and sales of unlisted real estate funds. The change in the fair value of Level 3 pension plan assets due to actual return on those assets was immaterial in 2018.

In order to maintain minimum funding requirements, the Company is required to make contributions to its defined benefit pension plans of approximately $36 million in 2019.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2019	$ 102	$ 47
2020	100	48
2021	99	51
2022	99	54
2023	97	56
2024-2028	463	279

The Company also sponsors several defined contribution plans for all salaried and hourly U.S. employees, and employees in Canada, the United Kingdom, the Netherlands and Australia. Participants' contributions are based on their compensation. The Company matches contributions of participants, up to various limits, in substantially all plans. Company contributions to these plans amounted to $36 million in 2018, $33 million in 2017, and $34 million in 2016.

Postretirement Benefits Other Than Pensions

The Company provides retiree health care and life insurance benefits covering certain U.S. salaried and hourly employees, and substantially all employees in Canada. Benefits provided by the Company for hourly retirees are determined by collective bargaining. Employees are generally eligible for benefits upon retirement

and completion of a specified number of years of creditable service. The Company uses a December 31 measurement date to measure its postretirement benefit obligations.

The changes in the postretirement benefit obligations for the year are as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Obligations at beginning of year	$ 89	$ 92	$ 89	$ 81
Change in benefit obligations:				
Service cost			1	1
Interest cost	3	4	3	3
Actuarial (gain) loss, including the effect of changing discount rates	(9)		(4)	1
Benefit payments	(9)	(7)	(2)	(2)
Foreign currency translation			(7)	5
Other				
Net change in benefit obligations	(15)	(3)	(9)	8
Obligations at end of year	$ 74	$ 89	$ 80	$ 89

The funded status of the postretirement benefit plans at year end is as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Postretirement benefit obligations	$ (74)	$ (89)	$ (80)	$ (89)
Items not yet recognized in net postretirement benefit cost:				
Actuarial gain (loss)	(8)	(19)	(2)	(7)
Prior service credit	15	22		
	7	3	(2)	(7)
Net amount recognized	$ (67)	$ (86)	$ (82)	$ (96)

The net amount recognized is included in the Consolidated Balance Sheets at December 31, 2018 and 2017 as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Current nonpension postretirement benefit, included with Other accrued liabilities	$ (6)	$ (8)	$ (3)	$ (3)
Nonpension postretirement benefits	(68)	(81)	(77)	(86)
Accumulated other comprehensive income (loss)	7	3	(2)	(7)
Net amount recognized	$ (67)	$ (86)	$ (82)	$ (96)

The following changes in benefit obligations were recognized in accumulated other comprehensive income at December 31, 2018 and 2017 as follows (amounts are pretax):

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Current year actuarial (gain) loss	$ (8)	$ —	$ (4)	$ 1
Amortization of actuarial loss	(2)	(2)		
Amortization of prior service credit	7	8		
	$ (3)	$ 6	$ (4)	$ 1

The components of the net postretirement benefit cost for the year are as follows:

	U.S.			Non-U.S.		
	2018	2017	2016	2018	2017	2016
Service cost	$ —	$ —	$ —	$ 1	$ 1	$ 1
Interest cost	3	4	4	3	3	3
Amortization:						
Actuarial loss	2	2	2			
Prior service credit	(7)	(8)	(8)			
Net amortization	(5)	(6)	(6)	—	—	—
Net postretirement benefit (income) cost	$ (2)	$ (2)	$ (2)	$ 4	$ 4	$ 4

Amounts that are expected to be amortized from accumulated other comprehensive income into net postretirement benefit cost during 2019:

	U.S.	Non-U.S.
Amortization:		
Actuarial loss	$ 1	$ —
Prior service credit	(8)	
Net amortization	$ (7)	$ —

Amortization included in net postretirement benefit cost is based on the average remaining service of employees. The weighted average discount rates used to determine the accumulated postretirement benefit obligation and net postretirement benefit cost are as follows:

	U.S.			Non-U.S.		
	2018	2017	2016	2018	2017	2016
Accumulated postretirement benefit obligation	4.30 %	3.61 %	4.11 %	3.60 %	3.35 %	3.55 %
Net postretirement benefit cost	3.61 %	4.11 %	4.35 %	3.35 %	3.55 %	3.80 %

The weighted average assumed health care cost trend rates at December 31 are as follows:

	U.S.		Non-U.S.	
	2018	2017	2018	2017
Health care cost trend rate assumed for next year	6.00 %	6.20 %	5.00 %	5.00 %
Rate to which the cost trend rate is assumed to decline (ultimate trend rate)	5.00 %	5.00 %	5.00 %	5.00 %
Year that the rate reaches the ultimate trend rate	2025	2024	N/A	N/A

Assumed health care cost trend rates affect the amounts reported for the postretirement benefit plans. A one-percentage-point change in assumed health care cost trend rates would have the following effects:

	U.S.		Non-U.S.	
	1-Percentage-Point		1-Percentage-Point	
	Increase	Decrease	Increase	Decrease
Effect on total of service and interest cost	$ —	$ —	$ 1	$ (1)
Effect on accumulated postretirement benefit obligations	3	(2)	14	(11)

Amortization included in net postretirement benefit cost is based on the average remaining service of employees.

The following estimated future benefit payments, which reflect expected future service, as appropriate, are expected to be paid in the years indicated:

Year(s)	U.S.	Non-U.S.
2019	$ 7	$ 3
2020	7	3
2021	6	3
2022	6	3
2023	6	4
2024 - 2028	25	19

Other U.S. hourly retirees receive health and life insurance benefits from a multi-employer trust established by collective bargaining. Payments to the trust as required by the bargaining agreements are based upon specified amounts per hour worked and were $6 million in 2018, $6 million in 2017 and $6 million in 2016. Postretirement health and life benefits for retirees of foreign subsidiaries are generally provided through the national health care programs of the countries in which the subsidiaries are located.

11. Income Taxes

The provision for income taxes was calculated based on the following components of earnings (loss) before income taxes:

Continuing operations	2018	2017	2016
U.S.	$ (100)	$ (43)	$ (27)
Non-U.S.	377	318	383
	$ 277	$ 275	$ 356

Discontinued operations	2018	2017	2016
U.S.	$ —	$ —	$ —
Non-U.S.	113	(3)	(7)
	$ 113	$ (3)	$ (7)

The provision (benefit) for income taxes consists of the following:

	2018	2017	2016
Current:			
U.S.	$ 8	$ (5)	$ —
Non-U.S.	109	87	123
	117	82	123
Deferred:			
U.S.	—	6	3
Non-U.S.	(9)	(18)	(7)
	(9)	(12)	(4)
Total:			
U.S.	8	1	3
Non-U.S.	100	69	116
Total for continuing operations	108	70	119
Total for discontinued operations	—	—	—
	$ 108	$ 70	$ 119

A reconciliation of the provision for income taxes based on the statutory U.S. Federal tax rate of 21% for 2018 and 35% for 2017 and 2016 to the provision for income taxes is as follows:

	2018	2017	2016
Tax provision on pretax earnings from continuing operations at statutory U.S. Federal tax rate	$ 58	$ 96	$ 124
Increase (decrease) in provision for income taxes due to:			
Non-U.S. tax rates	25	(29)	(22)
Global intangible low taxed income	32		
U.S. Tax Cuts and Jobs Act: transition tax, net of foreign tax credits	(2)	2	
Tax law changes	4	152	(3)
Change in valuation allowance: U.S. tax law change	(2)	(162)	
Change in valuation allowance: other	(18)	(283)	3
Tax attribute expiration	6	330	
Withholding tax	10	8	7
Non-deductible expenses	4	9	20
U.S. tax on intercompany dividends and interest	1	2	3
Tax exempt income	(2)	(3)	(2)
Intraperiod tax allocation			(8)
Tax credits and incentives	(23)	(37)	(19)
Changes in tax reserves	13	(18)	8
Mexico inflationary adjustments	8	13	6
Equity earnings	(13)	(13)	(9)
Intercompany financing	1	(4)	(5)
Other taxes based on income	7	10	11
Other items	(1)	(3)	5
Provision for income taxes	$ 108	$ 70	$ 119

Deferred income taxes reflect: (1) the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their relevant tax basis; and (2) carryovers and credits for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities at December 31, 2018 and 2017 are as follows:

	2018	2017
Deferred tax assets:		
Accrued postretirement benefits	$ 38	$ 44
Asbestos-related liabilities	127	122
Foreign tax credit carryovers	96	124
Operating and capital loss carryovers	286	342
Other credit carryovers	18	17
Accrued liabilities	65	69
Pension liabilities	92	77
Other	57	41
Total deferred tax assets	779	836
Deferred tax liabilities:		
Property, plant and equipment	97	101
Intangibles and deferred software	92	97
Total deferred tax liabilities	189	198
Valuation allowance	(495)	(543)
Net deferred taxes	$ 95	$ 95

Deferred taxes are included in the Consolidated Balance Sheets at December 31, 2018 and 2017 as follows:

	2018	2017
Other assets	$ 191	$ 194
Deferred taxes	(96)	(99)
Net deferred taxes	$ 95	$ 95

The deferred tax benefit associated with the reduction in the valuation allowance of $48 million was primarily allocated $41 million to income from continuing operations due to the primacy of continuing operations, changes in tax law and expiration of certain tax attribute carryovers, and $7 million to other comprehensive income.

Deferred tax assets and liabilities are determined separately for each tax jurisdiction on a separate or on a consolidated tax filing basis, as applicable, in which the Company conducts its operations or otherwise incurs taxable income or losses. A valuation allowance is recorded when it is more likely than not that some portion or all of the gross deferred tax assets will not be realized. The realization of deferred tax assets depends on the ability to generate sufficient taxable income of the appropriate character within the carryback or carryforward periods provided for in the tax law for each applicable tax jurisdiction. The Company considers the following possible sources of taxable income when assessing the realization of deferred tax assets:

- taxable income in prior carryback years;
- future reversals of existing taxable temporary differences;
- future taxable income exclusive of reversing temporary differences and carryforwards; and
- prudent and feasible tax planning strategies that the Company would be willing to undertake to prevent a deferred tax asset from otherwise expiring.

The assessment regarding whether a valuation allowance is required or whether a change in judgment regarding the valuation allowance has occurred also considers all available positive and negative evidence, including but not limited to:

- nature, frequency, and severity of cumulative losses in recent years;
- duration of statutory carryforward and carryback periods;
- statutory limitations against utilization of tax attribute carryforwards against taxable income;
- historical experience with tax attributes expiring unused; and
- near- and medium-term financial outlook.

The weight given to the positive and negative evidence is commensurate with the extent to which the evidence may be objectively verified. Accordingly, it is generally difficult to conclude a valuation allowance is not required when there is significant objective and verifiable negative evidence, such as cumulative losses in recent years. The Company uses the actual results for the last two years and current year results as the primary measure of cumulative losses in recent years.

The evaluation of deferred tax assets requires judgment in assessing the likely future tax consequences of events recognized in the financial statements or tax returns and future profitability. The recognition of deferred tax assets represents the Company's best estimate of those future events. Changes in the current estimates, due to unanticipated events or otherwise, could have a material effect on the Company's results of operations and financial condition.

In certain tax jurisdictions, the Company's analysis indicates that it has cumulative losses in recent years. This is considered significant negative evidence which is objective and verifiable and, therefore, difficult to overcome. However, the cumulative loss position is not solely determinative and, accordingly, the Company considers all other available positive and negative evidence in its analysis. Based on its analysis, the Company has recorded a valuation allowance for the portion of deferred tax assets where based on the weight of available evidence it is unlikely to realize those deferred tax assets.

Based on the evidence available including a lack of sustainable earnings, the Company in its judgment previously recorded a valuation allowance against substantially all of its net deferred tax assets in the United States. If a change in judgment regarding this valuation allowance were to occur in the future, the Company will record a potentially material deferred tax benefit, which could result in a favorable impact on the effective tax rate in that period.

The U.S. Tax Cuts and Jobs Act ("Act") was enacted on December 22, 2017. The Act reduced the U.S. federal corporate tax rate to 21% from 35%, required companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred and created new taxes on certain foreign sourced earnings. In 2017 and the first nine months of 2018, the Company recorded provisional amounts for certain enactment-date effects of the Act by applying the guidance in SAB 118 because the Company had not yet completed its enactment-date accounting for these effects. At December 31, 2018, the Company has now completed its accounting for all of the enactment-date income tax effects of the Act. At December 31, 2017, the Company originally recorded a provisional amount for its one-time transition tax of $331 million, which was expected to be substantially offset by available foreign tax credits resulting in a provisional net tax expense of $2 million, primarily attributable to state taxes. Upon further analyses of certain aspects of the Act and refinement of its calculations during 2018, the Company decreased its provisional amount of transition tax by $17 million, to $314 million. This resulted in no change to U.S. federal income tax expense due to the impact of foreign tax credits. In addition, the provisional net tax expense, which was estimated at approximately $2 million, primarily attributable to state taxes, was substantially eliminated. The Company recognized this favorable adjustment of $2 million as a component of income tax expense from continuing operations.

As of December 31, 2017, the Company remeasured certain deferred tax assets and liabilities based on the rates at which they were expected to reverse in the future (which was generally 21%) and based on the expected future benefit to be realized as a result of changes to the tax base provided in the Act. The Company recorded a provisional net tax charge of $162 million related to the remeasurement of net deferred tax assets, which was fully offset by an adjustment to valuation allowance. Upon further analysis of certain aspects of the Act and refinement of its calculations during 2018, the Company adjusted its provisional amount by $2 million, which is fully offset by an adjustment to valuation allowance. Additionally, as of December 31, 2017, the Company recorded a provisional deferred tax benefit of $11 million for the reduction of a deferred tax liability related to an indefinite lived intangible asset. No adjustment was made to this provisional amount.

At December 31, 2018, before valuation allowance, the Company had unused foreign tax credits of $96 million expiring in 2020 through 2027 and research tax credits of $17 million expiring from 2019 to 2037. Approximately $146 million of the deferred tax assets related to operating and capital loss carryforwards can be carried over indefinitely, with the remaining $140 million expiring between 2019 and 2038. Approximately $14 million of other deferred tax assets are related to interest carryforwards that can be carried over indefinitely.

As a result of the Act, in 2018, the Company has had a change in judgement regarding the gross book-tax basis differences in its non-U.S. consolidated subsidiaries. Since a majority of the pre-2018 non-U.S. earnings (net of losses) were substantially taxed under the Act, distributions of those net earnings no longer attract significant U.S. income taxes except for any associated currency gains. Therefore, the Company does not assert that these net earnings (to the extent of foreign distributable reserves) and any associated gross book-tax basis differences, if any, are indefinitely reinvested. For all remaining gross book-tax basis differences in its non-U.S. consolidated subsidiaries, the Company maintains its assertion that it intends these to be indefinitely reinvested. The Company also records deferred foreign taxes on gross book-tax basis differences to the extent of foreign distributable reserves for certain foreign subsidiaries. Determining the amount of unrecognized deferred tax liability related to any remaining undistributed foreign earnings is not practicable.

The Company records a liability for unrecognized tax benefits related to uncertain tax positions. The Company accrues interest and penalties associated with unrecognized tax benefits as a component of its income tax expense.

The following is a reconciliation of the Company's total gross unrecognized tax benefits for the years ended December 31, 2018, 2017, and 2016:

	2018	2017	2016
Balance at January 1	$ 79	$ 74	$ 74
Additions and reductions for tax positions of prior years	(4)	1	
Additions based on tax positions related to the current year	15	17	15
Reductions due to the lapse of the applicable statute of limitations		(7)	(3)
Reductions due to settlements		(9)	(12)
Foreign currency translation	(3)	3	
Balance at December 31	$ 87	$ 79	$ 74
Unrecognized tax benefits, which if recognized, would impact the Company's effective income tax rate	$ 78	$ 72	$ 66
Accrued interest and penalties at December 31	$ 10	$ 8	$ 23
Interest and penalties included in tax expense for the years ended December 31	$ 2	$ (15)	$ (2)

Based upon the outcome of tax examinations, judicial proceedings, or expiration of statute of limitations, it is reasonably possible that the ultimate resolution of these unrecognized tax benefits may result in a payment that is materially different from the current estimate of the tax liabilities. The Company believes that it is reasonably

possible that the estimated liability could decrease up to $8 million within the next 12 months. This is primarily the result of anticipated audit settlements or statute expirations in several taxing jurisdictions.

The Company is currently under income tax examination in various tax jurisdictions in which it operates, including Bolivia, Brazil, Canada, Colombia, France, Germany, Indonesia and Italy. The years under examination range from 2004 through 2017. The Company has received tax assessments in excess of established reserves. The Company is contesting these tax assessments, and will continue to do so, including pursuing all available remedies such as appeals and litigation, if necessary.

The Company believes that adequate provisions for all income tax uncertainties have been made. However, if tax assessments are settled against the Company at amounts in excess of established reserves, it could have a material impact to the Company's results of operations, financial position or cash flows. During 2018, the Company concluded income tax audits in several jurisdictions, including Czech Republic, France, Germany and Indonesia.

12. Debt

The following table summarizes the long-term debt of the Company at December 31, 2018 and 2017:

	2018	2017
Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans	$ —	$ —
Term Loans:		
Term Loan A	897	
Previous Secured Credit Agreement:		
Revolving Credit Facility:		
Revolving Loans		
Term Loans:		
Term Loan A		1,148
Other secured debt	404	
Senior Notes:		
6.75%, due 2020 (€500 million)	570	594
4.875%, due 2021 (€330 million)	376	392
5.00%, due 2022	497	496
4.00%, due 2023	306	305
5.875%, due 2023	688	685
3.125%, due 2024 (€725 million)	825	849
6.375%, due 2025	295	295
5.375%, due 2025	297	297
Capital leases	45	54
Other	14	17
Total long-term debt	5,214	5,132
Less amounts due within one year	33	11
Long-term debt	$ 5,181	$ 5,121

On June 27, 2018, certain of the Company's subsidiaries entered into a new Senior Secured Credit Facility (the "Agreement"), which amended and restated the previous credit agreement (the "Previous Agreement"). The proceeds from the Agreement were used to repay all outstanding amounts under the Previous Agreement. The Company recorded $11 million of additional interest charges for the write-off of unamortized fees during 2018.

The Agreement provides for up to $1.91 billion of borrowings pursuant to term loans and revolving credit facilities. The term loans mature, and the revolving credit facilities terminate, in June 2023. At December 31, 2018, the Agreement includes a $300 million revolving credit facility, a $700 million multicurrency revolving credit facility, and a $910 million term loan A facility ($897 million net of debt issuance costs). At December 31, 2018, the Company had unused credit of $988 million available under the Agreement. The weighted average interest rate on borrowings outstanding under the Agreement at December 31, 2018 was 3.97%.

The Agreement contains various covenants that restrict, among other things and subject to certain exceptions, the ability of the Company to incur certain indebtedness and liens, make certain investments, become liable under contingent obligations in certain defined instances only, make restricted payments, make certain asset sales within guidelines and limits, engage in certain affiliate transactions, participate in sale and leaseback financing arrangements, alter its fundamental business, and amend certain subordinated debt obligations.

The Agreement also contains one financial maintenance covenant, a Total Leverage Ratio (the "Leverage Ratio"), that requires the Company not to exceed a ratio of 4.5x calculated by dividing consolidated total debt, less cash and cash equivalents, by Consolidated EBITDA, as defined in the Agreement. The maximum Leverage Ratio is subject to an increase of 0.5x for (i) any fiscal quarter during which certain qualifying acquisitions (as specified in the Agreement) are consummated and (ii) the following three fiscal quarters. The Leverage Ratio could restrict the ability of the Company to undertake additional financing or acquisitions to the extent that such financing or acquisitions would cause the Leverage Ratio to exceed the specified maximum.

Failure to comply with these covenants and other customary restrictions could result in an event of default under the Agreement. In such an event, the Company could not request borrowings under the revolving facilities, and all amounts outstanding under the Agreement, together with accrued interest, could then be declared immediately due and payable. Upon the occurrence and for the duration of a payment event of default, an additional default interest rate equal to 2.0% per annum will apply to all overdue obligations under the Agreement. If an event of default occurs under the Agreement and the lenders cause all of the outstanding debt obligations under the Agreement to become due and payable, this would result in a default under a number of other outstanding debt securities and could lead to an acceleration of obligations related to these debt securities. As of December 31, 2018, the Company was in compliance with all covenants and restrictions in the Agreement. In addition, the Company believes that it will remain in compliance and that its ability to borrow funds under the Agreement will not be adversely affected by the covenants and restrictions.

The Leverage Ratio also determines pricing under the Agreement. The interest rate on borrowings under the Agreement is, at the Company's option, the Base Rate or the Eurocurrency Rate, as defined in the Agreement, plus an applicable margin. The applicable margin is linked to the Leverage Ratio. The margins range from 1.00% to 1.50% for Eurocurrency Rate loans and from 0.00% to 0.50% for Base Rate Loans. In addition, a commitment fee is payable on the unused revolving credit facility commitments ranging from 0.20% to 0.30% per annum linked to the Leverage Ratio.

Obligations under the Agreement are secured by substantially all of the assets, excluding real estate and certain other excluded assets, of certain of the Company's domestic subsidiaries and certain foreign subsidiaries. Such obligations are also secured by a pledge of intercompany debt and equity investments in certain of the Company's domestic subsidiaries and, in the case of foreign obligations, of stock of certain foreign subsidiaries. All obligations under the Agreement are guaranteed by certain domestic subsidiaries of the Company, and certain foreign obligations under the Agreement are guaranteed by certain foreign subsidiaries of the Company.

In March 2017, the Company expanded its borrowings under the Senior Notes due 2024 by issuing €225 million of additional notes that bear interest at 3.125% and are due November 15, 2024. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $237 million and were used to repay a portion of the Company's revolving credit facility.

During March 2017, the Company purchased in a tender offer approximately $228 million aggregate principal amount of its 7.80% Senior Debentures due in 2018. In November 2017, the remaining $22 million of the 7.80% Senior Debentures were repurchased by the Company, the indenture relating thereto was discharged, and all collateral and guarantees thereunder were released. The Company recorded $18 million of additional interest charges for note repurchase premiums and the write-off of unamortized finance fees related to these actions.

During December 2017, the Company issued senior notes with a face value of $310 million that bear interest at 4.00% and are due March 15, 2023. The notes were issued via a private placement and are guaranteed by certain of the Company's domestic subsidiaries. The net proceeds, after deducting debt issuance costs, totaled approximately $305 million and were used to repay a portion of the term loan A facility under the Previous Agreement.

In the third quarter of 2018, the Company terminated a €185 million European accounts receivable securitization program.

In order to maintain a capital structure containing appropriate amounts of fixed and floating-rate debt, the Company has entered into a series of interest rate swap agreements. These interest rate swap agreements were accounted for as either fair value hedges or cash flow hedges (see Note 8 for more information).

The Company assesses its capital raising and refinancing needs on an ongoing basis and may enter into additional credit facilities and seek to issue equity and/or debt securities in the domestic and international capital markets if market conditions are favorable. Also, depending on market conditions, the Company may elect to repurchase portions of its debt securities in the open market.

Annual maturities for all of the Company's long-term debt through 2023 and thereafter are as follows: 2019, $33 million; 2020, $1,018 million; 2021, $431 million; 2022, $549 million; 2023, $1,749 million; and 2024 and thereafter $1,434 million.

The carrying amounts reported for certain long-term debt obligations subject to frequently redetermined interest rates, approximate fair value. Fair values for the Company's significant fixed rate debt obligations are based on published market quotations, and are classified as Level 1 in the fair value hierarchy. Fair values at December 31, 2018, of the Company's significant fixed rate debt obligations are as follows:

	Principal Amount	Indicated Market Price	Fair Value
Senior Notes:			
6.75%, due 2020 (€500 million)	$ 571	$ 108.96	$ 622
4.875%, due 2021 (€330 million)	377	107.28	404
5.00%, due 2022	500	99.46	497
5.875%, due 2023	700	102.02	714
4.00%, due 2023	310	94.12	292
3.125%, due 2024 (€725 million)	828	98.88	819
6.375%, due 2025	300	100.99	303
5.375%, due 2025	300	97.08	291

13. Contingencies

Asbestos

From 1948 to 1958, one of the Company's former business units commercially produced and sold approximately $40 million of a high-temperature, calcium-silicate based pipe and block insulation material containing asbestos. The Company sold its insulation business unit in April 1958. The Company receives claims from individuals alleging bodily injury and death as a result of exposure to asbestos from this product ("Asbestos Claims"). Some Asbestos Claims are brought as personal injury lawsuits that typically allege various theories of

liability, including negligence, gross negligence and strict liability and seek compensatory and, in some cases, punitive damages.

Predominantly, however, Asbestos Claims are presented to the Company under administrative claims-handling agreements, which the Company has in place with many plaintiffs' counsel throughout the country ("Administrative Claims"). Administrative Claims require evaluation and negotiation regarding whether particular claimants qualify under the criteria established by the related claims-handling agreements. The criteria for Administrative Claims include verification of a compensable illness and a reasonable probability of exposure to a product manufactured by the Company's former business unit during its manufacturing period ending in 1958. Plaintiffs' counsel present, and the Company negotiates, Administrative Claims under these various agreements in differing quantities, at different times, and under a variety of conditions.

The following table shows the approximate number of plaintiffs who had asbestos lawsuits pending against the Company at the beginning of each listed year, the number of Asbestos Claims administratively presented or filed in the tort system, the number of Asbestos Claims disposed of during that year, and the number of lawsuits pending at the end of each listed year (eliminating duplicate filings):

	2018	2017	2016
Pending at beginning of year	1,330	1,400	2,080
Disposed	1,220	1,320	1,750
Filed	960	1,250	1,070
Pending at end of year	1,070	1,330	1,400

The pending lawsuit figures do not include an estimate of potential Administrative Claims that may be presented under a claims-handling agreement due to the uncertainties around presentation timing, quantities, or qualification rates. The Company considers Administrative Claims to be "Filed" and "Disposed" when they are accepted for payment.

The lack of uniform rules in lawsuit pleading practice, technical pleading requirement in some jurisdictions, local rules, and other factors cause considerable variation in the specific amounts of monetary damages asserted. In the Company's experience, the monetary relief alleged in a lawsuit bears little relationship to an Asbestos Claim's merits or its disposition value. Rather, several variables, including but not limited to, the type and severity of the asbestos disease, medical history, and exposure to other disease-causing agents; the product identification evidence against the Company and other co-defendants; the defenses available to the Company and other co-defendants; the specific jurisdiction in which the claim is made; the applicable law; and the law firm representing the claimant, affect the value.

The Company has also been a defendant in other Asbestos Claims involving maritime workers, medical monitoring, co-defendants' third-party actions, and property damage allegations. Based upon its experience, the Company believes that these categories of Asbestos Claims will not involve any material liability. Therefore, they are not included in the description of pending or disposed matters.

Since receiving its first Asbestos Claim, as of December 31, 2018, the Company in the aggregate has disposed of approximately 400,000 Asbestos Claims at an average indemnity payment of approximately $9,800 per claim. The Company's asbestos indemnity payments have varied on a per-claim basis and are expected to continue to vary considerably over time. Asbestos-related cash payments for 2018, 2017, and 2016 were $105 million, $110 million, and $125 million, respectively. The Company's cash payments per claim disposed (inclusive of legal costs) were approximately $86,000, $83,000 and $71,000 for the years ended December 31, 2018, 2017, and 2016, respectively.

The Company's objective is to achieve, where possible, resolution of Asbestos Claims pursuant to claims-handling agreements. Failure of claimants to meet certain medical and product exposure criteria in claims-handling agreements generally has reduced the number of claims that would otherwise have been received by the

Company in the tort system. In addition, changes in jurisdictional dynamics, legislative acts, asbestos docket management and procedures, the substantive law, the co-defendant pool, and other external factors have affected lawsuit volume, claim volume, qualification rates, claim values, and related matters. Collectively, these variables generally have had the effect of increasing the Company's per-claim average indemnity payment over time.

Beginning with the initial liability of $975 million established in 1993, the Company has accrued a total of approximately $5.0 billion through 2018, before insurance recoveries, for its asbestos-related liability. The Company's estimates of its liability have been significantly affected by, among other factors, the volatility of asbestos-related litigation in the United States, the significant number of co-defendants that have filed for bankruptcy, changes in mortality rates, the inherent uncertainty of future disease incidence and claiming patterns against the Company, the significant expansion of the types of defendants that are now sued in this litigation, and the continuing changes in the extent to which these defendants participate in the resolution of cases in which the Company is also a defendant.

The Company continues to monitor trends that may affect its ultimate liability and analyze the developments and variables likely to affect the resolution of Asbestos Claims against the Company. The material components of the Company's total accrued liability are determined by the Company in connection with its annual comprehensive legal review and consist of the following estimates, to the extent it is probable that such liabilities have been incurred and can be reasonably estimated: (i) the liability for Asbestos Claims already asserted against the Company; (ii) the liability for Asbestos Claims not yet asserted against the Company; and (iii) the legal defense costs estimated to be incurred in connection with the Asbestos Claims already asserted and those Asbestos Claims the Company believes will be asserted.

The Company conducts an annual comprehensive legal review of its asbestos-related liabilities and costs in connection with finalizing and reporting its annual results of operations, unless significant changes in trends or new developments warrant an earlier review. As part of its annual comprehensive legal review, the Company provides historical Asbestos Claims' data to a third party with expertise in determining the impact of disease incidence and mortality on future filing trends to develop information to assist the Company in estimating the total number of future Asbestos Claims likely to be asserted against the Company. The Company uses this estimate, along with an estimation of disposition costs and related legal costs, as inputs to develop its best estimate of its total probable liability. If the results of the annual comprehensive legal review indicate that the existing amount of the accrued liability is lower (higher) than its reasonably estimable asbestos-related costs, then the Company will record an appropriate charge (credit) to the Company's results of operations to increase (decrease) the accrued liability.

The significant assumptions underlying the material components of the Company's accrual are:

a) settlements will continue to be limited almost exclusively to claimants who were exposed to the Company's asbestos containing insulation prior to its exit from that business in 1958;

b) Asbestos Claims will continue to be resolved primarily under the Company's administrative claims-handling agreements or on terms comparable to those set forth in those agreements;

c) the incidence of serious asbestos-related disease cases and claiming patterns against the Company for such cases do not change materially;

d) the Company is substantially able to defend itself successfully at trial and on appeal;

e) the number and timing of additional co-defendant bankruptcies do not change significantly the assets available to participate in the resolution of cases in which the Company is a defendant; and

f) co-defendants with substantial resources and assets continue to participate significantly in the resolution of future Asbestos Claims.

For the years ended December 31, 2018 and 2017, the Company concluded that accruals in the amounts of $602 million and $582 million, respectively, were required. These amounts have not been discounted for the time value of money. The Company's comprehensive legal reviews resulted in charges of $125 million, $0 million and $0 million for the years ended December 31, 2018, 2017 and 2016, respectively. As previously disclosed, the Company anticipated that adjustments to its asbestos-related accruals were possible given the inherent uncertainties involved in asbestos litigation. In the fourth quarter of 2018, the Company determined that it was advantageous to accelerate the disposition of certain claims in light of additional information the Company obtained about higher estimated future claim volumes and values in certain of the affected discrete streams of potential liability. Factors impacting the increased likelihood of these additional losses included changes in the law, procedure, the expansion of judicial resources in certain jurisdictions, and renewed attention to dockets of non-mesothelioma cases. The Company also obtained new information about other Asbestos Claims, which had the effect of reducing its asbestos-related liability. The combined effect of these items resulted in a change in estimate of the Company's asbestos-related liability.

The Company believes that it is reasonably possible that it will incur a loss for its asbestos-related liabilities in excess of the amount currently recognized, which was $602 million as of December 31, 2018. The Company estimated that reasonably possible losses could result in asbestos-related liabilities of approximately $722 million. This estimate of additional reasonably possible loss reflects a qualitative judgment regarding the nature of contingencies that could impact future Asbestos Claims and legal costs, which include, but are not limited to, successful attempts by plaintiffs to challenge existing legal barriers to entry, enact plaintiff-oriented procedural rules or liability or damage-related legislation, establish new theories of liability, revive long-dormant inventories of non-mesothelioma cases, or leverage changing jurisdictional dynamics and a changing litigation environment to increase the volume of Asbestos Claims presented or per-claim indemnity values. However, it is also possible that the ultimate amount of asbestos-related liabilities could be above this estimate.

The Company expects a significant majority of the total number of Asbestos Claims to be received in the next five to seven years. This timeframe appropriately reflects the mortality of current and expected claimants in light of the Company's sale of its insulation business unit in 1958. The Company may continue to experience increased year-over-year variability with regard to the annual quantity of Asbestos Claims presented to and disposed by the Company. This increased variability, jurisdictional dynamics, a changing litigation environment, the size of the remaining pool of claimants, and the expected increase in mortality over the next five to seven years may present the Company with further opportunities to accelerate disposition of discrete parts of its claimant pool. These influences may create increased variability in the annual cash payments year-over-year.

The Company's asbestos-related liability is based on a projection of new Asbestos Claims that will eventually be filed against the Company and the estimated average disposition cost of these claims and related legal costs. Changes in these projections, and estimates, as well as changes in the significant assumptions noted above, have the potential to significantly impact the estimation of the Company's asbestos-related liability.

Other Matters

On July 5, 2016, the Company learned that the Enforcement Division of the Securities and Exchange Commission ("SEC") was conducting an investigation into certain accounting and control matters pertaining to the Company's determination of its asbestos-related liabilities. On May 13, 2016, the Company restated its consolidated financial statements for the years ended December 31, 2015, 2014 and 2013 in order to correct an error related to the Company's method for estimating its future asbestos-related liabilities. On May 11, 2018, the SEC informed the Company that it had concluded its investigation, and, based on the information the SEC had as of that date, it did not intend to recommend an enforcement action against the Company.

Other litigation is pending against the Company, in some cases involving ordinary and routine claims incidental to the business of the Company and in others presenting allegations that are non-routine and involve compensatory, punitive or treble damage claims as well as other types of relief. The Company records a liability

for such matters when it is both probable that the liability has been incurred and the amount of the liability can be reasonably estimated. Recorded amounts are reviewed and adjusted to reflect changes in the factors upon which the estimates are based, including additional information, negotiations, settlements and other events.

14. Accumulated Other Comprehensive Income (Loss)

The components of comprehensive income are: (a) net earnings; (b) change in fair value of certain derivative instruments; (c) pension and other postretirement benefit adjustments; and (d) foreign currency translation adjustments. The net effect of exchange rate fluctuations generally reflects changes in the relative strength of the U.S. dollar against major foreign currencies between the beginning and end of the year.

The following table lists the beginning balance, annual activity and ending balance of each component of accumulated other comprehensive income (loss):

	Net Effect of Exchange Rate Fluctuations	Change in Certain Derivative Instruments	Employee Benefit Plans	Total Accumulated Other Comprehensive Income (Loss)
Balance on January 1, 2017	$ (788)	$ (4)	$ (1,380)	$ (2,172)
Change before reclassifications	65	(3)	(8)	54
Amounts reclassified from accumulated other comprehensive income		(6)(a)	285 (b)	279
Translation effect			32	32
Tax effect		1	(20)	(19)
Other comprehensive income (loss) attributable to the Company	65	(8)	289	346
Balance on December 31, 2017	(723)	(12)	(1,091)	(1,826)
Change before reclassifications	(166)	(4)	(114)	(284)
Amounts reclassified from accumulated other comprehensive income		(1)(a)	131 (b)	130
Translation effect		(1)	16	15
Tax effect			(3)	(3)
Other comprehensive income (loss) attributable to the Company	(166)	(6)	30	(142)
Balance on December 31, 2018	$ (889)	$ (18)	$ (1,061)	$ (1,968)

(a) Amount is included in Cost of goods sold on the Consolidated Results of Operations (see Note 8 for additional information).

(b) Amount is included in the computation of net periodic pension cost and net postretirement benefit cost (see Note 10 for additional information).

15. Stock Based Compensation

The Company has various nonqualified plans approved by share owners under which it has granted stock options, restricted shares and performance vested restricted share units. Starting with the 2017 equity awards, the Company has allocated these awards solely in the form of restricted shares and performance vested restricted share units. As such, the Company's annual compensation expense related to stock option awards is immaterial. At December 31, 2018, there were 3,547,267 shares available for grants under these plans. Total compensation cost for all grants of shares and units under these plans was $27 million, $18 million and $11 million for the years ended December 31, 2018, 2017, and 2016, respectively.

Restricted Shares and Restricted Share Units

Restricted share units granted to employees vest 25% per year beginning on the first anniversary. Granted but unvested restricted share units are forfeited upon termination, unless certain retirement criteria are met. Holders of vested restricted share units receive one share of the Company's common stock for each unit as units vest. Restricted share units granted to directors vest after one year.

The fair value of the restricted shares and restricted share units is equal to the market price of the Company's common stock on the date of the grant. The fair value of restricted shares and restricted share units, is amortized over the vesting periods which range from one to four years.

The activity of restricted shares and restricted share units is as follows:

	Number of Restricted Shares (thousands)	Weighted Average Grant-Date Fair Value (per share)
Nonvested at January 1, 2018	1,108	$ 19.39
Granted	579	21.64
Vested	(492)	19.73
Forfeited	(116)	29.90
Nonvested at December 31, 2018	1,079	20.29
Awards granted during 2017		$ 20.01
Awards granted during 2016		$ 15.70

	2018	2017	2016
Total fair value of shares vested	$ 10	$ 5	$ 6

Performance Vested Restricted Share Units

Performance vested restricted share units vest on January 1 of the third year following the year in which they are granted. Holders of vested units may receive up to two shares of the Company's common stock for each unit, depending upon the attainment of consolidated performance goals established by the Compensation Committee of the Company's Board of Directors. If minimum goals are not met, no shares will be issued. Granted but unvested restricted share units are forfeited upon termination of employment, unless certain retirement criteria are met.

The fair value of each performance vested restricted share unit is equal to the product of the fair value of the Company's common stock on the date of grant and the estimated number of shares into which the performance vested restricted share unit will be converted. The fair value of performance vested restricted share units is amortized ratably over the vesting period. Should the estimated number of shares into which the performance vested restricted share unit will be converted change, an adjustment will be recorded to recognize the accumulated difference in amortization between the revised and previous estimates.

Performance vested restricted share unit activity is as follows:

	Number of Performance Vested Restricted Shares Units (thousands)	Weighted Average Grant-Date Fair Value (per unit)
Nonvested at January 1, 2018	1,594	$ 18.66
Granted	501	22.05
Vested	(375)	23.58
Forfeited/Cancelled	(88)	20.33
Nonvested at December 31, 2018	1,632	18.48
Awards granted during 2017		$ 19.57
Awards granted during 2016		$ 15.10

Approximately 501,000 shares were issued in 2018 with a fair value at issuance date of $9 million related to performance vested restricted share units.

As of December 31, 2018, there was $19 million of total unrecognized compensation cost related to all unvested stock options, restricted shares, restricted share units and performance vested restricted share units. That cost is expected to be recognized over a weighted average period of approximately two years.

16. Other Expense, net

Other expense, net for the years ended December 31, 2018, 2017, and 2016 included the following:

	2018	2017	2016
Restructuring, asset impairment and other charges	$ 97	$ 77	$ 104
Charge for asbestos-related costs	125		
Pension settlement charges	74	218	98
Intangible amortization expense	40	41	39
Impairment of equity investment			25
Gain on China land compensation			(71)
Royalty income	(13)	(11)	(13)
Foreign currency exchange loss	6	5	6
Non-income tax gain	(19)		
Other income (including gains on asset sales), net	(41)	(7)	(14)
	$ 269	$ 323	$ 174

In 2018, other income, net includes a gain realized on a sale of an asset in Europe (approximately $11 million) and gains recorded on insurance proceeds in the Americas (approximately $11 million).

In 2016, the Company evaluated the future estimated earnings and cash flow of an equity investment and determined that it was other-than-temporarily impaired. As such, the Company recorded an impairment charge of $25 million to reduce its carrying value down to its estimated fair value. The Company classified the significant assumptions used to determine the fair value of the impaired assets as Level 3 in the fair value hierarchy.

17. Operating Leases

Rent expense attributable to all warehouse, office buildings and equipment operating leases was $91 million in 2018, $91 million in 2017, and $80 million in 2016. Minimum future rentals under operating leases are as follows: 2019, $69 million; 2020, $53 million; 2021, $41 million; 2022, $36 million; 2023, $29 million; and 2024 and thereafter, $40 million.

18. Earnings Per Share

The following table sets forth the computation of basic and diluted earnings per share:

	2018	2017	2016
Numerator:			
Net earnings attributable to the Company	$ 257	$ 180	$ 209
Denominator (in thousands):			
Denominator for basic earnings per share-weighted average shares outstanding	160,125	162,737	161,857
Effect of dilutive securities:			
Stock options and other	1,963	1,910	968
Denominator for diluted earnings per share-adjusted weighted average shares outstanding	162,088	164,647	162,825
Basic earnings per share:			
Earnings from continuing operations	$ 0.90	$ 1.12	$ 1.33
Gain (loss) from discontinued operations	0.71	(0.01)	(0.04)
Net earnings	$ 1.61	$ 1.11	$ 1.29
Diluted earnings per share:			
Earnings from continuing operations	$ 0.89	$ 1.11	$ 1.32
Gain (loss) from discontinued operations	0.70	(0.01)	(0.04)
Net earnings	$ 1.59	$ 1.10	$ 1.28

Options to purchase 1,726,275, 1,522,928 and 2,770,458 weighted average shares of common stock which were outstanding during 2018, 2017, and 2016, respectively, were not included in the computation of diluted earnings per share because the options' exercise price was greater than the average market price of the common shares.

19. Supplemental Cash Flow Information

Changes in the components of working capital related to operations (net of the effects related to acquisitions and divestitures) were as follows:

	2018	2017	2016
Decrease (increase) in current assets:			
Receivables	$ 43	$ (37)	$ (32)
Inventories	(29)	2	16
Prepaid expenses and other	(58)	(10)	145
Increase (decrease) in current liabilities:			
Accounts payable	67	69	(58)
Accrued liabilities	(16)	(49)	(31)
Salaries and wages	(1)	(21)	32
U.S. and foreign income taxes	9	(43)	18
	$ 15	$ (89)	$ 90

The Company uses various factoring programs to sell certain receivables to financial institutions as part of managing its cash flows. At December 31, 2018 and 2017, the amount of receivables sold by the Company was $600 million and $454 million, respectively. Any continuing involvement with the sold receivables is immaterial.

Income taxes paid in cash were as follows:

	2018	2017	2016
U.S.	$ 11	$ 4	$ —
Non-U.S.	97	127	99
Total income taxes paid in cash	$ 108	$ 131	$ 99

Interest paid in cash, including note repurchase premiums, for the years ended December 31, 2018, 2017 and 2016 was $236 million, $261 million and $261 million, respectively. Cash interest for the years ended December 31, 2018, 2017 and 2016 included $0 million, $18 million and $9 million of note repurchase premiums, respectively.

20. Discontinued Operations

On December 6, 2018, an ad hoc committee for the World Bank's International Centre for Settlement of Investment Disputes ("ICSID") rejected the request by the Bolivarian Republic of Venezuela ("Venezuela") to annul the award issued by an ICSID tribunal in favor of OI European Group B.V. ("OIEG") related to the 2010 expropriation of OIEG's majority interest in two plants in Venezuela (the "Award"). The annulment proceeding with respect to the Award is now concluded.

On July 31, 2017, OIEG sold its right, title and interest in amounts due under the Award to an Ireland-domiciled investment fund. Under the terms of the sale, OIEG received a payment, in cash, at closing equal to $115 million (the "Cash Payment"). OIEG may also receive additional payments in the future ("Deferred Amounts") calculated based on the total compensation that is received from Venezuela as a result of collection efforts or as settlement of the Award with Venezuela. OIEG's right to receive any Deferred Amounts is subject to the limitations described below.

OIEG's interest in any amounts received in the future from Venezuela in respect of the Award is limited to a percentage of such recovery after taking into account reimbursement of the Cash Payment to the purchaser and reimbursement of legal fees and expenses incurred by the Company and the purchaser. OIEG's percentage of such recovery will also be reduced over time. Because the Award has yet to be satisfied and the ability to successfully enforce the Award in countries that are party to the ICSID Convention is subject to significant challenges, the Company is unable to reasonably predict the amount of recoveries from the Award, if any, to which the Company may be entitled in the future. Any future amounts that the Company may receive from the Award are highly speculative and the timing of any such future payments, if any, is highly uncertain. As such, there can be no assurance that the Company will receive any future payments under the Award beyond the Cash Payment.

A separate arbitration involving other subsidiaries of the Company was initiated in 2012 to obtain compensation primarily for third-party minority shareholders' lost interests in the two expropriated plants. However, on November 13, 2017, ICSID issued an award that dismissed this arbitration on jurisdiction grounds. In March 2018, the two subsidiaries of the Company submitted to ICSID an application to annul the November 13, 2017 award; they have since submitted a pleading seeking annulment.

As a result of the favorable ruling by an ICSID ad hoc committee rejecting Venezuela's request to annul the OIEG Award, and thereby concluding those annulment proceedings, the Company has recognized a $115 million gain from discontinued operations in 2018. The gain from discontinued operations of $113 million, and the losses from discontinued operations of $3 million and $7 million, for the years ended December 31, 2018, 2017 and 2016, respectively, reflect the gain in 2018 and the ongoing costs for the Venezuelan expropriation in all three years.

Selected Quarterly Financial Data (unaudited) The following tables present selected financial data by quarter for the years ended December 31, 2018 and 2017:

	2018				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$ 1,736	$ 1,772	$ 1,734	$ 1,635	$ 6,877
Gross profit	$ 319	$ 346	$ 324	$ 294	$ 1,283
Earnings (loss) from continuing operations attributable to the Company (a)	$ 98	$ 50	$ 120	$ (125)	$ 144
Gain from discontinued operations attributable to the Company				115	113
Net earnings attributable to the Company	$ 98	$ 50	$ 120	$ (10)	$ 257
Earnings per share of common stock (a) (b):					
Basic:					
Earnings (loss) from continuing operations	$ 0.60	$ 0.31	$ 0.75	$ (0.79)	$ 0.90
Gain from discontinued operations				0.73	0.71
Net earnings (loss)	$ 0.60	$ 0.31	$ 0.75	$ (0.06)	$ 1.61
Diluted:					
Earnings (loss) from continuing operations	$ 0.59	$ 0.31	$ 0.75	$ (0.78)	$ 0.89
Gain from discontinued operations				0.72	0.70
Net earnings (loss)	$ 0.59	$ 0.31	$ 0.75	$ (0.06)	$ 1.59

(a) Amounts management considers not representative of ongoing operations include:

For the second quarter, included net charges totaling $75 million after-tax amount attributable to the Company. The effect of these charges was a decrease in earnings per share of $0.46.

For the fourth quarter, included net charges totaling $222 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $1.39.

(b) Selected financial data and earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

	2017				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
Net sales	$ 1,615	$ 1,751	$ 1,791	$ 1,712	$ 6,869
Gross profit	$ 315	$ 346	$ 353	$ 320	$ 1,333
Earnings (loss) from continuing operations attributable to the Company (c)	$ 49	$ 140	$ 128	$ (133)	$ 183
Loss from discontinued operations attributable to the Company			(2)		(3)
Net earnings (loss) attributable to the Company	$ 49	$ 140	$ 126	$ (133)	$ 180
Earnings per share of common stock (c) (d):					
Basic:					
Earnings (loss) from continuing operations	$ 0.30	$ 0.86	$ 0.78	$ (0.81)	$ 1.12
Loss from discontinued operations			(0.01)	—	(0.01)
Net earnings (loss)	$ 0.30	$ 0.86	$ 0.77	$ (0.81)	$ 1.11
Diluted:					
Earnings (loss) from continuing operations	$ 0.30	$ 0.85	$ 0.77	$ (0.81)	$ 1.11
Loss from discontinued operations			(0.01)	—	(0.01)
Net earnings (loss)	$ 0.30	$ 0.85	$ 0.76	$ (0.81)	$ 1.10

(c) Amounts management considers not representative of ongoing operations include:

For the first quarter, included net charges totaling $46 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $0.28.

For the second quarter, included net benefits totaling $16 million after-tax amount attributable to the Company. The effect of these benefits was an increase in earnings per share of $0.10.

For the fourth quarter, included net charges totaling $224 million after-tax amount attributable to the Company. The effect of these charges was a reduction in earnings per share of $1.36.

(d) Earnings per share are computed independently for each period presented. As such, the sums of the amounts calculated separately for each quarter do not equal the year-to-date amount.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Also, the Company has investments in certain unconsolidated entities. As the Company does not control or manage these entities, its disclosure controls and procedures with respect to such entities are necessarily substantially more limited than those maintained with respect to its consolidated subsidiaries.

As required by Rule 13a-15(b) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company's disclosure controls and procedures as of the end of the period covered by this report. Based on the foregoing, the Company's Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2018.

Management's Report on Internal Control over Financial Reporting

The management of Owens-Illinois, Inc. is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States. However, all internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and reporting.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2018. In making this assessment management used the criteria for effective internal control over financial reporting as described in "Internal Control—Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO framework) in 2013.

Based on this assessment, using the criteria above, management concluded that the Company's system of internal control over financial reporting was effective as of December 31, 2018.

The Company's independent registered public accounting firm, Ernst & Young LLP, that audited the Company's consolidated financial statements, has issued an attestation report on the Company's internal control over financial reporting which is included below.

Changes in Internal Control over Financial Reporting

As required by Rule 13a-15(d) of the Exchange Act, the Company carried out an evaluation, under the supervision and with the participation of management, including its Chief Executive Officer and Chief Financial Officer, of any change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

There were no changes in the Company's internal control over financial reporting during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Share Owners of
Owens-Illinois, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Owens-Illinois, Inc.'s internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Owens-Illinois, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of Owens-Illinois, Inc. as of December 31, 2018 and 2017, the related consolidated statements of results of operations, comprehensive income, share owners' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and financial statement schedule listed in the Index at Item 15 and our report dated February 14, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP
Toledo, Ohio
February 14, 2019

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information with respect to non-officer directors and corporate governance is included in the 2019 Proxy Statement in the sections entitled "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" and such information is incorporated herein by reference.

Information with respect to executive officers is included herein in Item 1.

Code of Business Conduct and Ethics

The Company's Global Code of Business Conduct and Ethics, which is applicable to all directors, officers and employees of the Company, including the principal executive officer, the principal financial officer and the principal accounting officer, is available on the Investor Relations section of the Company's website (www.o-i.com). A copy of the Code is also available in print to share owners upon request, addressed to the Corporate Secretary at Owens-Illinois, Inc., One Michael Owens Way, Perrysburg, Ohio 43551. The Company intends to post amendments to or waivers from its Code of Business Conduct and Ethics (to the extent applicable to the Company's directors, executive officers or principal financial officers) at this location on its website.

ITEM 11. EXECUTIVE COMPENSATION

The section entitled "Executive Compensation," exclusive of the subsection entitled "Board Compensation Committee Report," which is included in the 2019 Proxy Statement, is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The section entitled "Security Ownership of Certain Beneficial Owners and Management" which is included in the 2019 Proxy Statement is incorporated herein by reference.

The following table summarizes securities authorized for issuance under equity compensation plans as of December 31, 2018.

	Equity Compensation Plan Information		
	(a)	(b)	(c)
Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1) (thousands)	Weighted-average exercise price of outstanding options, warrants and rights (1)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (thousands)
Equity compensation plans approved by security holders	4,945	21.40	3,547
Equity compensation plans not approved by security holders	—	—	—
Total	4,945	$ 21.40	3,547

(1) Represents 2,234,000 options to purchase shares of the Company's common stock and 2,711,000 restricted share units which do not provide for an exercise price and have been excluded from the weighted average exercise price in column (b). There are no outstanding warrants.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The section entitled “Director and Executive Compensation and Other Information,” exclusive of the subsection entitled “Board Compensation Committee Report on Executive Compensation,” which is included in the 2019 Proxy Statement, is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information with respect to principal accountant fees and services is included in the 2019 Proxy Statement in the section entitled “Independent Registered Public Accounting Firm” and such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Index of Financial Statements and Financial Statement Schedules Covered by Report of Independent Auditors.

(a) DOCUMENTS FILED AS PART OF THIS REPORT

1. See Index to Consolidated Financial Statements on page 50 hereof.
2. See Quarterly Results (Unaudited) beginning on page 95 hereof.
3. Financial Statement Schedule:

	10-K Page
For the years ended December 31, 2018, 2017, and 2016:	
II—Valuation and Qualifying Accounts (Consolidated)	S-1

All other schedules have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule.

4. See Exhibit Index beginning on page 104 hereof.

EXHIBIT INDEX

S-K Item 601 No.		Document
2.1	—	Stock Purchase Agreement, dated as of May 12, 2015, by and between Owens-Brockway Glass Container Inc. and Vitro, S.A.B. de C.V., Distribuidora Álcali, S.A. de C.V. and Vitro Packaging, LLC (filed as Exhibit 2.1 to the Owens-Illinois, Inc.'s Form 8-K/A filed on May 13, 2015, File No. 1-9576, and incorporated herein by reference).
3.1	—	Third Restated Certificate of Incorporation of Owens-Illinois, Inc. (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2012, File No. 1-9576, and incorporated herein by reference).
3.2	—	Fourth Amended and Restated Bylaws of Owens-Illinois, Inc., (filed as Exhibit 3.1 to Owens-Illinois, Inc.'s Form 8-K dated July 13, 2017, File No. 1-9576, and incorporated herein by reference).
4.1	—	Indenture, dated as of September 15, 2010, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar, Luxembourg paying agent and transfer agent, including the form of the Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated September 10, 2010, File No. 33-13061, and incorporated herein by reference).
4.2	—	Indenture dated as of March 22, 2013, by and among OI European Group B.V.; the guarantors party thereto; Deutsche Trustee Company Limited as trustee; Deutsche Bank AG, London Branch as principal paying agent and transfer agent; and Deutsche Bank Luxembourg S.A. as the registrar and Luxembourg transfer agent, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated March 22, 2013, File No. 33-13061, and incorporated herein by reference).
4.3	—	Indenture dated as of December 3, 2014, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2022 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated December 3, 2014, File No. 33-13061, and incorporated herein by reference).
4.4	—	Indenture dated as of August 24, 2015, by and among Owens-Brockway Glass Container Inc., the guarantors party thereto and U.S. Bank National Association, as trustee, including the form of 2023 Senior Notes and the form of 2025 Senior Notes (filed as Exhibit 4.1 to Owens-Illinois Group, Inc.'s Form 8-K dated August 24, 2015, File No. 33-13061, and incorporated herein by reference).
4.5	—	Indenture, dated as of November 3, 2016, by and among OI European Group B.V., the guarantors party thereto, Deutsche Trustee Company Limited, as trustee, Deutsche Bank AG, London Branch, as principal paying agent and transfer agent, and Deutsche Bank Luxembourg S. A., as Luxembourg transfer agent and registrar, including the form of Notes (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated November 3, 2016, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
4.6	—	Second Amended and Restated Credit Agreement and Syndicated Facility Agreement, dated June 27, 2018, by and among the Borrowers named therein, Owen-Illinois General Inc., as Borrowers' Agent, Deutsche Bank AG New York Branch, as Administrative Agent, and the other Agents, Arrangers and Lenders named therein (filed as Exhibit 4.1 to Owen-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated June 27, 2018, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).

S-K Item 601 No.		Document
4.7	—	Fourth Amended and Restated Intercreditor Agreement, dated as of June 27, 2018, by and among Deutsche Bank AG New York Branch, as Administrative Agent and Collateral Agent for the lenders party to the Credit Agreement (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owen-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated June 27, 2018, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
4.8	—	Fourth Amended and Restated Pledge Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., Owens-Brockway Packaging, Inc., and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) and any other parties thereto (filed as Exhibit 4.2 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.9	—	Amended and Restated Security Agreement, dated as of April 22, 2015, between Owens-Illinois Group, Inc., each of the direct and indirect subsidiaries of Owens-Illinois Group, Inc. signatory thereto, and Deutsche Bank AG, New York Branch, as Collateral Agent (as defined therein) (filed as Exhibit 4.3 to Owens-Illinois Group, Inc.'s Form 8-K dated April 22, 2015, File No. 33-13061, and incorporated herein by reference).
4.10	—	Indenture, dated as of December 12, 2017, by and among OI European Group B.V., the guarantors party thereto, and Deutsche Bank Trust Company Americas, as Trustee (filed as Exhibit 4.1 to Owens-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated December 12, 2017, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
4.11	—	Domestic Guarantor Consent and Reaffirmation, dated as of June 27, 2018, by and among Owens-Illinois Group, Inc., the Subsidiary Grantors (as defined therein) and Deutsche Bank AG New York Branch, as the Collateral Agent (filed as Exhibit 4.3 to Owen-Illinois, Inc.'s and Owens-Illinois Group, Inc.'s combined Form 8-K dated June 27, 2018, File Nos. 1-9576 and 33-13061, and incorporated herein by reference).
10.1*	—	Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1998, File No. 1-9576, and incorporated herein by reference).
10.2*	—	First Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.3 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2000, File No. 1-9576, and incorporated herein by reference).
10.3*	—	Second Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2002, File No. 1-9576, and incorporated herein by reference).
10.4*	—	Third Amendment to Amended and Restated Owens-Illinois Supplemental Retirement Benefit Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2003, File No. 1-9576, and incorporated herein by reference).
10.5*	—	Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.26 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.6*	—	First Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.27 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 1995, File No. 1-9576, and incorporated herein by reference).
10.7*	—	Second Amendment to Owens-Illinois, Inc. Directors Deferred Compensation Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 1997, File No. 1-9576, and incorporated herein by reference).
10.8*	—	Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 1999, File No. 1-9576, and incorporated herein by reference).
10.9*	—	First Amendment to Amended and Restated 1997 Equity Participation Plan of Owens-Illinois, Inc. (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended June 30, 2002, File No. 1-9576, and incorporated herein by reference).

S-K Item 601 No.		Document
10.10*	—	Owens-Illinois, Inc. Executive Deferred Savings Plan (filed as Exhibit 10.10 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2016, File No. 1-9576, and incorporated herein by reference).
10.11*	—	Owens-Illinois 2004 Executive Life Insurance Plan (filed as Exhibit 10.32 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.12*	—	Owens-Illinois 2004 Executive Life Insurance Plan for Non-U.S. Employees (filed as Exhibit 10.33 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2004, File No. 1-9576, and incorporated herein by reference).
10.13*	—	Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan dated as of April 24, 2009 (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2009, File No. 1-9576, and incorporated herein by reference).
10.14*	—	Form of Non-Qualified Stock Option Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.25 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.15*	—	Form of Restricted Stock Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.28 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.16*	—	Form of Performance Share Unit Agreement for use under the Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Exhibit 10.29 to Owens-Illinois, Inc.'s Form 10-K for the year ended December 31, 2011, File No. 1-9576, and incorporated herein by reference).
10.17*	—	Second Amended and Restated Owens-Illinois, Inc. 2005 Incentive Award Plan (filed as Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 31, 2014, File No. 1-9576, and incorporated herein by reference).
10.18*	—	Form of Non-Qualified Stock Option Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.19*	—	Form of Restricted Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.2 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2017, File No. 1-9576, and incorporated herein by reference).
10.20*	—	Form of Performance Stock Unit Agreement for use under Owens-Illinois, Inc.'s Second Amended and Restated 2005 Incentive Award Plan (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 10-Q for the quarter ended March 31, 2017, File No. 1-9576, and incorporated herein by reference).
10.21*	—	Owens-Illinois, Inc. 2017 Incentive Award Plan (filed as Appendix B to Owens-Illinois, Inc.'s Definitive Proxy Statement on Schedule 14A filed March 30, 2017, File No. 1-9576, and incorporated herein by reference).
10.22*	—	Owens-Illinois, Inc. Executive Severance Policy (filed as Exhibit 10.4 to Owens-Illinois, Inc.'s Form 8-K dated March 7, 2015, File No. 1-9576, and incorporated herein by reference).
10.23*	—	Letter Agreement signed November 20, 2015, between Owens-Illinois, Inc. and Jan Bertsch (filed as Exhibit 10.1 to Owens-Illinois, Inc.'s Form 8-K dated November 23, 2015, File No. 1-9576, and incorporated herein by reference).
21	—	Subsidiaries of Owens-Illinois, Inc. (filed herewith).
23	—	Consent of Independent Registered Public Accounting Firm (filed herewith).
24	—	Owens-Illinois, Inc. Power of Attorney (filed herewith).
31.1	—	Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	—	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).

S-K Item 601 No.		Document
32.1**	—	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
32.2**	—	Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
101	—	Financial statements from the Annual Report on Form 10-K of Owens-Illinois, Inc. for the year ended December 31, 2018, formatted in XBRL: (i) the Consolidated Results of Operations, (ii) the Consolidated Comprehensive Income, (iii) the Consolidated Balance Sheets, (iv) the Consolidated Share Owners' Equity, (v) the Consolidated Cash Flows and (vi) the Notes to Consolidated Financial Statements.

* Indicates a management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(c).

** This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

OWENS-ILLINOIS, INC.
(Registrant)

By: /s/ MARY BETH WILKINSON
Mary Beth Wilkinson
Attorney-in-fact

Date: February 14, 2019

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of Owens-Illinois, Inc. and in the capacities and on the dates indicated.

Signatures	Title
Andres A. Lopez	President and Chief Executive Officer (Principal Executive Officer)
Jan A. Bertsch	Senior Vice President and Chief Financial Officer (Principal Financial Officer; Principal Accounting Officer)
Carol A. Williams	Chairman of the Board
Gordon J. Hardie	Director
Peter S. Hellman	Director
John Humphrey	Director
Anastasia D. Kelly	Director
John J. McMackin, Jr.	Director
Alan J. Murray	Director
Hari N. Nair	Director
Hugh H. Roberts	Director
Joseph D. Rupp	Director
Dennis K. Williams	Director

By: /s/ MARY BETH WILKINSON
Mary Beth Wilkinson
Attorney-in-fact

Date: February 14, 2019

INDEX TO FINANCIAL STATEMENT SCHEDULE

Financial Statement Schedule of Owens-Illinois, Inc. and Subsidiaries:

For the years ended December 31, 2018, 2017, and 2016:

	PAGE
II—Valuation and Qualifying Accounts (Consolidated)	S-1

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OWENS-ILLINOIS, INC.

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS (CONSOLIDATED)

Years ended December 31, 2018, 2017, and 2016

(Millions of Dollars)

Reserves deducted from assets in the balance sheets:

Allowances for losses and discounts on receivables

	Balance at beginning of period	Additions: Charged to costs and expenses	Additions: Other	Deductions (Note 1)	Balance at end of period
2018	$ 34	$ 13	$ (4)	$ (8)	$ 35
2017	$ 32	$ 12	$ (2)	$ (8)	$ 34
2016	$ 29	$ 15	$ (2)	$ (10)	$ 32

(1) Deductions from allowances for losses and discounts on receivables represent uncollectible notes and accounts written off.

Valuation allowance on net deferred tax assets

	Balance at beginning of period	Charged to income	Charged to other comprehensive income	Foreign currency translation	Other (Note 1)	Balance at end of period
2018	$ 543	$ (20)	$ (7)	$ (9)	$ (12)	$ 495
2017	$ 1,094	$ 15	$ (79)	$ 4	$ (491)	$ 543
2016	$ 1,135	$ 3	$ (32)	$ (3)	$ (9)	$ 1,094

(1) The U.S. Tax Cuts and Jobs Act ("the Act") was enacted on December 22, 2017. The Act reduced the U.S. federal corporate tax rate to 21% from 35%. The reduction in tax rates reduced certain net U.S. deferred tax assets by $162 million, with an offsetting impact to valuation allowance.

In 2017, $327 million of foreign tax credits expired or were utilized against transition tax, against which a valuation allowance had previously been asserted.

In 2018, the other change in valuation allowance on net deferred tax assets was primarily due to changes in tax law and expiration of certain tax attribute carryovers against which a valuation allowance had previously been asserted.

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EXHIBIT 21

SUBSIDIARIES OF OWENS-ILLINOIS, INC.

Owens-Illinois, Inc. had the following subsidiaries at December 31, 2018 (subsidiaries are indented following their respective parent companies):

Name	State/Country of Incorporation or Organization
Owens-Illinois Group, Inc.	Delaware
OI General Finance Inc.	Delaware
OI General FTS Inc.	Delaware
OI Castalia STS Inc.	Delaware
OI Levis Park STS Inc.	Delaware
Owens-Illinois General Inc.	Delaware
Owens Insurance, Ltd.	Bermuda
Universal Materials, Inc.	Ohio
OI Advisors, Inc.	Delaware
OI Securities, Inc.	Delaware
OI Transfer, Inc.	Delaware
Sovereign Air, LLC	Texas
Maumee Air Associates Inc.	Delaware
OI Australia Inc.	Delaware
Continental PET Holdings Pty. Ltd.	Australia
ACI America Holdings Inc.	Delaware
ACI Ventures, Inc.	Delaware
Owens-Brockway Packaging, Inc.	Delaware
Owens-Brockway Glass Container Inc.	Delaware
O-I Packaging Solutions LLC	Delaware
O-I Bolivia Holdings Limited	United Kingdom
Vidrio Lux S.A.	Bolivia
OI Andover Group Inc.	Delaware
The Andover Group, Inc.	Delaware
Brockway Realty Corporation	Pennsylvania
NHW Auburn, LLC	Delaware
OI Auburn Inc.	Delaware
SeaGate, Inc.	Ohio
SeaGate II, Inc.	Ohio
SeaGate III, Inc.	Ohio
OIB Produvisa Inc.	Delaware
OI California Containers, Inc.	Delaware
O-I Latam Services S.A.S.	Colombia
O-I Business Service Center Sp. Z.o.o.	Poland
OI Puerto Rico STS Inc.	Delaware
Glass to Glass, LLC	Delaware
O-I Caribbean Sales & Distibution Inc.	Delaware
O-I Latam HQ, Inc.	Delaware

Name	State/Country of Incorporation or Organization
Bolivian Investments, Inc.	Delaware
Fabrica Boliviana de Vidrios S.A.	Bolivia
OI International Holdings Inc.	Delaware
O-I Global Holdings LLC	Delaware
O-I Global Holdings C.V.	Netherlands
O-I Americas LLC	Delaware
O-I Glass C.V.	Netherlands
O-I Mexico Holdings I B.V.	Netherlands
O-I Mexico Holdings II B.V.	Netherlands
Envases de Vidrio de las Americas, S. de R.L. de C.V.	Mexico
Especialidades Operativas de America, S. de R.L. de C.V.	Mexico
Glass International OISPV, S.A.P.I. de C.V.	Mexico
Owens America, S. de R.L. de C.V.	Mexico
Owens Vimosa, S. de R.L. de C.V.	Mexico
Owens Vigusa, S. de R.L. de C.V.	Mexico
Owens Virreyes, S. de R.L. de C.V.	Mexico
Owens Viquesa, S. de R.L. de C.V.	Mexico
Owens Vitolsa, S. de R.L. de C.V.	Mexico
OI European Group B.V.	Netherlands
OI Hungary LLC	Delaware
O-I Hungary Kft.	Hungary
O-I Ecuador LLC	Ohio
Cristaleria del Ecuador, S.A.	Ecuador
Owens-Illinois Singapore Pte. Ltd.	Singapore
OI China LLC.	Delaware
ACI Beijing Limited	Hong Kong
O-I (Tianjin) Glass Container Co., Ltd.	China
Owens-Illinois Services H.K. Limited	Hong Kong
ACI Guangdong Limited	Hong Kong
ACI Guangdong Glass Company Limited	China
ACI Shanghai Limited	Hong Kong
O-I (Shanghai) Glass Container Co., Ltd.	China
Owens-Illinois (HK) Limited	Hong Kong
O-I (Shanghai) Management Co Ltd.	China
O-I (Zhaoqing) Glass Container Co., Ltd.	China
O-I Sihui Glass Recycling Co. Ltd.	China
Owens-Illinois Holding (Australia) Pty Ltd	Australia
ACI Packaging Services Pty Ltd.	Australia
O-I Operations (Australia) Pty Ltd	Australia
Brisbane Cullet Pty. Ltd.	Australia
O-I International Pty Ltd	Australia
ACI Glass Packaging Penrith Pty Ltd	Australia
PT Kangar Consolidated Industries	Indonesia
O-I Operations (NZ) Limited	New Zealand

Name	State/Country of Incorporation or Organization
ACI New Zealand Nominees Ltd.	New Zealand
O-I Sales and Distribution Netherlands B.V.	Netherlands
O-I Europe Sarl	Switzerland
O-I Sales and Distribution UK Limited.	United Kingdom
O-I Sales and Distribution Poland Sp Z.o.o.	Poland
O-I Manufacturing Poland S.A.	Poland
O-I Manufacturing UK Ltd.	United Kingdom
O-I Sales and Distribution Spain SL	Spain
Vidrieria Rovira, S. L.	Spain
OI Spanish Holdings B.V.	Netherlands
Owens-Illinois Peru S. A.	Peru
O-I Manufacturing Italy S.p.A.	Italy
O-I Manufacturing Czech Republic A.S.	Czech Republic
O-I Sales and Distribution Czech Republic s.r.o.	Czech Republic
San Domenico Vetraria S.r.l.	Italy
O-I Sales and Distribution Italy S.r.l.	Italy
O-I Manufacturing Netherlands B.V.	Netherlands
Veglarec B.V.	Netherlands
O-I Europe SAS	France
O-I Manufacturing France SAS	France
Verdome Exploitation SNC	France
Prover SAS	France
SCI Le Mourtis	France
Atlantique Emballage	France
O-I Glasspack Beteiligungs & Verwaltungsgesellschaft GmbH	Germany
OI Glasspack GmbH & Co. KG.	Germany
O-I Sales and Distribution Germany GmbH	Germany
O-I Glasspack Verwaltungs GmbH	Germany
OI Canada Holdings B.V.	Netherlands
O-I Canada Corp.	Canada
Manufacturera de Vidrios Planos, C.A.	Venezuela
Owens-Illinois de Venezuela, C. A.	Venezuela
Fabrica de Vidrio Los Andes, C. A.	Venezuela
CMC S.A.	Colombia
Cristaleria Peldar, S.A.	Colombia
Industria de Materias Primas S.A.	Colombia
Cristar S.A.	Colombia
Vidrieria Fenicia	Colombia
Owens-Illinois do Brasil Industria e Comercio Ltda.	Brazil
Mineracao Silminas Ltda.	Brazil
Mineracao Descalvado Ltda.	Brazil
OI Finnish Holdings Oy	Finland
O-I Sales and Distribution Finland OY	Finland
O-I Estonia AS	Estonia
O-I Sales and Distribution Estonia OU	Estonia
O-I GMEC Lurin srl	Peru
O-I Jaroslaw Machine Service Center	Poland
Owens-Illinois Argentina S.A.	Argentina

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DIRECTORS AND OFFICERS

Directors

Carol A. Williams
Special Advisor to the Chief Executive Officer (retired), Dow Chemical Company

Gordon J. Hardie
President, Bunge Food & Ingredients

Peter S. Hellman
President and Chief Financial and Administrative Officer (retired), Nordson Corporation

John Humphrey
Executive Vice President and Chief Financial Officer (retired), Roper Technologies, Inc.

Anastasia D. Kelly
Managing Partner (Americas), DLA Piper

Andres A. Lopez
President and Chief Executive Officer, Owens-Illinois

John J. McMackin, Jr.
Principal, Williams & Jensen, PLLC

Alan J. Murray
Managing Board Member for North America (retired), Heidelberg Cement AG

Hari N. Nair
Chief Operating Officer (retired), Tenneco Inc.

Hugh H. Roberts
President (retired), Kraft Foods International Commercial

Joseph D. Rupp
Chairman of the Board (retired), Olin Corporation

Dennis K. Williams
Chairman of the Board (retired), IDEX Corporation

Officers

Andres A. Lopez
President and Chief Executive Officer

Miguel I. Alvarez
President, O-I Americas

Arnaud Aujouannet
Senior Vice President and Chief Sales and Marketing Officer

Jan A. Bertsch
Senior Vice President and Chief Financial Officer

Tim M. Connors
President, O-I Asia Pacific

Giancarlo Currarino
Senior Vice President and Chief Technology and Supply Chain Officer

John A. Haudrich
Senior Vice President and Chief Strategy and Integration Officer

Vitaliano Torno
President, O-I Europe

MaryBeth Wilkinson
Senior Vice President, General Counsel and Corporate Secretary

COMPANY INFORMATION

Exchange Listing
Owens-Illinois common stock (symbol OI) is listed on the New York Stock Exchange.

Transfer Agent for Common Stock
Correspondence should be mailed to:
Computershare
P.O. Box 505000
Louisville, KY 40233

Overnight correspondence should be sent to:
Computershare
462 South 4th Street, Suite 1600
Louisville, KY 40202

Computershare website:
http://www.computershare.com/investor
Phone: (781) 575-2724 or 1-877-373-6374
Hearing-impaired: TDD 1-800-952-9245

Any inquiries regarding your account or certificates should be referred to Computershare Trust Company, N.A.

Trustees
U.S. Bank, N.A.
Global Corporate Trust Services
60 Livingston Avenue
EP-MN-WN3L
St. Paul, MN 55107-1419

5.00 % Senior Notes, due 2022
5.375 % Senior Notes, due 2025
5.875% Senior Notes, due 2023
6.375% Senior Notes, due 2025

Deutsche Trustee Company Limited
Winchester House
1 Great Winchester Street
London, England EC2N 2DB

6.75% Senior Notes, due 2020
4.875% Senior Notes, due 2021
3.125% Senior Notes, due 2024

Deutsche Bank Trust Company Americas
Global Securities Services
Global Transaction Banking
60 Wall Street, 16th Floor
New York, New York 10005

4% Senior Notes, due 2023

Annual Meeting
The annual meeting of share owners will be held at 9:00 a.m. on Thursday, May 16, 2019, in Plaza 2 of the O-I World Headquarters Campus, Perrysburg, OH.

Forms 10-K and 10-Q
The Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, filed with the Securities and Exchange Commission, may be obtained without charge by contacting:

Owens-Illinois, Inc.
Investor Relations
One Michael Owens Way
Perrysburg, OH 43551
Phone: (567) 336-2400

These reports are also available without charge on the Company's website at www.o-i.com

Website
For further information about O-I, visit the Company's website at www.o-i.com

Annual Certifications
The most recent certifications by the Chief Executive Officer and the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 are filed as exhibits to the Company's Form 10-K. The Company has also filed with the New York Stock Exchange the most recent Annual CEO Certification as required by Section 303.12(a) of the New York Stock Exchange Listed Company Manual.

Corporate Headquarters
Owens-Illinois, Inc.
One Michael Owens Way
Perrysburg, OH 43551

EXHIBIT C

January 20, 2009 Deed of Judicial Sale

---On the same date of its execution I issued the first certified copy of this deed at the request of Seagate, Inc.----------
---I ATTEST----------

NOTARY PUBLIC

----------NUMBER TWO (2) ----------

---------- **DEED OF JUDICIAL SALE AND** ----------
---- **CANCELLATION OF MORTGAGE AND MORTGAGE NOTE** ---

---In San Juan, Puerto Rico, this twentieth (20th) day of January, two thousand nine (2009).----------

---------- **BEFORE ME** ----------

---NÉSTOR J. LO PRESTI REYES, Attorney and Notary Public in and for the Commonwealth of Puerto Rico, with residence at Guaynabo, Puerto Rico, and offices on the Eighth Floor of the American International Plaza Building on two hundred fifty (250) Muñoz Rivera Avenue, Hato Rey, San Juan, Puerto Rico.----------

---------- **APPEAR** ----------

---**AS PARTY OF THE FIRST PART**: UNITED STATES COURT FOR THE DISTRICT OF PUERTO RICO (hereinafter, the "Court"), represented herein by Hans López Stubbe, of legal age, married, self-employed, and resident of Aguas Buenas, Puerto Rico, in his capacity as Special Master (hereinafter, the "Special Master") appointed by the Court pursuant to Order of Public Sale in Execution of Judgment dated September sixteen (16), two thousand eight (2008), as amended by Amended Order of Public Sale in Execution of Judgment dated September thirty (30), two thousand eight (2008), in civil case captioned Seagate, Inc. v. Owens Illinois de P.R., LLC, Case Number 08-1627 (GAG), whose authority to appear herein is evidenced by means of certified copies of the aforesaid Order of Public Sale in Execution of Judgment and Amended Order of Public Sale in Execution of Judgment.----------

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---**AS PARTY OF THE SECOND PART**: SEAGATE, INC., Employer Identification Number 341300476, a corporation organized and existing under the laws

of the State of Ohio, United States of America, with principal offices located at Perrysburg, Ohio (hereinafter, "Seagate"), represented herein by Milagros Marcano Báez, of legal age, married, paralegal, and resident of San Juan, Puerto Rico, whose authority to appear herein is evidenced by a Certificate of Corporate Resolution subscribed by Ryan Haywood, Assistant Secretary of Seagate, on January five (5), two thousand nine (2009), before Notary Public Suzanne Crawford-Wiciak, which has been protocolized pursuant to deed number one (1), executed on January nineteen (19), two thousand nine (2009), before the undersigned Notary Public, a certified copy of which will be filed with the first certified copy of this deed in the corresponding section of the Registry of the Property of Puerto Rico. ----------

---I, the Notary, do hereby certify that I personally know the natural person appearing on behalf of the SECOND PART, and that, since I do not personally know the natural person appearing on behalf of the FIRST PART, I have identified him through his driver's license issued by the Commonwealth of Puerto Rico, in accordance with the provisions of Article 17(c) of the Puerto Rico Notarial Act, and, by their statements, as to their personal circumstances. They assure me that they have, and in my opinion they do have, the necessary capacity to execute this document, and pursuant to which they freely and voluntarily ----

---------- STATE----------

---**FIRST:** That Owens Illinois de Puerto Rico (hereinafter, the "Mortgagor") constituted a mortgage to secure payment of a demand Mortgage

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Note payable to Bearer, in the principal amount of twenty six million five hundred forty nine thousand nine hundred five dollars and sixty six cents ($26,549,905.66), with interest at seven percent (7%) per annum, pursuant to the terms of deed number thirteen (13), executed on December twenty one (21), nineteen seventy seven (1977), before Notary Public Julio L. Aguirre (hereinafter, the "Deed of Mortgage"), recorded at page one hundred forty two (142) of volume one hundred (100) of Vega Alta, Registry of the Property of Puerto Rico, Third Section of Bayamón (hereinafter, the "Registry"), property number six thousand seven hundred twenty four (6,724), first inscription, modified as per the terms of deed number fifty six (56), executed on March nineteen (19), nineteen ninety two (1992), before Notary Public Pedro Morell-Lozada, recorded at the margin of the second inscription (hereinafter, the "Mortgage"). The Mortgage encumbers the real property described at the Registry as follows (hereinafter, the "Property"): ----------

-----RUSTICA: Parcela de terreno de forma irregular radicada en el Barrio Sabana de Vega Alta Puerto Rico compuesta de treinta y tres cuerdas con siete mil seiscientos ochenta y cinco diezmilésimas de otra (33.7685) equivalente a ciento treinta y dos mil setecientos veintitrés metros cuadrados con cuarenta y dos centésimas de otro (132,723.42) equivalentes a su vez a treinta y dos acres con siete mil quinientos cincuenta y cinco diezmilésimas de otro (32.7555) lindes por el Norte, con terrenos propiedad de El Morro Corrugated Box Corporation, por el Sur, con terrenos de Luis Valdejuli, por el Este, igualmente con terrenos propiedad de Luis Valdejuli y por el Oeste, en parte con terrenos igualmente propiedad de Luis Valdejuli y en parte con la carretera Estatal Número Dos (#2) del Sector Cerro Gordo de la Playa de Vega Alta.------

---The Property is recorded at page twenty one (21) of volume one hundred fifty one (151) of the

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Registry, property number seven thousand seven hundred fifteen (7,715).----------

---The Property was formed by grouping of properties number seven thousand seven hundred fifteen (7,715) and six thousand seven hundred twenty four (6,724), recorded at pages twenty one (21) and one hundred forty two (142) of volumes one hundred fifty one (151) and one hundred (100) of the Registry, respectively.----------

---Owens Illinois de Puerto Rico, LLC, a Delaware limited liability company with its place of business in Puerto Rico, acquired title to the Property from the Mortgagor, pursuant to the terms of deed number eleven (11) executed on September eighteen (18), two thousand three (2003), before Notary Public Juan José Forastieri, filed and pending recordation at entry number one hundred twenty three (123) of volume four hundred forty nine (449) of the Book of Daily Entries of the Registry.----------

---The Property is subject to the following liens and encumbrances:----------

-----(a) By its origin, the Property is subject to: (i) right-of-way easement; and (ii) the Mortgage.----------

-----(b) By itself, the Property is free and clear.----------

---SECOND: It appears from the records of the Court, in civil case number 08-1627 (GAG), that on August seven (7), two thousand eight (2008), Seagate filed a Complaint for Collection of Monies and Foreclosure against Owens Illinois de Puerto Rico, LLC (hereinafter, the "Judgment Debtor"). Judgment was entered in favor of Seagate, which

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was filed on August twenty six (26), two thousand eight (2008), a copy of which will be presented as a supplementary document together with the first certified copy of this deed.----------

---**THIRD**: Upon the Judgment became final, the Court ordered the execution of the Mortgage through an Order of Public Sale in Execution of Judgment dated September sixteen (16), two thousand eight (2008), as amended by Amended Order of Public Sale in Execution of Judgment dated September thirty (30), two thousand eight (2008), copies of which will be presented as supplementary documents together with the first certified copy of this deed.----------

---**FOURTH**: The Clerk of the Court issued the corresponding Writ of Execution of Judgment dated September twenty three (23), two thousand eight (2008), as amended by Writ of Execution of Judgment dated October seven (7), two thousand eight (2008), copies of which will be presented as supplementary documents together with the first certified copy of this deed. Pursuant to said Writs of Execution of Judgment, the Property, encumbered by the Mortgage, was ordered to be sold at public auction to the highest bidder.---------

---**FIFTH**: In compliance with the aforementioned Writs of Execution of Judgment, the Special Master issued a Notice of Public Sale on October nine (9), two thousand eight (2008), a copy of which will be presented as a supplementary document together with the first certified copy of this deed.----------

---**SIXTH**: Said Notice of Public Sale was published in the "El Nuevo Día" newspaper, on Wednesday,

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PUERTO RICO
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October fifteen (15), two thousand eight (2008), Wednesday, October twenty two (22), two thousand eight (2008), and Wednesday, November five (5), two thousand eight (2008). Evidence of the publishing of the Notice of Public Sale was submitted by Seagate to the Court, and a sworn statement was subscribed by Lissette Cortés of said newspaper on November six (6), two thousand eight (2008), before Notary Public Frank González. A copy of the sworn statement subscribed by Lissette Cortés will be presented as a supplementary document together with the first certified copy of this deed. ----------

---**SEVENTH**: Pursuant to the Report of Special Master Upon Sale on Foreclosure dated December ten (10), two thousand eight (2008), as amended by Amended Report of Special Master Upon Sale on Foreclosure dated December twenty three (23), two thousand eight (2008), the Special Master certified to the Court that he posted copies of the Notice of Public Sale on the following localities: (i) the Revenue Collector's Office and City Hall of the Municipality of Vega Alta, Puerto Rico, where Judgment Debtor has its last known address; (ii) the bulletin board of the Superior Court of Dorado, Puerto Rico, judicial district where Vega Alta is located; and (iii) the bulletin board of the Superior Court, City Hall and the Revenue Collector's Office of the Municipality of Bayamón, Puerto Rico, where the public sale proceedings took place. ----------

---Further, on October sixteen (16), two thousand eight (2008), the Special Master delivered copies

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of the Notice of Public Sale to Judgment Debtor's last known addresses, via certified mail. --------

---**EIGHTH**: On November seventeen (17), two thousand eight (2008), at nine thirty in the morning (9:30 a.m.), the First Auction was held at the Office of the Marshall of the Court of First Instance of Puerto Rico, Superior Court of Bayamón. The minimum bid for the First Auction was fixed at twenty nine million two hundred four thousand dollars ($29,204,000.00), which was the foreclosure value stipulated in the deed of mortgage. No bidders appeared nor made an order at the First Auction, so it was declared deserted. ---On November twenty four (24), two thousand eight (2008), at nine thirty in the morning (9:30 a.m.), the Second Auction was held at the Office of the Marshall of the Court of First Instance of Puerto Rico, Superior Court of Bayamón. The minimum bid for the Second Auction was fixed at nineteen million four hundred sixty nine thousand three hundred thirty three dollars and thirty three cents ($19,469,333.33) which is two thirds (2/3) of the foreclosure value. No bidders appeared nor made an order at the Second Auction, so it was declared deserted. ----------

---On December one (1), two thousand eight (2008), at nine thirty in the morning (9:30 a.m.), the Third Auction was held at the Office of the Marshall of the Court of First Instance of Puerto Rico, Superior Court of Bayamón. The minimum bid for the Third Auction was fixed at fourteen million six hundred two thousand dollars ($14,602,000.00), which is half (1/2) of the foreclosure value. No bidders appeared nor made

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an order at the Third Auction, so it was declared deserted. Consequently, consonant with Article Two Hundred Twenty One (221) of the Puerto Rico Mortgage Law, 30 L.P.R.A. § 2721, judgment creditor Seagate, through its counsel and authorized representative Shylene De Jesús, elected to receive the Property subject to the Mortgage and Judgment, in full satisfaction of the Judgment entered by the Court, which amounts to nine million nine hundred ninety nine thousand nine hundred twelve dollars and sixty nine cents ($9,999,912.69) of principal, plus interest due and owed as of August seven (7), two thousand eight (2008), equal to two hundred sixty two thousand eight hundred seventy dollars and twenty four cents ($262,870.24), plus the amount of forty two thousand one hundred eight dollars and eighteen cents ($42,108.18) of interest accrued from August seven (7), two thousand eight (2008), until August twenty six (26), two thousand eight (2008), and the amount of two million six hundred fifty four thousand nine hundred ninety dollars and fifty six cents ($2,654,990.56) for the concept of costs and attorneys fees stipulated by the parties in the Deed of Mortgage, for a grand total of twelve million nine hundred fifty nine thousand eight hundred eighty one dollars and sixty seven cents ($12,959,881.67). ----------

---**NINTH:** As reflected in the aforementioned Report of Special Master Upon Sale on Foreclosure and Amended Report of Special Master Upon Sale on Foreclosure, on October sixteen (16), two thousand eight (2008), the Special Master delivered, via certified mail, copies of the Notice of Public

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Sale to Judgment Debtor's last known addresses to wit Post Office (P.O.) Box three hundred eighty seven (387) Vega Alta, Puerto Rico, zero zero six hundred ninety two dash zero three hundred eighty seven (00692-0387); Kilometer (Km.) twenty eight (28) of Duarte Highway, Santo Domingo, Dominican Republic. Copies of said Report of Special Master Upon Sale on Foreclosure and Amended Report of Special Master Upon Sale on Foreclosure will be presented as supplementary documents together with the first certified copy of this deed.----------

---**TENTH**: The Special Master, as appointed by the Court pursuant to the aforementioned Order of Public Sale in Execution of Judgment and Amended Order of Public Sale in Execution of Judgment, and further authorized to appear in this deed by virtue of Order of Confirmation of Sale dated December ten (10), two thousand eight (2008), as amended by Amended Order of Confirmation of Sale dated December twenty nine (29), two thousand eight (2008), and Writ Upon Confirmation of Sale issued on December fifteen (15), two thousand eight (2008), as amended by Writ Upon Confirmation of Sale issued on January eight (8), two thousand nine (2009), hereby ASSIGNS, ADJUDICATES, and TRANSFERS in favor of Seagate the Property described in paragraph FIRST of this deed, with all of its uses, rights, accessions, and easements, and without any condition or limitation whatsoever. Copies of said Order of Confirmation of Sale, Amended Order of Confirmation of Sale, and Writs Upon Confirmation of Sale will be presented as supplementary documents together with the first certified copy of this deed.----------

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---ELEVENTH: That this judicial sale is done free from the Mortgage. Seagate hereby delivers to me, the Notary, the original of the mortgage note described in paragraph FIRST, which is secured by with the Mortgage, and requests to cancel said mortgage note and the Mortgage.----------

---I, the Notary, after having verified the authenticity of said mortgage note, and that Seagate is the bearer and legal holder thereof, proceed to cancel it by writing on its face the word "**CANCELLED**", as per Seagate's request, leaving said mortgage note attached to the original of this deed so as to form part of my protocol of public instruments for the current year.----------

---**TWELFTH**: It is respectfully requested from the Registrar of the Property that the aforementioned mortgage note and the Mortgage be cancelled pursuant to the provisions of Article One Hundred Thirty Four (134) of the Puerto Rico Mortgage Law, 30 L.P.R.A. § 2458, for said lien having been executed at public auction, and that the transfer of title of the Property in favor of Seagate be recorded in the Registry.----------

----------**ACCEPTANCE**----------

---The appearing parties accept this deed as drafted and confirm that the same has been drawn in accordance with their instructions and I, the Notary, do hereby certify that I have advised the appearing parties (i) that this deed must be recorded in the corresponding section of the Registry of the Property of Puerto Rico, which recording the appearing parties have agreed will be performed by a third party unrelated to the

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Notary, for which reason, such parties herein agreed that the Notary shall not be responsible for such filing; (ii) of the possibility of intervening documents affecting the title of the Property being filed for recordation prior to the execution and/or presentation of this deed and of the preference or seniority that said intervening liens and/or encumbrances may gain by such prior execution or earlier presentation; (iii) of the advisability of verifying the environmental status of the Property; (iv) of the possible existence and pendency of additional unrecorded statutory liens and real property taxes (including the statutory preferred legal mortgage in favor of the Commonwealth of Puerto Rico); (v) of the statutory requirement that the conveying party give notice of this transaction to the Department of the Treasury of the Commonwealth of Puerto Rico; (vi) that the Property described and the liens and encumbrances over the Property are listed herein as reflected by certain recent title report prepared by a third independent party and not by the undersigned Notary; and (vii) that if the Property is located within a floodable zone, any title holder or occupant of the same, present and future, is bound by law to observe and comply with the requirements and provision of the Regulation of Zones Susceptible to Floods, the warning that the violation of the same constitutes an illegal act, in accordance with the provisions of Act Number Three (3) of September twenty seven (27), nineteen sixty one (1961) of Floodable Zones, as amended, 23 L.P.R.A. § 225(g).----------

---I, the Notary, have further advised the appearing parties of the consequences arising from

the acquisition and/or transfer of a contaminated property as well as of the problems and risks represented by the acquisition of land in such state and have advised them about the convenience of preparing an environmental audit in order to have the protection afforded by the Comprehensive Environmental and Liability Act of the United States, Title Forty Two (42) of the United States Code, Sections Nine Thousand Six Hundred One (9,601) and subsequent. The authorizing Notary also advised the appearing parties of any proprietary interest in any residential property built before the year nineteen seventy eight (1978) that they hereby are duly notified that such property may present exposure to lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems and impaired memory. Lead poisoning also poses a risk to pregnant women. Under Section One Thousand Eighteen (1018) of Title Ten (10) of the United States Code, the Residential Lead-Based Paint Hazard Reduction Act of 1992, 42 U.S.C. § 4852(d), the seller of any interest in residential property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in seller's possession and notify the buyer of any known lead-based paint hazards. A risk assessment or inspection for possible lead-based paint hazard is recommended prior to purchase. The appearing parties hereby acknowledge that the authorizing Notary has informed them of their rights under the

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aforementioned federal law, and therefore release him of responsibility on that related to the disclosure on lead-based paint. ----------

---I, the Notary, having given the pertinent legal caveats, and the parties hereto having read this deed, after being advised of their right to have witnesses present at its execution, which right they waived, they ratify the contents hereof and find it to be in accordance with their wishes, and they all sign the same and place their initials on each and every one of its pages.----------

---I also certify and attest that the appearing parties and I know and fully understand the English language.----------

---As to everything affirmed or related by me herein, I, the undersigned Notary, DO HEREBY ATTEST. ----------

---I further certify and attest that the Employer ---------- Identification Number of Seagate Inc. is 66-0447416. I, -- the Notary, DO HEREBY ATTEST. ----------

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MORTGAGE NOTE

ONE: FOR VALUE RECEIVED, the undersigned, (hereinafter called the Maker(s) promise to pay to the order of the person mentioned in paragraph EIGHT of this Mortgage Note (hereinafter called the Holder), at such place as the Holder may from time to time designate in writing the principal sum and interest established in paragraph NINE of this Mortgage Note; payable as established in said paragraph NINE.

TWO: The Maker(s) or any subsequent owner(s) of the Mortgaged Property (as such term is defined in the Mortgage securing this Mortgage Note) shall have the right to prepay the entire principal sum without penalty on any monthly installment date.

THREE: In the event default be made in the payment of any of the installments under this Note and if such default is not mademade good prior to the date of the next such installment, the entire principal sum and accrued interest shall at once become due and payable without notice at the option of the Holder. Failure to exertise this option, shall not constitute a waiver of the right to exercise same in the event of any subsequent default.

FOUR: Presentment, protest, demand and notice of nonpyament are hereby waived.

FIVE: Should this Mortgage Note be signed by more than one Maker, all the obligations herein contained shall be the joint and several obligations of each signer hereof.

SIX: This Mortgage Note is secured by a mortgage upon real property constituted on this same date, before the subscribing Notary, Deed Number Thirteen).

SEVEN: In case recourse to the courts by the Holder of this Mortgage Note becomes necessary in order to collect the whole or a portion of the amount of this Mortgage Note, the Maker(s) agrees to pay the court expenses, disbursements and attorney's fees which may be incurred in the amount of 10% of the principal sum of this Mortgage Note.

EIGHT: This Mortgage Note is payable to Bearer.

NINE: The principal sum of this Mortgage Note is TWENTY SIX MILLION FIVE HUNDRED FORTY NINE THOUSAND NINE HUNDRED FIVE DOLLARS AND SIXTY SIX CENTS ($26,549,905.66) at the rate of seven percent (7%) per annum, payable on demand.

In San Juan, Puerto Rico, this 21st day of December, 1977.

OWENS ILLINOIS DE PUERTO RICO

by: D E Maxwell
David E. Maxwell
General Manager

COMMONWEALTH OF PUERTO RICO)
)
CITY OF SAN JUAN)

Affidavit No. 2730 :

Subscribed to before me by David E. Maxwell, of legal age, married, business executive, and resident of San Juan, Puerto Rico, as General Manager of Owens Illinois de Puerto Rico, at San Juan, Puerto Rico, this 21st day of December, 1977.

Notary Public

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The prescriptive term for the payment of this obligation and the foreclosure of the Mortgage that secures it has been extended until March 19, 2012 pursuant to deed number 56 executed on March 19, 1992 before the undersigned Notary.

PEDRO MORELL LOSADA
PUERTO RICO
ABOGADO NOTARIO

Pedro Morell Losada
Notary

CONFIDENTIAL

EXHIBIT D

April 9, 2009 Lease

CONFIDENTIAL

LEASE

ROAD 690, KM 1.1
VEGA ALTA, PUERTO RICO 00692

SEAGATE, INC.
Landlord

And

O-I CARIBBEAN SALES & DISTRIBUTION, INC.
Tenant

Dated: April 9, 2009

CONFIDENTIAL

LEASE

THIS LEASE is entered into as of this 9th day of April, 2009, by and between SEAGATE, INC., an Ohio corporation ("Landlord"), and O-I CARIBBEAN SALES & DISTRIBUTION, INC., a Delaware corporation ("Tenant").

ARTICLE 1
DEFINITIONS

Section 1.1 Defined Terms. As used herein, the following terms and phrases

"Additional Rent" means all amounts which Tenant is required to pay pursuant to this Lease (other than Minimum Rent), together with every fine, penalty, interest and cost which may be added for non-payment or late payment thereof.

"Alteration" means any alteration, repair, addition, construction, improvement, or modification of or to the Premises and/or any and every installation in the Premises.

"Building" means the building located on the Land.

"Condemnation" (or to "Condemn") means any and every taking (whether temporary or permanent) for any public or quasi-public purpose, by any Governmental Entity by exercise of condemnation or eminent domain (or any transfer or conveyance by agreement in lieu thereof).

"Governmental Entity" means the United States, the Commonwealth of Puerto Rico, any municipality, including, without limitation, the Municipality of Vega Alta, and any and every other agency, department, commission, rule-making body, bureau, instrumentality, and/or political subdivision of government of any kind whatsoever, now existing or hereafter created, now or hereafter having jurisdiction over the Premises and/or the use, occupancy, possession, operation and/or maintenance of the Premises.

"Insurance Costs" means premiums payable by Landlord for liability, property damage, fire, workers' compensation, and other insurance (including, without limitation, all insurance, hazard, rent and otherwise, from time to time carried by the Landlord on the Premises).

"Insurance Requirements" means all terms of any insurance policy covering or applicable to the Premises or any part thereof, all requirements of the issuer of any such policy, and all orders, rules, regulations and other requirements of the National Board of Fire Underwriters (or any other body exercising similar functions) applicable to or affecting the Premises or any part thereof or any use or condition of the Premises or any part thereof.

"Land" means the parcel of land of approximately 33.7685 cuerdas, equivalent to 132,723.42 square meters, located in the Sabana Ward of the Municipality of Vega Alta, Puerto Rico, as more particularly described in Exhibit A attached hereto.

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"Landlord Parties" means Landlord, Landlord's affiliates, any managing agent of the Premises and their respective officers, directors, members, shareholders, agents and employees and any holder of a Mortgage.

"Law" or "Laws" means each and every law, rule, regulation, order, ordinance, statute, requirement, code, or executive mandate of any kind whatsoever, present or future, issued by any Governmental Entity applicable to or affecting the Premises and/or the use, occupancy, possession, operation, and/or maintenance of the Premises, including, without limitation, Environmental Laws and the Americans with Disabilities Act (42 U.S.C. § 12101 et. seq.) and the regulations and Accessibility Guidelines for Buildings and Facilities issued pursuant thereto.

"Minimum Rent" means the following amounts: $25,000/month.

"Mortgage" means any and every mortgage now a lien, or hereafter becoming a lien, upon the Premises.

"Premises" means the Building, the Land and all improvements and fixtures located thereon.

"Real Estate Taxes" means (i) all taxes and assessments and other governmental impositions, charges and levies, general and special, ordinary and extraordinary, unforeseen as well as foreseen, of any kind and nature (including existing and future assessments for road, sewer, utility and other local improvements) levied or assessed directly or indirectly during the Term upon all or any portion of the Premises and other taxes arising out of the use and/or occupancy of the Premises, (ii) interest on installment payments, and (iii) all costs, fees and expenses incurred by Landlord in contesting Taxes. Taxes shall not include any inheritance, estate, transfer, gift, income, or profit tax that may be otherwise imposed upon Landlord.

"Rent" or "Rents" means, collectively, Minimum Rent and Additional Rent.

"Tenant Parties" means Tenant, Tenant's affiliates and their respective officers, directors, members, shareholders, agents and employees.

Certain other words and phrases are defined elsewhere in this Lease and/or the Exhibits hereto.

Section 1.2 Construction. Wherever used in this Lease,

(a) The words "include" or "including" shall be construed as incorporating "but not limited to" or "without limitation";

(b) The phrase "at Tenant's expense" means at the sole and exclusive expense of Tenant, who shall be responsible for all costs involved in, or associated with, the applicable matter; and

(c) The phrase "in Landlord's judgment" means in Landlord's sole and exclusive discretion and judgment.

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(d) Wherever this Lease imposes any obligation upon Tenant, or provides that Tenant shall be responsible for any action or matter, this Lease shall be construed to mean that Tenant shall perform or undertake the matter at Tenant's expense, unless expressly specified otherwise.

(e) Captions of this Lease are solely for convenience of reference and shall not in any way limit or amplify the terms and provisions hereof.

(f) The necessary grammatical changes which shall be required to make the provision of this Lease apply (i) in the plural sense if there shall be more than one Landlord or Tenant, and (ii) to any Landlord or Tenant which shall be either a corporation, an association, a partnership, or an individual, male or female, shall in all instances be assumed as though in each case fully expressed.

ARTICLE 2
DEMISE; TERM

Section 2.1 Demise. Landlord hereby leases to the Tenant and the Tenant hereby leases from the Landlord, the Premises upon and subject to the terms and provisions of this Lease.

Section 2.2 Initial Term. The initial term of this Lease (the "Initial Term") shall commence on 9 April, 2009 (the "Commencement Date"), and end at midnight on 8 April, 2011 (the "Expiration Date"), unless sooner terminated as hereinafter expressly provided. As used herein, "Term" or "term of this Lease" means the Initial Term, unless otherwise expressly provided.

ARTICLE 3
MINIMUM AND ADDITIONAL RENT

Section 3.1 Minimum Rent.

(a) During the Term, Tenant shall pay the Minimum Rent to Landlord, without any offset or deduction whatsoever except as may be otherwise set forth herein, and without any prior demand therefor, on the first day of each month, in arrears, commencing on the first day of the month following the Commencement Date, to the following address or such other address as Landlord shall designate in writing from time to time:

SEAGATE, INC.
One O-I Plaza
One Michael Owens Way
Perrysburg, OH 43551-2999
Attention: Corporate Secretary

(b) If the Commencement Date is not the first day of a month, Minimum Rent for the period commencing on the Commencement Date and ending on the last day of the month in which the Commencement Date occurs shall be apportioned on the basis of a thirty (30) day month and paid on the first day of the month following the Commencement Date.

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Section 3.2 Taxes.

(a) Tenant shall pay to Landlord each month, together with Tenant's monthly installment of Minimum Rent, a sum equal to all taxes, municipal license taxes ("patentes municipales") and other governmental impositions now or hereafter imposed and/or assessed upon the Rent and other charges and consideration to be received by Landlord for this Lease, including, but not limited to, sales, business and occupancy, gross receipts, municipal license taxes ("patentes municipales") and other similar taxes; and, if Landlord is legally responsible for the payment thereof, upon all personal property of Tenant. Nothing in this Section shall require Tenant to pay for Landlord's income taxes.

(b) Tenant shall pay all taxes which may be lawfully charged, assessed, or imposed upon all fixtures and equipment of every type and also upon all personal property in the Premises, and Tenant shall pay all license fees and other charges which may lawfully be imposed upon the business of Tenant conducted upon the Premises.

(c) During the Term, Tenant shall pay Landlord as Additional Rent an annual amount (the "Tax Payment") equal to the annual Real Estate Taxes. Tenant shall pay the Tax Payment in semi-annual installments within fifteen (15) days after delivery to Tenant of a copy of a tax bill showing the amount of Real Estate Taxes and a statement (the "Tax Statement") setting forth such amounts.

(d) Landlord's delay in rendering a Tax Statement with respect to any year shall not prejudice Landlord's right thereafter to render a Tax Statement with respect to that (or any other) year. Each Tax Statement shall be conclusive and binding upon Tenant unless within ten (10) days after receipt Tenant notifies Landlord that Tenant disputes the correctness of such statement, specifying the particular respects in which the same statement is allegedly incorrect. Pending the determination of any such dispute, Tenant shall make all payments in accordance with the disputed statement without prejudice to Tenant's position.

(e) A Tax Payment (or any refund thereof pursuant to this Section 3.2) covering or relating to any fiscal period which includes a period before the Commencement Date or after the Expiration Date shall be apportioned between Landlord and Tenant on a per diem basis.

(f) If, after Tenant shall have made a payment of Taxes, Landlord shall have received a refund of any portion of the Real Estate Taxes on which such payment shall have been based, Landlord shall, at its option, refund to Tenant the net refund, after deducting all expenses (including, without limitation, interest, penalties, reasonable attorneys' fees and appraisers' fees) incurred in obtaining such refund and not already included in Taxes, or credit such net refund against the subsequent installments of the Tax Payment due from Tenant.

(g) Only Landlord shall be eligible to institute proceedings to contest the Real Estate Taxes or reduce the assessed valuation of the Premises. Landlord shall be under no obligation to contest the Real Estate Taxes or the assessed valuation of the Premises for any year or to refrain from contesting the same, and may settle any such contest on such terms as Landlord in its sole judgment considers proper.

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(h) Tenant acknowledges that Landlord may have received or may hereafter receive exemptions, abatements or credits with respect to Real Estate Taxes which relate to another party or different premises. Tenant shall not be entitled to the benefit of any such exemptions, abatements or credits and Real Estate Taxes will be determined on the basis of the full assessed value of the Premises without regard to any such tax exemptions, abatements or credits.

(i) The rights and obligations of Landlord and Tenant under this Section 3.2 shall survive the expiration of the Term or other termination of this Lease; and Tenant shall pay all amounts due under this Section 3.2 even if Landlord gives a Tax Statement after the Expiration Date or any earlier termination of this Lease.

(j) The foregoing provisions of this Section 3.2 are predicated upon the present system of taxation in the Commonwealth of Puerto Rico. Should any Governmental Entity having jurisdiction over all or any portion of the Premises impose a tax and/or assessment of any kind or nature upon, against, measured by or with respect to the rentals payable by Tenant to Landlord or with respect to the ownership of the Premises by Landlord (or any individual or entity forming Landlord), either by way of substitution for all or any part of the present ad valorem real estate taxes or in addition thereto, then such tax and/or assessment shall be deemed to constitute "Taxes" for the purposes of this Lease and Tenant shall be obligated to pay such amount. Further, if there is any other change in the system of taxation (other than as set forth immediately above) which is in substitution of or in addition to the present system, Tenant shall be responsible as well.

Section 3.3 Insurance Costs.

(a) During the Term, Tenant shall pay Landlord as Additional Rent an annual amount (the "Insurance Payment") equal to the annual Insurance Costs. Tenant shall pay the Insurance Payment within fifteen (15) days after delivery to Tenant of a copy of an invoice showing the amount of Insurance Costs and a statement (the "Insurance Statement) setting forth such amounts.

(b) Landlord's delay in rendering an Insurance Statement with respect to any year shall not prejudice Landlord's right thereafter to render an Insurance Statement with respect to that (or any other) year. Each Insurance Statement shall be conclusive and binding upon Tenant unless within ten (10) days after receipt Tenant notifies Landlord that Tenant disputes the correctness of such statement, specifying the particular respects in which the same statement is allegedly incorrect. Pending the determination of any such dispute, Tenant shall make the Insurance Payment in accordance with the disputed statement without prejudice to Tenant's position.

(c) An Insurance Payment covering or relating to any fiscal period which includes a period before the Commencement Date or after the Expiration Date shall be apportioned between Landlord and Tenant on a per diem basis.

(d) The rights and obligations of Landlord and Tenant under this Section 3.3 shall survive the expiration of the Term or other termination of this Lease; and Tenant shall pay

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all amounts due under this Section 3.3 even if Landlord gives an Insurance Statement after the Expiration Date or any earlier termination of this Lease.

Section 3.4 Payment of Additional Rent. Landlord shall have the same rights (and remedies) to terminate this Lease and/or to recover possession of the Premises for Tenant's failure to pay any Additional Rent as for Tenant's failure to pay Minimum Rent.

Section 3.5 No Accord and Satisfaction. No payment by Tenant or receipt by Landlord of a lesser amount than the Rent herein stipulated shall be deemed to be other than an account of the earliest stipulated Rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or pursue any other remedy in this Lease provided.

Section 3.6 Late Charge. If any installment of Rent is not paid when due, Tenant shall pay to Landlord, on demand, as Additional Rent, a late charge ("Late Charge") equal to five percent (5%) on such overdue installment of Rent.

ARTICLE 4
CONDITION OF PREMISES; REPAIRS AND MAINTENANCE

Section 4.1 Condition of Premises. Tenant acknowledges that it has examined to its satisfaction the Premises and the present uses and non-uses thereof. Tenant is fully familiar with the condition of the Premises and agrees that the Premises comply in all respects with the requirement of this Lease and Tenant shall accept the Premises "as is" with no work of any sort to be performed by Landlord. Landlord does not make, and Tenant acknowledges that Landlord has not made or given, any representation or warranty, express or implied, with respect to the Premises or the present or future condition, quality, fitness or suitability of the Premises or any part thereof in any respect or in connection with the purposes and uses of Tenant, or, except as specifically set forth herein, any other representation or warranty of any kind or character, express or implied, with respect thereto, and Landlord shall not be liable for any latent or patent defects in the Premises or any part thereof, all of which are hereby expressly and unconditionally waived by Tenant.

Section 4.2 Repairs and Maintenance by Tenant.

(a) Throughout the Term, Tenant shall, at its own expense, take good care of the Premises and will maintain and promptly make all necessary repairs, replacements, interior and exterior, nonstructural, ordinary and extraordinary, unforeseen and foreseen, to keep the Premises in good order and repair. All repairs and replacements made by Tenant shall be equal or similar in quality and class to the original work. Landlord shall not be required to furnish any services or facilities or to make any repairs or alterations in or to the Premises. Tenant hereby assumes the full and sole responsibility for the condition, operation, repairs, replacement, maintenance and management of the Premises. Tenant shall, at its expense, keep the Premises free of insects, rodents, vermin and other pests.

(b) Notwithstanding the preceding paragraph, Tenant shall not be required to make any repairs or replacements to the Premises which are necessitated by the default or

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negligence or willful acts of Landlord, its agents, employees, licensees or contractors, and Landlord agrees to make said repairs and replacements at Landlord's expense.

(c) Notwithstanding anything in this Section to the contrary, in the event Tenant fails to undertake any repairs following the expiration of any applicable notice and cure period, Landlord expressly reserves the right to undertake any such repairs that are the obligation of Tenant as described hereinabove and charge-back the cost of such repairs plus an administrative fee of 18% to Tenant, which amount shall be due and payable as Additional Rent within ten (10) day after demand therefor.

Section 4.3 Compliance with Legal and Insurance Requirements, etc.

(a) Tenant at its expense will comply with all Laws and Insurance Requirements, whether ordinary or extraordinary, structural or nonstructural, foreseen or unforeseen, and whether or not compliance shall require structural changes in the Premises or interfere with the use or enjoyment of the Premises or any part thereof and will comply with any instruments of record at any time in force affecting the Premises or any part thereof if the failure to comply with the same may result in the creation of a lien, liability or forfeiture of title. Without limiting the generality of the foregoing, Tenant shall comply with all requirements of the Americans With Disabilities Act of 1990, as amended, and the Resource Conservation Recovery Act, 42 U.S.C. §§6901 et seq., as amended, and shall not use or occupy or permit the Premises to be used or occupied, nor do, or permit anything to be done, in, on or about the Premises, in whole or in part, in a manner which would in any way make void or voidable any insurance then in force with respect thereto, or make it impossible to obtain fire or other insurance thereon, or which will cause or be apt to cause structural injury to the Premises or any part thereof.

(b) Without limiting the foregoing, if any Governmental Entity requires the installation of an automatic sprinkler system in the Premises, Tenant shall install such system at Tenant's cost. In the event that there is an automatic sprinkler system in the Premises on the Commencement Date, Landlord makes no representations or warranties with respect to the condition or adequacy of such system. If any modifications to such system are necessary to comply with Law, Tenant shall make such modifications at Tenant's sole cost and expense.

ARTICLE 5
USE

Section 5.1 Use. Tenant shall use the Premises solely for administration offices and manufacturing and warehousing purposes, and for no other purpose. Tenant agrees that it will not permit any unlawful occupation, business or trade to be conducted on the Premises or any use to be made thereof contrary to any legal requirements or other provisions of this Lease. Tenant shall not use or occupy or permit the Premises to be used or occupied, nor do or permit anything to be done in or on the Premises or any part thereof, in a manner that would in any way violate any certificate of occupancy or use permit affecting the Premises. Tenant shall be solely responsible for obtaining any use permit or any other licenses or endorsements from the corresponding Governmental Entities which are necessary for Tenant's use and occupancy of the Premises in accordance with applicable Law. The failure of Tenant to obtain any such permits,

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licenses and/or endorsements shall not entitle Tenant to any (a) adjournment of the Commencement Date, (b) abatement of Rent, or (c) right to terminate this Lease.

Section 5.2 Restrictions. Tenant shall not, without Landlord's prior written consent, given in Landlord's sole discretion, use any portion of the Premises: (i) to damage, deface or intentionally overload the plumbing, electrical or structural systems of the Premises; (ii) to conduct any activity which may make void or voidable or increase the premium on any insurance coverage on the Premises or parts thereof following notice thereof from Landlord; (iii) for the placement of any aerial or antenna on the roof or exterior walls of the Building; or (iv) for the display of billboards or large advertisements whether free-standing, painted upon or affixed to the exterior of any structure.

Section 5.3 Plumbing. Tenant shall not use the plumbing and drainage facilities for any purpose other than that for which they are constructed. No foreign substance of any kind shall be thrown therein or otherwise dumped on or about the Premises. The expense of any breakage, stoppage, mandatory clean-up or damage resulting from a violation of this Section shall be borne by Tenant.

Section 5.4 Floor Load. Tenant shall not place a load on any floor in the Premises exceeding the floor load which such floor was designed to carry, nor shall Tenant install, operate or maintain therein any heavy item or equipment except in such manner as to achieve a proper distribution of weight.

Section 5.5 Electrical Equipment. Tenant shall not install, operate or maintain in the Premises any electrical equipment which does not bear underwriter's approval, or which would overload the electrical system or any part thereof beyond its capacity for proper and safe operation as determined by Landlord. No generators shall be permitted without Landlord's prior written consent. If Landlord consents to the installation of a generator, the installation must comply with all applicable laws and regulations. Additional energy demands and/or equipment needs above those originally provided with the Premises shall be the responsibility of Tenant and must be previously approved in writing by Landlord, to ensure compatibility with existing equipment and installations. Any such additional equipment (including, without limitation, any generator installed by Tenant) shall, upon the expiration or earlier termination of the Term, automatically become the property of Landlord.

ARTICLE 6
ALTERATIONS

Section 6.1 Alterations.

(a) Tenant shall not make any Alterations, structural or non-structural, in and to the Premises without the prior written consent of Landlord.

(b) Landlord will not unreasonably withhold consent to any Alteration which is not a Major Alteration. A "Major Alteration" is any Alteration which will:

(i) require amendment of any certificate of occupancy or use permit for the Premises;

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(ii) require the consent of any (A) insurer under any policy of insurance covering the Premises or (B) holder of a Mortgage.

(c) With respect to every Major Alteration (unless Landlord waives such requirement in writing in any case), Tenant shall cause all necessary designs, plans and specifications for a proposed Major Alteration to be prepared at Tenant's expense by an architect (or engineer, if appropriate) licensed by the Commonwealth of Puerto Rico and shall submit the same to Landlord for Landlord's written approval; provided, however, that Landlord's approval (if given) shall not imply that the Major Alteration is properly designed or complies with Laws. Tenant shall pay Landlord, the cost of Landlord's review by architects and/or engineers, field inspection, coordination, and other indirect costs of Landlord with respect to any Major Alteration.

(d) With respect to every Alteration:

(i) Tenant shall procure or cause to be procured all permits, approvals, consents, licenses and filings of any kind required by Laws.

(ii) Tenant shall obtain (and pay any additional costs for) the consent of any insurer to such Alteration if such consent is required to keep any insurance policy covering the Premises in full force and effect.

(iii) Tenant shall undertake, prosecute, and complete all work in connection with the Alteration continuously and expeditiously and in a good and workmanlike manner; and Tenant shall incorporate in the Alteration only new materials (and equipment, if applicable) of the best quality specified in the plans and specifications.

(iv) Tenant will inform Landlord in writing of the names of any contractor or subcontractor Tenant proposes to use in the Premises at least ten (10) days prior to the beginning of work by such contractor or subcontractor. Tenant shall employ only contractors approved by Landlord in writing.

(v) Tenant shall pay each contractor, as the work progresses, the entire cost of supplying the materials and performing the work shown on Tenant's approved plans and specifications, subject to a reasonable retainage.

(vi) Tenant shall cause the Alteration to be installed in compliance with Laws.

(vii) Tenant and Tenant's contractors shall allow access for inspection by Landlord's representatives at all reasonable times (but this provision shall not obligate Landlord to conduct any such inspections).

(viii) Tenant shall obtain all necessary asbestos certifications and comply with all Laws regarding the environment, as the same may be amended, including the removal of any materials containing asbestos.

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(ix) Tenant shall have the right to install machinery, equipment, appurtenances, trade fixtures, and furniture, and such installations shall remain property of tenant, and Tenant shall cause the withdrawal of said installations at his own cost upon the expiration of the term of this lease, unless Landlord agrees in advance and in writing that such installations may remain in the Premises, and in which case shall become property of Landlord.

(e) If Landlord elects, Tenant shall, at Tenant's sole expense, deliver to Landlord the following, each in a form satisfactory to Landlord, before commencing any Major Alteration:

(i) a payment bond guaranteeing to Landlord and/or Landlord's assigns Tenant's timely payment for all labor, services, materials and equipment furnished in connection with the Alteration or any portion thereof (and to all persons or firms furnishing the same);

(ii) a performance bond guaranteeing to Landlord and/or Landlord's assigns Tenant's full and faithful completion of the Alteration in accordance with the plans and specifications approved by Landlord;

(iii) certificates of insurance evidencing the following coverages carried by Tenant's contractor (A) workmen's compensation insurance, with adequate statutory limits; (B) commercial general liability for (1) damages because of bodily injury (including death) to contractor's employees and all others, with limits of not less than $2,000,000, (2) for damages to property with limits of not less than $2,000,000; or (3) which otherwise arise out of or result from Tenant's contractor's work under the contract, whether such work (including operation of vehicles) be by such contractor or any subcontractor or others directly or indirectly employed or contracted by either; and (C) builder's all risk insurance in the full amount of the contract sum. All such insurance (other than the insurance described in clause (A)) shall name Landlord and Tenant as additional insured.

(iv) Tenant shall cause all work to be undertaken under the supervision of a licensed architect or licensed professional engineer reasonably satisfactory to Landlord.

(f) Landlord shall not be responsible for any labor or materials furnished to Tenant or for delays of any kind experienced by Tenant's contractors. No lien for any labor, materials, or other services or things furnished to Tenant shall attach to or affect Landlord's estate or interest in the Premises. Tenant agrees to discharge, at Tenant's expense (whether by payment, bonding, or otherwise) every lien filed against the Premises for work claimed to have been done for, or materials claimed to have been furnished, to Tenant, within thirty (30) days after receiving notice of the same. Tenant shall require that all contractors and subcontractors engaged in connection with Tenant's Alterations indemnify and hold Landlord harmless against any and all claims for injury to persons or damage to property by reason of such contractor's or

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subcontractor's use of the Premises or performance of the work, including any claims, fines and penalties imposed due to a failure to comply with Laws.

Section 6.2 Signs. Subject to the provisions of this Section, Tenant shall have the non-exclusive right to place signs bearing Tenant's name on the exterior walls of the Building. The size, design, number and location of such signs must be approved in advance by Landlord and must comply with Law. Tenant shall, at its own cost and expense, acquire and maintain all permits for and, at its own expense, shall design, fabricate and install any such approved signs. Tenant shall pay all costs to maintain and keep in good repair and aesthetic condition all such signs. Upon expiration or termination of this Lease, Tenant shall promptly remove all such signs at its own expense and repair and repaint any damage and discoloration caused by such removal or original installation.

ARTICLE 7
SERVICES AND UTILITIES

Section 7.1 Utilities. Tenant shall (i) contract with the corresponding Governmental Entities or any other third parties for all the utilities (gas, water, sewer, telephone, electricity, etc.) to be furnished at the Premises and (ii) pay all deposits, installation fee, and/or charges for such utilities to be furnished to the Premises during the Term.

Section 7.2 No Obligation by Landlord. Landlord shall not be required to furnish to Tenant any utilities or services of any kind whatsoever during the Term of this Lease, and Landlord shall not be liable for the failure of any utilities or services, or Tenant's inability to obtain any utilities or services, for any reason whatsoever.

Section 7.3 No Abatement. Since Landlord has no obligation to provide utilities or services to the Premises, no stoppage or interruption of utilities or services to the Premises shall entitle Tenant to any diminution or abatement of Rent or any other compensation whatsoever, or result in reduction of any of Tenant's obligations under this Lease or constitute or be construed as a constructive or other eviction of Tenant or disturbance of Tenant's use and possession of the Premises or a breach by Landlord of any of its obligations hereunder.

ARTICLE 8
ACCESS

Section 8.1 Right of Entry. Landlord or any mortgagee or any other party designated by Landlord, and their respective agents, shall have the right to enter the Premises at all reasonable times, upon reasonable notice (except no notice shall be required in the case of an emergency), to (i) examine the Premises, (ii) show to prospective purchasers or mortgagees and their respective agents and representatives, and, during the last twelve (12) months of the Term, to prospective tenants, and (iii) make such repairs, alterations or additions to the Premises (a) which Landlord may elect to perform following Tenant's failure to perform, which failure continues, other than in case of an emergency, beyond the expiration of any applicable cure period, (b) as Landlord may deem necessary pursuant to the terms of this Lease, or (c) to comply with any Laws.

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Section 8.2 No Liability. In the event Landlord elects to undertake any of the foregoing work or repairs, Landlord shall not be liable to Tenant for any disturbance, loss of business or other damage to Tenant by reason of the making of such repairs or the performance of such work in the Premises, or on account of bringing materials, supplies and equipment into or through the Premises during the course thereof; and the obligations of Tenant under this Lease shall not thereby be affected in any manner whatsoever

ARTICLE 9
LIABILITY; INDEMNITIES

Section 9.1 Limitation of Liability. (a) Anything to the contrary in this Lease notwithstanding, the covenants contained in this Lease to be performed by Landlord shall not be binding personally, but instead said covenants are made for the purpose of binding only the interest of Landlord in the Premises. In addition, in the event of any sale, conveyance, assignment or transfer (collectively, a "Transfer") of Landlord's interest in the Premises (or upon any subsequent Transfer by such subsequent landlord), the transferor automatically shall be relieved of any and all obligations on the part of Landlord hereunder accruing from and after the date of such Transfer.

(b) Notwithstanding anything to the contrary herein, neither Landlord, nor any director, officer, member, partner, trustee or direct or indirect beneficial owner of Landlord or of any parent or other affiliate of Landlord shall have any personal liability with respect to any provision of this Lease, or any obligation or liability arising hereunder or in connection herewith and none of their assets (other than the Premises) shall be subject to levy, execution or other judicial process for the satisfaction of Tenant's claims. Tenant shall look solely to the equity of the then owner of the Premises or the proceeds of the sale of such equity or, subject to the rights of any mortgagee, to the rents from the operation of the Premises, for the satisfaction of any remedies of Tenant in the event of a breach by Landlord of any of its obligations hereunder. Such exculpation of liability shall be absolute and without any exception whatsoever.

Section 9.2 Damage; Theft.

(a) Tenant agrees to use and occupy the Premises; and that Landlord shall have no responsibility or liability for any loss of or damage to Tenant's leasehold improvements or to fixtures or other personal property of Tenant or those claiming by, through or under Tenant.

(b) Landlord and Landlord Parties shall not be liable for any property damage, personal injury or death, business interruption or loss of profits whatsoever (unless caused by Landlord's gross negligence or willful misconduct) including, without limitation, property damage, personal injury or death, business interruption or loss of profits occasioned by electricity, plumbing, gas, water, sprinkler or other pipes and sewage system or by the bursting, leaking, overflowing or running of any tank, washstand, closet or waste or other pipes in or about the Premises, or occasioned by water coming into the Premises from any source whatsoever, or arising from any latent defect in the Premises and/or any part thereof, or arising from acts or neglect of occupants of adjacent property, or the public. Landlord shall have no obligation to provide security to or for the Premises. It is understood and agreed that Landlord does not in any way warrant that Tenant, the Premises and Tenant's property therein shall be free from loss,

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damage or destruction through theft or vandalism, and Landlord assumes no liability whatsoever in the Premises. All property of Tenant kept or stored on the Premises shall be so kept or stored at the risk of Tenant only and Tenant shall hold Landlord harmless from any claims arising out of damage to the same, including subrogation claims by Tenant's insurance carriers.

Section 9.3 Indemnification by Tenant. Except as the same may be caused by Landlord's gross negligence or willful misconduct, Tenant hereby indemnifies and agrees to save harmless all Landlord Parties from and against any and all liens, claims, demands, actions, causes of action, obligations, penalties, charges, liabilities, damages, losses, costs or expenses, including reasonable attorneys' fees and costs of litigation, including fees and costs incurred in preparation for litigation, investigation and appeal (collectively, "Claims"), which (i) arise from or are in connection with the possession, use, occupation, management, repair, maintenance or control of the Premises by Tenant, or any portion thereof; (ii) arise from or are in connection with any act or omission of Tenant, or Tenant's agents, employees, licensees, tenants, subtenants, assignees, contractors and successors; (iii) arise from any breach by Tenant of this Lease; or (iv) result in injury to person or property or loss of life sustained in or about the Premises. Tenant shall defend any actions, suits and proceedings which may be brought against any Landlord Parties with respect to the foregoing or in which they may be impleaded. Tenant shall pay, satisfy and discharge any judgments, orders and decrees that may be recovered against Landlord Parties or any mortgagee in connection with the foregoing.

Section 9.4 Indemnification by Landlord. Landlord hereby indemnifies and agrees to save harmless all Tenant Parties, from and against any and all Claims which arise from or are in connection with any gross negligence or willful misconduct of Landlord, its agents, contractors, successors or employees. Landlord shall defend any actions, suits and proceedings which may be brought against any Tenant Parties with respect to the foregoing or in which they may be impleaded. Landlord shall pay, satisfy and discharge any judgments, orders and decrees which may be recovered against Tenant Parties in connection with the foregoing.

Section 9.5 No Consequential Damages. In no event shall Landlord be liable for consequential, indirect or any other similar damages irrespective of their nature or cause.

Section 9.6 General. The foregoing provisions of this Article 9 (as well as any other provisions dealing with indemnity and the like by Tenant or Landlord) shall be deemed to be modified in each case by the insertion in the appropriate place of the language: "except as otherwise provided by applicable law".

ARTICLE 10
INSURANCE

Section 10.1 Required Insurance. Tenant agrees to maintain in full force during the term hereof the following insurance coverages with respect to the Premises:

(a) Commercial General Liability Insurance relating to the Premises and its appurtenances on an occurrence basis (with a contractual liability endorsement as elsewhere herein required) with the following limits: a minimum single limit of at least $2,000,000 for injury (or death) to any person or more than one person and $2,000,000 with respect to damage

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to property; a minimum single limit of at least $2,000,000 for personal injury and advertising injury; a master control program limit of $8,000,000 (each policy); an aggregate limit of $4,000,000 for products and completed operations; and a general aggregate limit of $4,000,000 (other than products and completed operations); or such higher limits as Landlord may from time to time reasonably request.

(b) Fire and Lightning, Casualty, Extended Coverage, Vandalism and Malicious Mischief and Flood (if flood insurance is required by Landlord, or any mortgagee or governmental authority and if obtainable) Insurance in amounts adequate to cover the full replacement cost (with no deductibles) of all of Tenant's leasehold improvements, personal property, trade fixtures, furnishings, equipment and all contents therein.

(c) Worker's Compensation Insurance covering all persons employed, directly or indirectly, in connection with Tenant's operations, as well as in connection with any of Tenant's Work or any Tenant repair or alteration authorized by this Lease or consented to by Landlord, and all employees and agents of Tenant with respect to whom death or injury claims could otherwise be asserted against Landlord or Tenant, in at least the minimum amount required by applicable law.

(d) Commercial Automobile Liability Insurance covering owned, non-owned and hired automobiles with a combined single limit per accident (without annual aggregate) of $1,000,000 for bodily injury and property damage; $5,000 for medical payments; and 1,000,000 for uninsured/underinsured motorists.

(e) Such other insurance as may be required by Landlord from time to time.

Section 10.2 Terms of Insurance Policies.

(a) All of the aforesaid insurance shall be written in the name of Tenant and shall name Landlord (and any designee(s) of Landlord) as additional insured and loss payee and shall be written by one or more responsible insurance companies satisfactory to Landlord and duly licensed to do business in Puerto Rico with a full-capitalized guaranty fund covering those individuals and entities that it insures that reside, are situated or do business in the Commonwealth of Puerto Rico under which Landlord and Landlord Parties and Tenant are named primary insured, and under which the insurer agrees to indemnify and hold Landlord and Landlord Parties harmless from and against all cost, expense and/or liability arising out of or based upon any and all claims, accidents, injuries, and damages mentioned in Section 11.2 of this Lease.

(b) All such insurance may be carried under a blanket policy covering the Premises and other locations of Tenant; provided that the proceeds from such blanket policy shall be an amount no less than the amount of the proceeds that would be available if Tenant obtained the required insurance under policies separately insuring the risks which this Lease requires Tenant to insure.

(c) All such insurance shall contain endorsements providing that such insurance may not be canceled or amended with respect to Landlord or Landlord Parties except upon thirty (30) days' prior written notice to Landlord by the insurance company.

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(d) Tenant shall be solely responsible for payment of all premiums and Landlord shall not be required to pay any premium for such insurance. In the event of payment of any loss covered by any such policy, Landlord (or its designees) shall be paid first by the insurance company for Landlord's loss. The minimum limits of the comprehensive general liability policy of insurance required of Tenant hereunder shall in no way limit or diminish Tenant's liability hereunder.

(e) Tenant shall deliver to Landlord on or before the Commencement Date and thereafter at least thirty (30) days prior to the expiration of each such policy, either a duplicate original or a certificate of insurance for all policies procured by Tenant in compliance with its obligations hereunder, together with evidence satisfactory to Landlord of the payment of the premiums therefor. If Tenant fails to obtain and provide any or all of the aforesaid insurance, then, in addition to its other remedies, Landlord may, but shall not be required to, purchase such insurance on behalf of Tenant and add the cost of such insurance, as Additional Rent, to the next installment of Minimum Rent.

(f) The minimum limits of the comprehensive general liability and workmen's compensation policies of insurance shall be subject to increase at any time, and from time to time, if Landlord shall deem same necessary for adequate protection. Within thirty (30) days after demand therefor by Landlord, Tenant shall furnish Landlord with evidence of Tenant's compliance with such demand.

Section 10.3 Fire Insurance Rate. If, at any time and from time to time, as a result of or in connection with any act of omission or commission by Tenant, its employees, agents, contractors or licensees, or as a result of or in connection with the use to which the Premises are put (notwithstanding that such use may be for the purposes hereinbefore permitted or that such use may have been consented to by Landlord), the insurance rate(s) applicable to the Premises or to any adjacent property owned or controlled by Landlord, or an affiliate of Landlord, and/or to the contents in any or all of the aforesaid properties (including, but not limited to, rent insurance relating thereto) shall be higher than that which would be applicable for the least hazardous type of occupancy legally permitted therein, Tenant agrees that it will pay to Landlord, on demand, 100% of such portion of the premiums for all Landlord's insurance policies in force with respect to the aforesaid properties (including, but not limited to, rent insurance relating thereto) and their contents as shall be attributable to such higher rate(s). For purposes of this Section, any finding or schedule of the fire insurance rating organization having jurisdiction thereof shall be deemed to be conclusive.

Section 10.4 Waiver of Subrogation. Neither Landlord nor any Landlord Parties shall be liable for any damage by fire or other peril includable in the coverage afforded by the standard form of fire insurance policy with extended coverage endorsement attached, no matter how caused, it being understood that the damaged party will look solely to its insurer for reimbursement, provided that this waiver of liability shall apply only to the extent that the party incurring such loss is actually reimbursed for such loss by the proceeds of insurance (or, in the case of a party which fails to carry insurance required in this Lease, only to the extent that such failing party would have been so reimbursed had such failing party complied with its insurance requirements hereunder). Tenant's policies of insurance shall contain a waiver of subrogation confirming the foregoing. Any waiver of rights required by this Section shall be ineffective if

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such waiver shall be unobtainable, or result in a breach of the insurance contract or in material increase in the cost of insurance of the waiving party, unless the other party shall pay such increase within ten (10) days after notice thereof.

ARTICLE 11
DAMAGE TO PREMISES

Section 11.1 Notice. Tenant shall notify Landlord in writing of any damage or destruction resulting from fire or other casualty to the Premises promptly after learning of the same.

Section 11.2 Damage or Destruction. If all or any part of the Premises shall be damaged or destroyed by fire or other casualty insured under the standard fire insurance policy with approved standard extended coverage endorsement applicable to the Premises, Landlord shall, except as otherwise provided herein, repair and/or rebuild the same with reasonable diligence, to their condition as of the Commencement Date, reasonable wear and tear excepted. Nothing hereinabove contained shall impose upon Landlord any liability or responsibility to repair, rebuild or replace any property belonging to or provided by Tenant. Even if the Premises shall become completely untenantable as a result of such damage or destruction, the Minimum Rent and other sums payable hereunder shall not abate (it being intended that Tenant assume or obtain rent and/or business interruption insurance to cover such risk). Unless this Lease is terminated by Landlord as hereinafter provided, upon completion of Landlord's repairs and rebuilding, Tenant shall promptly repair the Premises to at least a condition equal to that existing prior to its destruction or casualty, and the proceeds of all insurance carried by Tenant on its leasehold improvements in the Premises shall be paid to and held in trust by Landlord and disbursed by Landlord to Tenant for such purpose.

Section 11.3 Termination of Lease.

(a) Notwithstanding anything else to the contrary in this Section or elsewhere in this Lease, Landlord, at its sole option, may terminate this Lease on thirty (30) days written notice to Tenant given at any time after the occurrence of any of the following:

(i) The Premises shall be damaged or destroyed as a result of an occurrence which is not completely covered by Landlord's insurance, or sufficient net insurance proceeds are not made available to Landlord to meet the cost of replacement; or

(ii) The Premises are damaged to such an extent that, in the sole judgment of Landlord, the Premises cannot be operated as an economically viable unit.

(b) If more than seventy-five percent (75%) of the Premises shall be damaged or destroyed by fire, windstorm, or otherwise within the last six (6) months of the Term, either party shall have the right to terminate this Lease, provided that notice thereof is given to the other party no later than thirty (30) days after such damage or destruction. If said right of termination is exercised this Lease and the term hereof shall cease and come to an end as of the date of said damage or destruction.

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Section 11.4 No Abatement. Except to the extent specifically provided for in this Lease, unless this Lease is terminated as herein provided, none of the Minimum Rent and other sums payable by Tenant, nor any of Tenant's other obligations under any provisions of this Lease, shall be affected by any damage to or destruction of the Premises by any cause whatsoever and Tenant hereby specifically waives all other rights it might otherwise have at law and in equity which are inconsistent herewith.

Section 11.5 Rights of Mortgagee. Notwithstanding any foregoing provisions to the contrary, the provisions of this Article 11 shall be subject to the terms and conditions of any Mortgage and any requirements of the holder of such Mortgage.

Section 11.6 Express Agreement. This Article shall be considered an express agreement governing any case of damage to the Premises and, to the extent permitted by law, any statute purporting to govern in such cases, now or hereafter in force, shall have no application under this Lease.

ARTICLE 12
CONDEMNATION

Section 12.1 Total Condemnation. If the entire Premises is Condemned or taken in Condemnation, this Lease shall terminate and expire on and as of the date title is conveyed under such Condemnation.

Section 12.2 Partial Condemnation.

(a) If more than fifteen percent (15%) of the usable area of the Premises shall be Condemned, Landlord may elect to terminate this Lease by notice to Tenant within thirty (30) days after the effective date of such Condemnation; and this Lease shall terminate and expire on the date specified in Landlord's notice (which shall be at least sixty (60) days after the date of such notice).

(b) Subject to Section 12.2(a), if part (but not all) of the Premises is Condemned, this Lease shall terminate and expire with respect only to the portion of the Premises so Condemned, on and as of the effective date of such Condemnation. In all other respects this Lease shall remain in full force and effect except that Tenant shall be entitled, after such date, to a reduction in Rents in the proportion which the area of the Premises so Condemned bears to the total area of the Premises at the time of such taking.

(c) Notwithstanding Section 12.2(b), if more than seventy-five percent (75%) of the Premises is Condemned, or if there is a Condemnation of all of Tenant's access to the Premises, Tenant may elect to terminate this Lease by notice to Landlord given within thirty, (30) days after Tenant receives notice from Landlord or otherwise of the effective date of such Condemnation; and this Lease shall terminate sixty (60) days after the giving of Tenant's notice.

Section 12.3 Award. In the event of any Condemnation of the Premises, whether or not this Lease survives, Landlord shall be entitled to receive the entire award and compensation, without deduction for any estate vested in Tenant by this Lease (or any value attributable thereto). Tenant hereby assigns to Landlord any and all right, title and interest which the Tenant

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may have in or to any such award and compensation (other than Tenant's claim for statutory moving expenses, if any); and Tenant agrees to execute and file any and all applications, statements, documents, and instruments necessary or desirable to facilitate Landlord's collection of any such award and compensation.

Section 12.4 Temporary Taking. If the use of the Premises is Condemned for a period of one (1) year or less, Tenant's obligations under this Lease shall not change; and Tenant shall continue to pay all Rents without reduction or abatement. However, Tenant shall be entitled to the portion of the award or compensation for such temporary Condemnation (after subtraction of all necessary and proper expenses of collection incurred by Landlord) equal to the Rents payable hereunder during the period covered, together with such additional reasonable and actual expenses as Tenant incurs in connection with relocation to alternate space for the period of such temporary Condemnation. The balance of the award and compensation shall be payable to Landlord.

ARTICLE 13
ASSIGNMENT AND SUBLETTING

Section 13.1 No Assignments, Subleases.

(a) Except as otherwise expressly provided in this Article, Tenant shall not, without obtaining the prior written consent of Landlord (which consent may be withheld at Landlord's sole discretion), in each instance: (i) assign or otherwise transfer this Lease, or any part of Tenant's right, title or interest therein; (ii) sublet all or any part of the Premises or allow all or any part of the Premises to be used or occupied by any other Persons; (iii) mortgage, pledge, collaterally assign or otherwise encumber this Lease or the Premises.

(b) For purposes of this Article, an assignment, hypothecation, pledge and/or other transfer or encumbrance of (i) twenty-five percent (25%) or more of the issued and outstanding capital stock of any corporate Tenant (or any corporate general partner of Tenant), or (ii) twenty-five percent (25%) or more of the total interest in any other entity (partnership or otherwise) which is Tenant, however accomplished, whether in a single transaction or in a series of related or unrelated transactions, shall be deemed an assignment, hypothecation, pledge and/or transfer of this Lease. This provision shall not apply whenever Tenant is a corporation, the outstanding voting stock of which is listed on a recognized security exchange, or if at least eighty percent (80%) of its voting stock is owned by another corporation the voting stock of which is so listed.

Section 13.2 Exceptions.

(a) Section 13.1 shall not apply to transactions entered into by Tenant with an entity into (or with) which Tenant is merged or consolidated or to which substantially all of Tenant's assets are transferred, provided that (i) such merger, consolidation, or transfer of assets is for a good business purpose and not a device for the transfer of Tenant is interest in this Lease; and (ii) the assignee or successor entity has a net worth at least equal to or in excess of the net worth of Tenant immediately prior to such merger, consolidation, or transfer, or as of the date of

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this Lease, whichever is greater, as evidenced by financial statements prepared and certified by independent certified public accountants.

(b) Tenant shall have the right to assign this Lease to an entity organized or formed under the laws of a state or commonwealth of the United States all of the shares or interests in of which are owned by Tenant; provided, however, that (i) Tenant shall simultaneously execute and deliver to Landlord a guarantee in the form approved by Landlord, (ii) the net worth of the assignee shall be not less than the net worth of the Tenant on the date hereof or on the date of the transfer (whichever is higher), and (c) provided, further, that any pledge, transfer, sale, or other disposition of the shares or interests of such entity shall be deemed an assignment of this Lease.

Section 13.3 Recapture Rights. If at any time or from time to time during the term of this Lease, Tenant desires to assign this Lease or to sublet all or any part of the Premises, then not less than thirty (30) days, nor more than sixty (60) days, prior to the date (the "Transfer Date") on which Tenant desires the assignment or sublease to become effective Tenant shall give Landlord written notice (the "Transfer Notice") which shall set forth (i) the name, address and business of the proposed assignee or sublessee, (ii) information (including, without limitation, all relevant financial statements and references) concerning the character, financial condition and business experience of the proposed assignee or sublessee, (iii) a detailed description of the portion of the Premises proposed to be sublet, which Tenant covenants and agrees with Landlord shall be a single, self-contained unit, (iv) any rights of the proposed assignee or sublessee to use Tenant's improvements, (v) the Transfer Date, and (vi) the Minimum Rent, Additional Rent and/or other consideration and all other material and relevant terms and conditions of the proposed assignment or sublease, all in such detail as Landlord may reasonably require. If Landlord requests additional detail, the Transfer Notice shall not be deemed to have been received until Landlord receives such additional detail. Landlord shall have the option, notwithstanding anything to the contrary contained in this Article 13, exercisable by giving notice to Tenant at any time within sixty (60) days after Landlord's receipt of the Transfer Notice (a) in the case of an assignment, to terminate this Lease or in the case of a sublease, to terminate this Lease as a portion of the Premises proposed to be sublet, in which event Tenant shall be relieved of all further obligations hereunder with respect thereto as of the Transfer Date; or (b) in the case of a sublease, to sublease such portion from Tenant upon the terms and conditions set forth in the Transfer Notice, except that the rent shall be the lower of the per square foot monthly Minimum Rent and Additional Rent payable by Tenant under the Lease for the Premises or the rent and other consideration set forth in the Transfer Notice which is applicable to the portion of the Lease Premises which Tenant proposes to sublet. No failure of Landlord to exercise either option with respect to the applicable portion of the Premises shall be deemed to be a consent by Landlord to the assignment or subletting of all or any portion of the Premises. If, after receipt of any Transfer Notice, Landlord exercises it right to terminate this Lease with respect to, or enter into a sublease for, the applicable portion of the Premises, Tenant shall have the right, exercisable by written notice to Landlord sent within ten (10) days after its receipt of Landlord's said notice, to rescind the applicable Transfer Notice. If Landlord exercises its option to sublease and Tenant shall not rescind the applicable Transfer Notice, all as provided herein, Tenant shall sublease to Landlord the applicable portion of the Premises upon the terms and conditions contained in the Transfer Notice (except for monthly rental as specified above) provided, however, that: (A) Landlord shall at all times under such sublease have the right and

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option further to sublease the applicable portion of the Premises without obtaining Tenant's consent or sharing any of the economic consideration received by Landlord; (B) Tenant shall have no right of setoff or abatement or any other right to assert a default hereunder by reason of any default by Landlord under such sublease; and (C) Landlord's liability under such sublease shall not be deemed assumed or taken subject to by any successor to Landlord's interest under the Lease.

Section 13.4 Conditions to Assignment/Sublease. Any assignment, whether made with Landlord's consent as required by Section 13.1 or without Landlord's consent pursuant to Section 13.2, shall not be effective, and shall be null and void as against Landlord, unless and until:

(a) the assignee shall execute, acknowledge and deliver to Landlord an agreement, in form and substance reasonably satisfactory to Landlord, under which (A) the assignee assumes the obligations and performance of this Lease and agrees to be bound personally by all of the covenants, agreements, terms, provisions and conditions hereby on the part of Tenant to be performed or observed on and after the effective date of any such assignment; and (B) the assignor agrees that the provisions of this Article shall continue binding upon it in the future, notwithstanding the assignment or other transfer;

(b) any sublessee shall have entered into an instrument in writing in favor of Landlord, which instrument shall be in form and substance reasonably satisfactory to Landlord and shall have been received by Landlord, pursuant to which such sublessee shall agree directly with landlord to comply with and be bound by all of the applicable terms and conditions set forth in this Lease;

(c) in the case of an assignment pursuant to Section 13.2, Tenant or its successor shall have delivered to Landlord financial statements certified by certified public accountants evidencing satisfaction of the net worth requirement in Section 13.2;

(d) in the case of an assignment or sublease made with Landlord's consent, the assignment or sublease shall be on the same terms, and only to the party, set forth in the Transfer Notice given to Landlord pursuant to the provisions of Section 13.3;

(e) no assignee or sublessee shall have a right further to Transfer, except under the conditions set forth herein; and

(f) Tenant shall pay Landlord's attorneys' fees and costs incurred in connection with such Transfer.

Section 13.5 General Provisions.

(a) Tenant covenants that, notwithstanding any assignment or transfer, whether or not in violation of the provisions of this Lease, and notwithstanding the acceptance of Rents by Landlord from an assignee, transferee, or any other person, Tenant for the Term shall remain fully and primarily and jointly and severally liable for the payment of all Rents due and to become due under this Lease and for the performance and observance of all of the covenants, agreements, terms, provisions and conditions of this Lease on the part of Tenant to be performed or observed. After any assignment, subletting, or other transfer permitted under this Article 13,

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Tenant's liabilities and obligations under this Lease shall not be discharged, released or impaired in any respect by an agreement or stipulation made by Landlord (or the holder of any Mortgage) extending the Term, or modifying any obligations contained in this Lease, or by any waiver or failure of Landlord to enforce any of Tenant's obligations under this Lease, and Tenant shall continue liable hereunder.

(b) Any attempted assignment, subletting, or other transfer in violation of this Article 13 shall not be binding upon Landlord and shall confer no rights upon any third person

(c) Tenant shall not have any right to make any claim for money damages or to offset any claim for money damages against any sums due under this Lease based upon allegations that Landlord has unreasonably withheld or unreasonably delayed its consent even if Landlord shall have agreed that such consent will not be withheld or delayed unreasonably. Tenant's sole remedy on account thereof shall be to seek equitable relief or a declaratory judgment.

(d) If Landlord consents to any assignment or sublease, Tenant shall pay Landlord, as Additional Rent (a) in the case of each and every assignment, an amount equal to fifty percent (50%) of all sums and other considerations paid Tenant by the assignee for (or by reason of) such assignment (including sums in excess of fair market value paid for the sale of Tenant's fixtures, leasehold improvements, equipment, furniture, furnishings or other personal property); and (b) in the case of each and every sublease, all rents, additional charges or other consideration whatsoever payable to Tenant by the subtenant which exceed all Rents under this Lease accruing during the term of the sublease in respect of the subleased space (i.e., allocated in proportion to the space demised, as reasonably computed by Landlord) pursuant to the terms hereof (including, but not limited to, sums paid for the sale or rental of Tenant's fixtures, leasehold improvements, equipment, furniture or furnishings or other personal property). Tenant shall pay Landlord all amounts due under this Section 13.5(d) as and when payable by the assignee or subtenant to Tenant.

ARTICLE 14
DEFAULTS; REMEDIES

Section 14.1 Defaults. Each of the following events shall be a "Default" under this Lease:

(a) Tenant fails to pay when due Rent or any other charges due under this Lease and such failure is not cured within five (5) days following Landlord's written notice of such failure;

(b) Tenant sublets the Premises (or any part thereof) or mortgages, pledges, assigns, transfers, or otherwise disposes of this Lease (or any part of Tenant's right, title, and interest hereunder) without complying with all requirements of this Lease;

(c) A levy under execution or attachment is made against Tenant or Tenant's property and is not vacated or removed by court order, bonding or otherwise within thirty (30) days thereafter;

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(d) Any event specified in the first paragraph of Section 14.2 hereof occurs (no notice of such occurrence or opportunity to cure being required); and/or

(e) Tenant fails to observe and perform any of the other terms, covenants and/or conditions of this Lease and such failure shall continue for more than fifteen (15) days after written notice from Landlord to Tenant (unless such failure reasonably requires more than fifteen (15) days to cure, in which case Tenant shall not be deemed in default hereunder if, within such fifteen (15)-day period, Tenant commences to cure such failure and thereafter Tenant prosecutes such cure diligently and without interruption to completion);

(f) Tenant (or any affiliated or related entity of Tenant) defaults under any lease, other than this Lease, between Landlord (or any affiliated or related entity of Landlord or its managing agent) and Tenant (or any affiliated or related entity of Tenant).

If, in the course of any two (2)-year period, an event of default shall occur requiring notice hereunder on more than three (3) occasions, even if such events are each cured within any applicable grace and/or notice period, Tenant shall, at Landlord's option, also be deemed in immediate default upon the occurrence of such third event of default without any further notice or opportunity to cure being required to be given.

Section 14.2 Bankruptcy.

(a) If at any time during the Term there shall be filed, by or against Tenant or any successor tenant then in possession or any guarantor of either under this Lease, in any court pursuant to any statute either of the United States or of any State or Commonwealth, a petition (i) in bankruptcy, (ii) alleging insolvency, (iii) for reorganization, (iv) for the appointment of a receiver, (v) for an arrangement under any federal or State or Commonwealth bankruptcy code, or (vi) for any similar creditor's or debtor's rights, Tenant shall be in immediate default hereunder without the necessity of any notice or cure period being given (except in the event of an involuntary filing against Tenant, no default shall occur unless such filing is not dismissed within 30 days of such filing), and thereupon Tenant shall immediately quit and surrender the Premises to Landlord, but Tenant shall continue to be liable for the payment of Rent and all other sums due hereunder.

(b) In the event Landlord may not terminate Tenant's rights under this Section 14.2 by reason of protection afforded Tenant under the applicable bankruptcy act, and Tenant is in default of any of the other terms, covenants or conditions of this Lease, then the duly-appointed trustee in bankruptcy of the Tenant-debtor (the "Trustee") may assume this Lease only after he undertakes the following:

(i) cures any default, or provides adequate assurance that he will promptly cure such default;

(ii) compensates or provides adequate assurance that he will promptly compensate Landlord for any actual pecuniary loss resulting from such default; and

(iii) provides adequate assurance of future performance.

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(c) Adequate assurance of future performance includes, but is not limited to, adequate assurance: (1) of the source of Rent and other considerations due under the Lease; and (2) that assumption or assignment of the Lease will not breach any provisions in any other lease, financing agreement or master agreement relating to the Premises.

(d) To assign the Lease, the Trustee must first assume the Lease in accordance with the bankruptcy code and provide adequate assurance of future performance by the assignee, and must not be in default of any of the other terms hereunder.

Section 14.3 Landlord's Rights on Default. In addition to any other remedies or rights of Landlord in this Lease or by law or equity provided, in the event of any default by Tenant (beyond any applicable grace, notice and/or cure period specifically granted herein, if any), Landlord may:

(a) terminate this Lease (which shall only occur if Landlord so specifies a termination in writing; and no such termination shall, under any circumstances, absolve or discharge Tenant from any of its obligations or liabilities for the then remainder of the Term or otherwise); and/or

(b) bring suit for the collection of Rent and other sums due under this Lease and for damages (including, without limitation, attorneys' fees and the cost of repairing and reletting the Premises), with or without entering into possession of the Premises or terminating the Lease. Commencement of any such action by Landlord shall not be construed as an election to terminate this Lease and shall not absolve or discharge Tenant from any of its obligations or liabilities for the remainder of the Term; and/or

(c) re-enter and retake possession of the Premises from Tenant by summary proceedings or otherwise. To the extent permitted by Law, Tenant waives notice of termination of this Lease, any statutory notice (3-day or otherwise), notice of re-entry or repossession or institution of legal proceedings and any right of redemption or repossession. In the event of any re-entry (whether by reason of termination as specified in Section 11.3(a) or otherwise), Landlord shall have the right, but not the obligation, to remove any persons and property from the Premises and place all such property in storage at a public warehouse or on any sidewalk at the sole expense and risk of Tenant or any other owner thereof.

Notice of re-entry, or the commencement of any action by Landlord for re-entry, or any such actual re-entry, shall not be construed as an election to terminate this Lease. Neither termination nor re-entry shall absolve or discharge Tenant from any of its obligations or liabilities for the remainder of the Term or otherwise.

Section 14.4 Damages Upon Default or Termination. If Landlord elects to exercise any of its remedies for Tenant's default under the provisions of the above Section, whether or not Landlord elects to terminate this Lease or re-enter the Premises, Landlord may recover from Tenant damages computed in accordance with the following formula, in addition to its other remedies:

(a) any unpaid Rent and other sums due under this Lease which have accrued at the time of such exercise; plus

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(b) the unpaid Rent and other sums due under this Lease for the then balance of the Term after the time of such exercise (as if, for this purpose, no default had occurred and no remedy had been exercised), payable at the election of Landlord, on a monthly basis or in a lump sum, discounted to then present value at a 6% discount rate (in which case, if the Premises are re-leased to one or more new tenants, Landlord shall credit Tenant for, or, if Tenant has already made the aforesaid lump sum payment, pay Tenant, all net rental amounts actually realized by Landlord on account of such re-letting, in a maximum aggregate amount equal to the amount Tenant owes, or had theretofore actually paid to Landlord in a lump sum, as damages under this subparagraph (b) for the applicable period for which such net re-letting payments were actually received by Landlord); plus

(c) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, including, without limitation, the cost of repairing, modifying or modernizing the Premises, new tenant allowances, brokerage fees, free rent and attorneys' fees and costs; plus

(d) at Landlord's election, such other amounts in addition to (or in lieu of the foregoing) as may be permitted from time to time by the laws of the State or Commonwealth; plus

(e) Interest on all of the foregoing from the date due until paid in full.

It is specifically understood and agreed that Landlord shall be entitled to take into account in connection with any reletting of the Premises all relevant factors which would be taken into account by a sophisticated developer in securing a replacement tenant for the Premises and Tenant hereby waives, to the extent permitted by applicable law, any obligation Landlord may have to mitigate Landlord's damages. To induce Landlord to enter into this Lease, (i) Tenant confirms and agrees that this transaction is a commercial and not a consumer transaction, (ii) Tenant hereby waives any right to trial by jury in any action, proceeding or counterclaim brought by Landlord against Tenant on any matter whatsoever arising out of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant's use and occupancy of the Premises and/or any claim of injury or damage, and (iii) Tenant agrees not to interpose any counterclaim of whatever nature or description in any proceeding commenced by Landlord for nonpayment of Rent, Minimum Rent or any other amount due hereunder, provided the forgoing shall not be construed as a waiver of the right of Tenant to assert such claims in any separate action brought by Tenant.

Section 14.5 Landlord's Self-Help. In addition to Landlord's other remedies (including, but not limited to, Landlord's rights of self-help set forth elsewhere in this Lease), if Tenant at any time fails to perform any of its obligations under this Lease, Landlord shall have the right, but not the obligation, upon giving Tenant at least two (2) days' prior written notice of its election to do so (in the event of any emergency, however, no prior notice being required), to perform such obligations on behalf of and for the account of Tenant and to take all such action necessary to perform such obligations. In such event, Landlord's costs and expenses incurred therein, plus a 18% administrative charge, shall be paid for by Tenant forthwith, with interest.

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The performance by Landlord of any such obligation shall not constitute a release of Tenant or waiver of Landlord.

Section 14.6 Specific Performance; Injunction. Landlord shall have the right to obtain a judgment of specific performance, an injunction and/or restraining order and shall have all other equitable remedies available under applicable law in the event of Tenant's default.

Section 14.7 Landlord's Remedies Cumulative. All remedies of Landlord hereunder are cumulative and not mutually exclusive and may be exercised in addition to all other remedies available to Landlord at law and in equity.

Section 14.8 Non-Waiver Provisions. The failure of Landlord to insist upon a strict performance of any of the terms, conditions and covenants herein shall not be deemed to be a waiver of any rights or remedies that Landlord may have and shall not be deemed a waiver of any subsequent breach or default in the terms, conditions and covenants herein contained, except only as may be expressly waived in writing.

ARTICLE 15
CONVENANT OF QUIET ENJOYMENT

Landlord covenants, represents and warrants that it has full right and power to execute and perform this Lease and that Tenant, on payment of the Rent and performance of the covenants and agreements hereof, shall peaceably and quietly have, hold and enjoy the Premises and all rights, easements, appurtenances and privileges granted to Tenant herein during the Term without molestation or hindrance of Landlord, any person or entity lawfully claiming by, through or under Landlord subject to the terms and conditions of this Lease.

ARTICLE 16
CONDITION OF PREMISES AT TERMINATION

At the expiration or sooner termination of the Term, Tenant shall surrender the Premises in the same condition of cleanliness, repair and operation as the Premises were in upon the Commencement Date, reasonable wear and tear and damage by unavoidable casualty excepted. Tenant shall surrender all keys for the Premises to Landlord and shall inform Landlord of all combinations on locks, safes and vaults, if any, in the Premises. On or before the last day of the Term or the sooner termination thereof, Tenant shall remove all trade fixtures, signs and other personal property installed or placed by Tenant in the Premises and repair any damage occasioned by any such removal. Upon the written request of Landlord given at any time prior to the last day of the Term, Tenant shall also remove any Alterations made to or in the Premises. Property not so removed shall be deemed abandoned by Tenant and Landlord, at its sole option, may remove and store such property in a public warehouse or elsewhere at the cost of and for the account of Tenant, all without service of notice or resort to legal process and without being deemed guilty of trespass or becoming liable for any loss or damage which may be occasioned thereby.

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ARTICLE 17
HOLDING OVER

Section 17.1 Holding Over. If Tenant otherwise holds the Premises after the expiration or earlier termination of the Term hereof without the written consent of Landlord, to be given or withheld in Landlord's sole discretion, such holding over shall be deemed to have created a tenancy at sufferance only, at a monthly rental equal to one hundred fifty percent (150%) of the Minimum Rent payable by Tenant to Landlord during the calendar month immediately preceding such expiration or termination of the Term, and otherwise subject to all terms of this Lease, and all other charges payable by Tenant hereunder. Neither any provision contained in this Section nor Landlord's acceptance of Rent after the expiration or earlier termination shall be construed as consent to such holding over.

Section 17.2 Indemnity. If Tenant fails to surrender the Premises upon the expiration or termination of the Lease Term, Tenant shall indemnify and hold harmless Landlord from all claims, losses, brokerage commissions, lost rents, liabilities and expenses, including reasonable attorneys' fees and costs of litigation and investigation, resulting from such failure, including without limitation any claims made by any successor tenant arising out of such failure, and interest on all such sums.

ARTICLE 18
HAZARDOUS MATERIALS

Section 18.1 Covenants and Indemnity. (a) Tenant shall not generate, use, handle, store or dispose of any Hazardous Material on, in or about the Premises. Notwithstanding the foregoing, to the extent any Hazardous Materials are substances which are ordinarily used in the course of the Tenant's business as permitted pursuant to Section 5.1 of this Lease, Tenant may use and/or store such Hazardous Materials on the Premises; provided that (a) Tenant stores such substances on the Premises in limited quantities and in strict compliance with any applicable Laws, (b) Tenant uses such materials only for their intended purposes and in the manner prescribed by the manufacturers and applicable Laws, (c) such substances shall not be disposed of on, in or about the Premises, and (d) such substances shall be handled, transported and disposed of in accordance with applicable Laws.

(b) Tenant hereby indemnities and holds Landlord harmless from and against any and all Claims (including, without limitation, the expenses of testing, cleaning up and reporting, and engineering and attorneys' fees) that Landlord may sustain or have asserted against it by reason of or in connection with (i) the bringing or discharge of any Hazardous Materials in, on, under, about or from the Premises by Tenant, its subtenants or their respective agents, employees, contractors, subcontractors, subtenants or licensees, (ii) the transportation or disposal of any Hazardous Materials to or from the Premises by Tenant, its sub-tenants or their respective agents, employees, contractors, sub-contractors, subtenants or licensees, (iii) any actual or alleged failure by Tenant, its subtenants or their respective agents, employees, contractors, subcontractors, subtenants or licensees to comply with any Environmental Law, or (iv) any breach by Tenant, its subtenants or their respective agents, employees, contractors, subcontractors, subtenants or licensees of any obligations that are set forth in, or are required to be imposed by, this Section 18.1.

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Section 18.2 Defined Terms. "Hazardous Materials" means any substance which during the Term is defined, designated or classified as hazardous, toxic, radioactive or dangerous, or otherwise regulated under any Environmental Law, whether by type or by quantity, including any substance containing any such substance as a component. Hazardous Materials includes, without limitation, any toxic waste, pollutant, contaminant, hazardous substance, toxic substance, hazardous waste, special waste, industrial hazardous or toxic substance or petroleum or any derivative or by-product thereof, radon, radioactive material, asbestos, asbestos containing material, urea formaldehyde foam insulation, lead and polychlorinated biphenyl, and any and all of the following, including mixtures thereof: any hazardous substance, pollutant, contaminant, waste, by-product or constituent regulated under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq.; oil and petroleum products and natural gas, natural gas liquids, liquefied natural gas and synthetic gas usable for fuel; pesticides regulated under the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. Section 136 et seq.; asbestos and asbestos-containing materials, PCBs and other substances regulated under the federal Solid Waste Disposal Act and the federal Toxic Substances Control Act, 15 U.S.C. Section 2601 et seq.; source material, special nuclear material, by-product material and any other radioactive materials or radioactive wastes, however produced, regulated under the Atomic Energy Act or the Nuclear Waste Policy Act of 1982; chemicals subject to the OSHA Hazard Communication Standard, 29 C.F.R. "1910.1200 et seq.; and industrial process and pollution control wastes, whether or not hazardous within the meaning of the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. "Environmental Law" means the following: (i) any federal, state or local Law (including, without limitation, the Commonwealth of Puerto Rico), statute, ordinance, rule, regulation, guideline, code, license, permit, authorization, approval, consent, legal doctrine, order, judgment, decree, injunction, requirement or agreement with any governmental entity, relating to (x) the protection, preservation or restoration of the environment (including, without limitation, air, water, vapor, surface water, groundwater, drinking water supply, surface land, subsurface land, plant and animal life or any other natural resource), or to human health or safety, or (y) the exposure to, or the use, storage, recycling, treatment, generation, transportation, processing, handling, labeling, production, release or disposal of Hazardous Materials and (ii) any common law or equitable doctrine (including, without limitation, injunctive relief and tort doctrines such as negligence, nuisance, trespass and strict liability) that may impose liability or obligations for injuries or damages due to, or threatened as a result of, the presence of or exposure to any Hazardous Materials.

Section 18.3 Survival. The provisions of this Article 18 shall survive the termination of this Lease.

ARTICLE 19
ESTOPPEL

At Landlord's request from time to time, Tenant shall, within ten (10) Business Days of such request, execute, acknowledge and deliver to Landlord a written statement (each such statement, an "Estoppel Certificate") certifying as of the date thereof, except as specifically disclosed in such Estoppel Certificate: (a) attached to the Estoppel Certificate is a true, correct and complete copy of this Lease, including any and all amendments and modifications thereto; (b) there are no agreements other than this Lease (and, except as attached thereto, no

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amendments, modifications, extensions, or other revisions of this Lease) in effect between Tenant and Landlord (or any other Person) with respect to the Premises; (c) this Lease is valid and in full force and effect and Tenant has no setoffs, claims or defenses of any kind whatsoever to enforcement of this Lease; (d) to the best of Tenant's knowledge, Tenant has no claim, demand, cause of action or right to institute any legal proceeding against Landlord arising out of or by virtue of this Lease or by reason of Tenant's occupancy and use of the Premises; and (e) Landlord is not in default in the performance of any of Landlord's obligations under this Lease; and Tenant has not given any notice of default to Landlord. In each Estoppel Certificate Tenant shall certify, also, the amount of Rent then payable under this Lease, the amounts (and elements) of Additional Rent then payable, and the dates to which Tenant has paid the same, and such other matters as Landlord or the holder of any Mortgage may reasonably request. Tenant acknowledges and agrees that a prospective purchaser or mortgagee of Landlord's interest in this Lease or the Premises, or the holder of any Mortgage (or the assignee of any such Person), may rely upon each Estoppel Certificate.

ARTICLE 20
SUBORDINATION

Section 20.1 Subordination. It is agreed that the rights and interest of Tenant under this lease shall be subject and subordinate to any Mortgages that may hereafter be placed upon the Premises, and to any and all advances to be made thereunder, and to the interest thereon, and all renewals, modifications, replacements and extensions thereof. It is further agreed that any mortgagee may elect, by written notice to Tenant, to give the rights and interest of Tenant under this Lease priority over the lien of its Mortgage. Tenant shall execute and deliver whatever instruments may be required for such purposes forthwith upon demand, and in the event Tenant fails so to do within ten (10) days after demand in writing, without limiting Landlord's other rights on account of such failure, Tenant does hereby make, constitute and irrevocably appoint Landlord as its attorney in fact and in its name, place and stead so to do.

Section 20.2 Rights of Mortgagee. In the event of any act or omission by Landlord which would give Tenant the right to terminate this Lease or to claim a partial or total eviction, Tenant shall not exercise any such right (i) until it shall have given written notice, by registered or certified mail, of such act or omission to the holder of any Mortgage whose name and address shall have been furnished to Tenant in writing, at the last address so furnished, and (ii) until a reasonable period of time for remedying such act or omission shall have elapsed following the giving of such notice, provided that following the giving of such notice, Landlord or said holder shall, with reasonable diligence, have commenced and continued to remedy such act or omission or to cause the same to be remedied.

Section 20.3 Assignment of Rents. With reference to any assignment by Landlord of Landlord's interest in this Lease, or the Rents payable hereunder, conditional in nature or otherwise, which assignment is made to the holder of any Mortgage on the Premises, Tenant agrees: (a) that the execution thereof by Landlord, and the acceptance thereof by such holder, shall never be deemed an assumption by such holder of any of the obligations of Landlord hereunder, unless such holder shall, by written notice sent to Tenant, specifically otherwise elect; and (b) that, except as aforesaid, such holder shall be treated as having assumed Landlord's

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obligations hereunder only upon foreclosure of such holder's Mortgage and the taking of possession of the Premises by such holder.

ARTICLE 21
WAIVER OF TERMINATION

Notwithstanding anything to the contrary contained in this Lease, Tenant waives any right to terminate this Lease for a default by Landlord or, except as specifically set forth pursuant to the terms of this Lease, for any other reason whatsoever (whether available by statute or otherwise).

ARTICLE 22
NOTICES

Notices required under this Lease shall be in writing and shall be given by certified mail (with return receipt requested), at the respective address(es) of the parties set forth below, or to such other address(es) as either party may from time to time designate in writing to the other; or, if to Tenant, such notice may also be mailed in the manner described above, delivered by a recognized delivery service (such as Federal Express), by telecopy or by hand at the Premises. Any notice under this Lease delivered by certified mail shall be deemed to have been given three (3) business days after it is properly placed in the mails with sufficient postage prepaid; and any notice delivered by recognized delivery service shall be deemed to have been given on the first business day following the day deposited with such recognized delivery service (all other methods of notice being deemed to have been given upon actual receipt thereof). A notice properly given on behalf of Landlord by Landlord's management company or manager, or by an attorney representing Landlord or its manager or management company, shall be deemed for all purposes to be a notice from Landlord.

To Landlord:

SEAGATE, INC.
One O-I Plaza
One Michael Owens Way
Perrysburg, OH 43551-2999
Attention: Corporate Secretary

with copy to:

OWENS-ILLINOIS, INC.
One O-I Plaza
One Michael Owens Way
Perrysburg, OH 43551-2999
Attention: General Counsel

To Tenant:

O-I CARIBBEAN SALES & DISTRIBUTION, INC.
One O-I Plaza

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One Michael Owens Way
Perrysburg, OH 43551-2999
Attention: Corporate Secretary

with copy to:

OWENS-ILLINOIS, INC.
One O-I Plaza
One Michael Owens Way
Perrysburg, OH 43551-2999
Attention: General Counsel

ARTICLE 23
MISCELLANEOUS

Section 23.1 Successors and Assigns. The conditions, covenants and agreements contained in this Lease shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors and assigns. Nothing in the immediately preceding sentence shall be deemed to permit assignment or subletting in violation of Article 13 of this Lease.

Section 23.2 Severability. If any one or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, unenforceability shall not affect any other provision of this Lease, but this Lease shall be construed as if such invalid, illegal or unenforceable provision had not been contained herein.

Section 23.3 Governing Law; Construction. This Lease shall be construed and enforced in accordance with the laws of the Commonwealth of Puerto Rico. All of the parties to this Lease have participated (or have had the opportunity to participate) fully in the negotiation and preparation hereof, and, accordingly, this Lease shall in all cases be construed as a whole according to its fair meaning and not strictly for or against either Landlord or Tenant.

Section 23.4 No Waiver. The failure of either party to insist in any one or more instances upon the strict performance of any one or more of the agreements, terms, covenants, conditions or obligations of this Lease, or to exercise any right, remedy or election herein contained, shall not be construed as a waiver or relinquishment for the future of the performance of such one or more obligations of this Lease or of the right to exercise such right, remedy or election, but the same shall continue and remain in full force and effect with respect to any subsequent breach, act or omission. This Lease may be changed or amended only by a writing signed by the party against whom enforcement thereof is sought.

Section 23.5 Consent. Wherever in this Lease Landlord's consent or approval is required and Landlord delays or refuses such consent or approval, Tenant shall not be entitled to make (and shall not make) any claim, and Tenant hereby waives any claim, for money damages (nor shall Tenant claim any money damages by way of set-off, counterclaim or defense) based upon any claim or assertion by Tenant that Landlord unreasonably withheld or delayed

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Landlord's consent or approval. Tenant's sole remedy in every such case shall be an action or proceeding for specific performance to enforce Landlord's obligation.

Section 23.6 Force Majeure. In the event that either party hereto shall be delayed or hindered in or prevented from the performance of any act required hereunder by reason of strikes, lock-outs, labor troubles, inability to procure materials, failure of power, restrictive governmental laws or regulations, inability to secure governmental permits or approvals where diligent efforts are made to obtain same, condemnation, fire or other similar casualty, hurricane, earthquake, tsunami or other acts of God, riots, insurrection, war or other reason of a like nature not the fault of the party delayed in performing work or doing acts required under the terms of this Lease, then performance of such act shall be excused for the period of the delay and the period for the performance of such act shall be extended for a period equivalent to the period of such delay. It is understood, however, that this provision shall not operate to excuse Tenant from the prompt payment of rental or any other payments required by the terms of this Lease.

Section 23.7 Brokers. Tenant warrants and represents that it has not dealt with any broker in connection with the consummation of this Lease, and in the event of any brokerage claims against Landlord predicated upon prior dealings with Tenant, Tenant agrees to defend the same and indemnify the Landlord against any such claim.

Section 23.8 Expenses. Unless prohibited by applicable law, Tenant agrees to pay to Landlord the amount of all legal fees and expenses incurred by Landlord arising out of or resulting from any act or omission by Tenant with respect to this Lease or the Premises, including, without limitation, any breach by Tenant of its obligations hereunder. Further, if Tenant shall request Landlord's consent or joinder in any instrument pertaining to this Lease, Tenant agrees promptly to reimburse Landlord for the legal fees incurred by Landlord in processing such request, whether or not Landlord complies therewith; and if Tenant shall fail promptly so to reimburse Landlord, the same shall be deemed to be a default in Tenant's monetary obligations under this Lease. Whenever Tenant shall request approval by Landlord of plans, drawings, specifications, or otherwise with respect to the initial construction of the Premises, subsequent remodeling thereof, installation of signs including subsequent changes thereof, or the like, Tenant specifically agrees promptly to pay to Landlord all charges involved in the review (and re-review, if necessary) and approval or disapproval thereof whether or not approval shall ultimately be given.

Section 23.9 Interest. All payments becoming due under this Lease and not paid when due shall bear interest from the applicable due date until received by Landlord at the lesser of: (i) four percent (4%) per annum above the base rate announced from time to time by Citibank, N.A. (at its New York office) or its successors; or (ii) the highest lawful rate of interest permitted at the time in The Commonwealth of Puerto Rico.

Section 23.10 Registration. Either party is entitled (but not obligated) to record this Lease in the corresponding Registry of Property or other proper place of recordation. Should either party decide to exercise this right, the legal, notarial, recording and any other fees and expenses incidental to (i) the preparation, execution and recording of this Lease and any additional instrument or instruments as may be required, and (ii) the cancellation of such recording upon the termination or other expiration of this Lease, shall be borne by the party so

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electing to record. Both parties agree to perform such other acts which may be necessary to satisfy the recording requirements, at the expense of the Tenant.

Section 23.11 Waiver of Right of Redemption. To the extent permitted by law, Tenant hereby expressly waives any and all rights of redemption granted by or under any present or future laws in the event of Tenant being evicted or dispossessed for any cause, or in the event of Landlord obtaining possession of the Premises, by reason of the violation by Tenant of any of the covenants or conditions of this Lease, or otherwise

Section 23.12 Entire Agreement. This Lease contains all of the agreements between the parties hereto, supersedes all prior and/or contemporaneous agreements and understandings and it may not be modified in any manner other than by an agreement in writing signed by all the parties hereto or their successors in interest.

Section 23.13 Survival. All obligations of Tenant which are or may be intended by their nature to be performed and/or complied with after the expiration or earlier termination of this Lease shall survive such expiration or termination. Express provisions herein which require or permit survival in specific instances, or as to specific obligations, shall not be deemed a limitation upon the generality of this survival clause. Each term and provision of this Lease to be performed by Tenant shall be construed to be both a covenant and a condition.

Section 23.14 Time of Essence. All time specified herein shall be of the essence hereof. Express provisions herein which recite in specific circumstances that time shall be of the essence shall not be deemed a limitation upon the generality of this paragraph.

Section 23.15 Hand Deletions. The physical deletion of any portion of this Lease should not be construed as an intention that the opposite of such deleted language should apply. All deletions should be construed as if never originally included in this Lease (or in any prior drafts hereof) for any purpose whatsoever and the Lease should be construed accordingly, the deleted language being merely ignored completely for all purposes.

Section 23.16 No Offer. It is understood and agreed that this Lease is offered to Tenant for signature subject to Landlord's acceptance and approval, and that Tenant shall have affixed its signature hereto with the understanding that such act shall not, in any way, bind Landlord until such time as this Lease shall have been approved and executed by Landlord and unconditionally delivered to Tenant.

Section 23.17 Separate Covenants. Except as otherwise expressly provided in this Lease, each covenant, agreement, obligation or other provision of this Lease on Tenant's part to be performed shall be deemed and construed as a separate and independent covenant of Tenant, not dependent on any other provision of this Lease.

Section 23.18 No Third Party Beneficiaries. No provisions of this Lease, express or implied, are intended or shall be construed to confer upon or give to any person other than Landlord and Tenant, any rights, remedies or other benefits under or by reason of this Lease unless specifically provided otherwise herein, and except as so provided, all provisions hereof shall be personal solely between Landlord and Tenant.

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Section 23.19 Counterparts. This Lease may be executed in counterparts, each of which shall be deemed an original. Facsimile signatures shall bind Landlord and Tenant as if such signatures were an original.

[SIGNATURE PAGE FOLLOWS]

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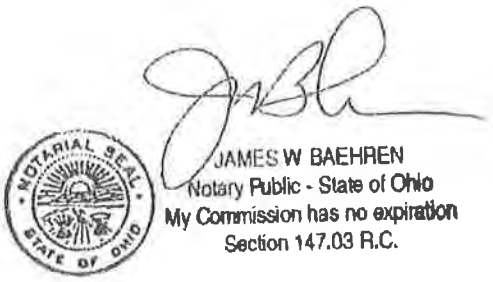
IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the day and year first above written.

Landlord:

SEAGATE, INC., an Ohio corporation

By: _____
Name: Ryan W. Haywood
Title: Asst. Secretary



Tenant:

O-I CARIBBEAN SALES & DISTRIBUTION, INC., a Delaware corporation

By: _____
Name: Ryan W. Haywood
Title: Asst. Secretary

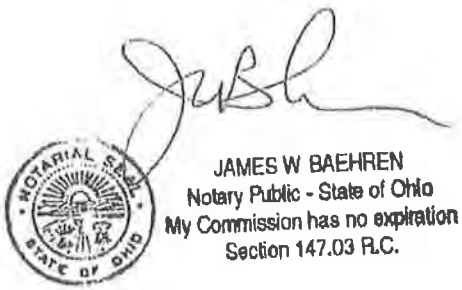


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EXHIBIT A

DESCRIPTION OF REAL PROPERTY

"RUSTICA: Parcela de terreno de forma irregular radicada en el Barrio Sabana de Vega Alta Puerto Rico compuesta de treinta y tres cuerdas con siete mil seiscientos ochenta y cinco diezmilésimas de otra (33.7685) equivalente a ciento treinta y dos mil setecientos veintitrés metros cuadrados con cuarenta y dos centésimas de otro (132,723.42) equivalentes a su vez a treinta y dos acres con siete mil quinientos cincuenta y cinco diezmilésimas de otro (32.7555) lindes por el Norte, con terrenos propiedad de El Morro Corrugated Box Corporation, por el Sur, con terrenos de Luis Valdejuli, por el Este, igualmente con terrenos propiedad de Luis Valdejuli y por el Oeste, en parte con terrenos igualmente propiedad de Luis Valdejuli y en parte con la carretera Estatal Número Dos (#2) del Sector Cerro Gordo de la Playa de Vega Alta. Enclava una estructura de tipo industrial para uso de manufactura, almacenaje, y oficinas."

Recorded at page 21 of volume 151 of Vega Alta, Registry of the Property of Puerto Rico, Third Section of Bayamón, property number 7,715.

EXHIBIT E

December 19, 1983 Owens-Illinois, Inc.'s Response to USEPA's Request for Information

OWENS-ILLINOIS

E-345

Legal Department

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 19, 1983

Mr. Wayne N. Pierre
Hazardous Waste Site Branch
U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10278

Re: Owens-Illinois, Inc.
Vega Alta, Puerto Rico
Request for Information

Dear Mr. Pierre:

Enclosed is the Owens-Illinois de Puerto Rico, Vega Alta plant response to your request for information under 42 U.S.C. §9604(e)(1) and 42 U.S.C. §6927. A copy of the "Information Requested" questionnaire is also enclosed as Attachment A of our reply. Please note the Vega Alta plant's answers are keyed to the individual questions of your request.

The answers and records given in the enclosed reply are to the best of the plant's knowledge and records at the time of submission. The Vega Alta plant began operations in 1975; however, Owens-Illinois' Records Retention Policy does not require purchasing and other correspondence to be kept for more than two years. Therefore, the data provided in the enclosed reply may not represent all transactions since the beginning of plant operations but does represent those transactions found in the plant files during our search for information to respond to your request.

We will continue to review our records for any pertinent information which may be applicable to your request. If any such additional information is found, we will notify you.

One SeaGate Toledo, Ohio 43666 (419) 247-5000

After you have reviewed the enclosed material, we would very much like to have an opportunity to review any information the EPA may have on our Vega Alta facility. Moreover, we would like to meet with EPA to discuss any future RCRA or CERCLA activities.

Very truly yours,

OWENS-ILLINOIS, INC.

Harry M. Carey, Jr.
Legal Counsel

HMC:mjc

Enclosures

cc: William K. Sawyer, Attorney (le. only)
Waste & Toxic Substances Branch
Office of Regional Council
U.S. Environmental Protection Agency
Region II
26 Federal Plaza
New York, NY 10278
bcc: C. N. Frantz - 9 WHB
S. K. Higgins - Vega Alta Plant

OWENS-ILLINOIS, INC., VEGA ALTA CONTAINER PLANT
REPLY TO U.S.EPA, REGION II REQUEST FOR INFORMATION
UNDER 42 U.S.C. §9604(e)(1) DATE AUGUST 29, 1983*

Question 1

a) Owens-Illinois de Puerto Rico (PDR 090400285)
b) Fausto Rodriquiez, P.O. Box 387, Vega Alta, P.R.00672
Road 690 KM1.7
Ohio
c) Agent for service of process is Mr. Fausto Rodriguiez

Question 2

Operations began in November 1975 and continue to date.

Question 3

a) November, 1975
b) and c) See Attachment B
d) The manufacture of glass containers requires the use of lubricating oils and grease on various plant equipment. The majority of the waste oils result from the treating of recirculated contact cooling waters that are used to handle hot glass. Additionally, the manufacturing processes use molds, forming machines and other equipment which become coated with various oils and greases. This equipment is periodically cleaned by various cleaning solutions during rehabilitation or repair.

Question 4

a) The plant personnel have no information on the disposal of hazardous substances and/or wastes at any site in Vega Alta. Disposal companies located outside Vega Alta are listed on Attachment B.

b), c), d) and e) - not applicable.

Question 5

See answer to Question 3.

*See Attachment A for U.S. EPA request.

Question 6

Attachment C & D are the results of the analysis of water from wells on our property. Consultants for the U.S.EPA have also taken samples of these wells, but the results are unknown to us at this time.

Question 7

a) The "Waste Cleaning Solution" listed in Attachment A is produced as a result of metal cleaning operations and consists of up to 3 percent perchloroethylene in a caustic solution. Attachment E provides a general indication of this waste's composition and documents related to this waste's disposal (dates, payment receipts, etc.) are attached in Attachment F. We would note that the "degreaser room tank" mentioned on various purchase orders is the tank used to accumulate the"Waste Cleaning Solution" for disposal. This tank's capacity is 880 gallons and this volume has been used to estimate the quantity figures given in Attachment A.

b) See Attachment A and the answer to Question 7a.

c) See answer to Question 7a.

Question 8

No locations were identified related to Question 4b.

ATTACHMENT A

INFORMATION REQUESTED

1. a. State the full name of your company. For the purposes of this letter, your company shall be referred to as "the company".

   b. State the name(s) and address(es) of the current president

   c. Identify the street address, state of incorporation, and agent for service of process for the company and its facilities located in Vega Alta, Puerto Rico.

2. When did operations begin at the Vega Alta, Puerto Rico facility(s)?

   Do these operations continue today?

   (If the company has more than one facility, please identify each one and provide the address for each and answer all questions for each)

3. a. When (month and year) did the company begin to generate hazardous substances and/or wastes at this facility(s)?

   b. Identify the nature and quantity of all hazardous substances and/or wastes generated by each facility since it first began operations.

   c. During which years was each hazardous substance generated?

   d. Identify and describe the facility operation which generated the waste identified in 3.b and c, above.

4. a. State whether the company has ever disposed and/or spilled, arranged for disposal, supervised the disposal of, or in any way been involved in the disposal of hazardous substances or other wastes at any site located in Vega Alta.

   If your answer is no, please identify where any hazardous substances or wastes were disposed of.

   b. Identify on a suitably scaled map the location of each such disposal and/or spillage area.

   c. State the years during which disposal and/or spillage occurred at each such area.

   d. Identify the type and quantity of waste disposed and/or spilled at each such area and the years each waste type was disposed of there. To identify a chemical or other hazardous waste/substance, provide the name, composition and its source and/or origin.

   e. Provide copies of all documents relating to the operation, design, construction or inspection of each such area identified in 4b., above.

5. Are there any hazardous substances or waste which the company hauled, handled or treated in Vega Alta, Puerto Rico?

   If not identified in your answer to question 3, please identify the activity involving these substances and/or wastes and the nature and quantity of these substances and/or wastes.

6. Provide copies of any groundwater investigative studies performed by the company or its agents at or in the vicinity of the facility(s).

7. a. Describe all waste material that has been produced as a result of metal cleaning and/or degreasing operations at the facility(s) beginning when chlorinated metal cleaning and/or degreasing solvents were first used.

   b. What quantity of such waste material was disposed of in each calender year?

      Where was this waste disposed of?

   c. Identify each waste hauler that has picked up company waste consisting of or containing a chlorinated metal cleaning and/or degreasing solvent or any waste associated with metal cleaning and/or degreasing operations since the facility(s) began using such solvents. State the dates that the haulers picked up the waste, the type and quantity of solvent and the place of disposal. Also, provide all documents, including payment receipts, that relate to the hauling or disposal of such waste.

8. Identify all company employees or agents (supervisors included) who at any time have been responsible for work related to the disposal or handling of waste materials at the locations identified in 4.b., above. Identification shall include the individual's name, current address and phone number, if known, and company position and job description at the time the employee or agent had such responsibility.

ATTACHMENT B - Nature and Quantity of Hazardous Substance and/or Waste Generated at Vega Alta Plant

Year	Waste Oils	Waste Cleaning Solutions
1978	10,950 gallons(U.S.)	4,400 gallons(U.S.)
1979	330 "	7,040 "
1980	No records found	4,400 "
1981	3,750 gallons(U.S.)	2,640 "
1982	1,700 "	4,400 "
1983	4,500 "	3,520 "

Nature

Waste Oils consist of lubricating oils and greases resulting from the plant process and auxiliary equipment.

Waste Cleaning Solutions consist of caustic, chlorinated and non-chlorinated solutions resulting from the maintenance and cleaning operations at the plant.

Disposal Agents

1) Clear Ambient
GPO Box 1675
San Juan, P.R. 0936

2) Servicios Carbareon, Inc.
Suite 416 Cobians Plaza
Ave. Ponce de Leon
Santurce, PR 00909

3) Hydrocarbon Recovery Systems Inc.
P.O. Box 10441
Caparra Hts. STA
Puerto Rico 00922

ATTACHMENT C

LABORATORY TEST REPORT

Owens Illinois de P.R.
P.O.Box 387
Vega Alta, P.R. 00762
Attn: Eng. Ken Higgins

eqlab
ENVIRONMENTAL QUALITY LABORATORIES, INC.

Date. September 28,1983
Page 1 of 1

EQ LAB	CLIENT
W.O.#: 152-01-03	Facility:
D.S.#: 1165	P.O.#:
Date Sample Collected/Received: 9/19/83	Date Sample Collected: 9/15/83
Sample #: 2744 Source: Well Water 64976	Description:
2745 Well Water 64977	

SAMPLE #	PARAMETERS	RESULTS	UNIT	REMARKS
2744	Trichloroethylene	< 10	ppb	
	Tetrachloroethylene	11	ppb	
	1-1-1 Trichloroethane	< 10	ppb	
2745	Trichloroethylene	< 10	ppb	
	Tetrachloroethylene	< 10	ppb	
	1-1-1 Trichloroethane	< 10	ppb	

Note: These samples were analyzed at Gascoyne Laboratories, Inc. Copy of their report will follow.

Method Used: EPA 601/July 1982, Purgeable Halocarbons.

eported by:
itle:

Released by: José G. Vila
Title: General Manager

ATTACHMENT D

LABORATORY TEST REPORT

Owens Illinois de P.R.
P.O.Box 387
Vega Alta, P.R. 00762
Attn. Mr. Ken Higgins

eqlab
ENVIRONMENTAL QUALITY LABORATORIES, INC.

Date: August 19,1983
Page 1 of 1

EQ LAB	CLIENT
W.O.#: 152-01-03 D.S.#: 0951 and 0952 Date Sample Collected/Received: Aug.4/83	Facility: P.O.#: 15950 Date Sample Collected:
Sample #: 2398 2399 2400	Source: Well #1-Before Chlorination Well #2-Before Chlorination Wells 1 & 2-After Chlorination

Description:

SAMPLE #	PARAMETERS	RESULTS	UNIT	REMARKS
2398	Trichloroethylene	< 10	ppb	Grab
	Tetrachloroethylene	< 10	ppb	"
	1-1-1 Trichloroethane	< 10	ppb	"
2399	Trichloroethylene	< 10	ppb	Grab
	Tetrachloroethylene	< 10	ppb	"
	1-1-1 Trichloroethane	< 10	ppb	"
2400	Trichloroethylene	< 10	ppb	Grab
	Tetrachloroehtylene	< 10	ppb	"
	1-1-1 Trichloroethane	< 10	ppb	

ISMAEL MARTINEZ JIMENEZ
Químico Licenciado
Estado Libre Asociado de Puerto Rico
LICENCIA NUM. 1180

Reported by: Ismael Martínez
Title: Laboratory Manager

Released by: José G. Vila
Title: General Manager

ATTACHMENT E

PCI INTERNATIONAL INC.

PRD. 000706382

P.O. BOX 3624
OLD SAN JUAN STA.
SAN JUAN, P.R. 00905
TELS: 725-3010 / 725-3037

SUBSIDIARY OF
POLLUTION CONTROL INDUSTRIES, INC.
LOADING PORT, PUERTO ARECIBO
PUERTO RICO / TEL. 878-5603
TELEX: PCI INT'L 385610

GENERATOR'S WASTE MATERIAL PROFILE SHEET

GENERAL DIRECTIONS: In order for us to determine whether we can lawfully, safely and environmentally transport, store, treat or dispose of your waste stream, we must ask certain information about your waste. All of the information to be submitted should comply with USEPA Regulations promulgated pursuant to the RCRA Act of 1976 and any amendments made subsequent thereof. Be complete in your answers: if your response is "none", so indicate. Answers must be in ink or typewritten. Information you provide will be maintained in strictest confidence. Please make a copy of this form for your records.

THIS FORM AND ANY SUPPLEMENTAL INFORMATION SHOULD BE RETURNED TO THE ABOVE ADDRESS.

1. GENERATOR NAME: Owens Illinois de P.R., Inc.
2. GENERATING FACILITY NAME/ADDRESS: Owens Illinois de P.R., Inc.
   Route 690 Km. 1.5 Bo. Sabana Hoyos
   Vega Alta, P.R. 00762
3. COMPANY CONTACTS:
   GENERAL Fausto Rodriguez TITLE General Mgr. PHONE 725-5800
   Ken Higgins TITLE Plant Engineer PHONE 883-5830
   TECHNICAL Marcos E. Salamán TITLE Project Engineer PHONE 883-5800
   _____ TITLE _____ PHONE _____
4. WASTE NAME: Spent cleaning solution (plus 3% Perchloroethylene)
5. WASTE PROPERTIES:
   PROCESS GENERATING WASTE Molds and machine parts cleaning

   A. ORGANIC ( ) INORGANIC ( ) HAS BOTH ORGANIC AND INORGANIC COMPONENTS (X)

   B. PHASE/LAYERS BIOLOGICAL ( )
   MULTILAYERED ( )
   NONE ( )

   C. PHYSICAL STATE AT 70°F
   SOLID ( ) SEMI-SOLID ( ) LIQUID (X) POWDER ( )
   OTHER: _____

   D. VAPOR PRESSURE (IN MM OF Hg AT 25°C) _____

   E. SPECIFIC WEIGHT _____

   F. HEAT VALUE IN BTU/LB _____ ASH CONTENT _____ %
   TOTAL SOLIDS _____ TOTAL DISSOLVED SOLIDS _____
   pH 12.7 CYANIDE _____
   SULFIDE _____

   G. HEAVY METALS WITH CONCENTRATION RANGES: (as ppm)

	DISSOLVED	SUSPENDED		DISSOLVED	SUSPENDED
ARSENIC	0.36		COPPER		
CADMIUM	0.48		CHROMIUM	3.20	
LEAD	1.90		MERCURY	0.035	
MOLYBDENUM			NICKEL		
SELENIUM	0.30		SILVER	0.64	
OTHER Barium less than 1.0			OTHER		

   H. ACIDITY - ALKALINITY:

H_2SO_4	%	H_3PO_4	%
HCl	%	NaOH	%
HNO_3	%	$Ca(OH)_2$	%
OTHER	%		%
	%		%
	%		%

DOES THIS WASTE STREAM CONTAIN BIOLOGICAL MATERIALS, PATHOGENS, OR ETIOLOGICAL AGENTS?

NO

DOES THIS WASTE FALL INTO THESE RCRA CATEGORIES? IF YES, ATTACH THE LABORATORY RESULTS OF ANALYSES.

	YES	NO
IGNITABILITY (FLASH POINT)	☐	☒
CORROSIVITY (pH, STEEL CORROSION)	☒	☐
REACTIVITY (CYANIDE, SULFIDE EVOLUTION)	☒	☐
EP TOXICITY (EXTRACTION & ANALYSIS)	☐	☒

6. IS THIS WASTE A "HAZARDOUS WASTE" AS DEFINED BY REGULATIONS OF THE U. S. ENVIRONMENTAL PROTECTION AGENCY PURSUANT TO SECTION 3001 OF THE RESOURCE CONSERVATION AND RECOVERY ACT? YES

   (1) IF THE WASTE IS A LISTED HAZARDOUS WASTE, STATE:

   (a) THE LISTED DESCRIPTION OF THE WASTE: _____

   (b) THE HAZARD CRITERIA FOR WHICH THE WASTE IS LISTED: _____

   (2) IF THE WASTE IS NOT LISTED, WHAT HAZARDOUS CHARACTERISTIC(S) DOES IT POSSESS?
   CORROSIVE

7. IS THE INFORMATION PROVIDED IN SECTION 5 BASED UPON LABORATORY ANALYSIS OF THE WASTE MATERIAL? YES. IF SO, PLEASE ADVISE OF THE DATE OF THE MOST RECENT ANALYSIS: 1/15/81

8. HAVE YOU OBTAINED TOXICITY STUDIES OF THIS WASTE STREAM? YES IF SO, PLEASE ATTACH A COPY OF THE RESULTS.

9. QUANTITY/SHIPPING REQUIREMENTS:
   ANTICIPATED VOLUME IS: 850
   GALLONS ☒ TONS ☐ CUBIC YARDS ☐ DRUMS ☐ OTHER ☐ _____
   PER: DAY ☐ WEEK ☐ MONTH ☐ YEAR ☐ ONE TIME ☒
   TRANSPORTATION EQUIPMENT REQUIRED: Tanker-truck with corrosive placards

10. GENERATOR I.D. NUMBER PRD090402B5
11. PROPER DOT SHIPPING NAME Waste sodium hydroxide solution
12. DOT HAZARD CLASS Corrosive material
13. U.N. NUMBER 1824
14. EPA/EQB HAZARD CODE C
15. EPA/EQB WASTE TYPE D002

GENERATOR'S AUTHORIZED SIGNATORY: _____ TITLE Gen. Mgr. DATE 1/14/81
FAUSTO RODRIGUEZ

CONFIDENTIALITY AGREEMENT:
as consideration for the Generator's release of the above information, and any other supplemental data provided, agrees to treat such information as confidential property and will not disclose such information to others except as is required by law, and in such circumstances only after first giving notice to the Generator.

By: _____
MARCOS E. SALAMAN

PROJECT ENGINEER
Title

ATTACHMENT F

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	J. Pastor	4-25-78

PURCHASE ORDER

Services 1978

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.
	April 28, 1978	05171

Clear Ambient Services
G. P. O. Box 1675
San Juan, P.R. 00936

SHIP TO
Owens-Illinois of P.R.
Road 690, Km. 1.7
Vega Alta, P.R.

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
4-26-78	Your truck	Our plant	N/30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
1		Limpiar tanque de Mold Shop.	$ 60.00	

Confirming order. Do not duplicate.

CLEAR AMBIENT SERVICE CO.
LIQUID WASTE HAND[illegible]
G. P. O. BOX 1676
SAN JUAN, PUERTO RICO 00936
TEL. 781 - 7868

0378

26 de Abril 1978

SR. Owens - Illinois P.R.
Calle #2 Buena Vista P.R.
Cont. #690

ATT: Sr. Lastra

CONDUCE

Remoción de fondo de petróleo de un tanque	$60	00
Jorge L. Nieves	60	00

T.M.

INVOICE

CLEAR AMBIENT SERVICES CO
GPO BOX 1675
SAN JUAN, P. R. 00936
TEL. 789-7004
Tel. Ofic - 785-0905

NO.

DATE 5/2/78

YOUR ORDER NO. 05171

SOLD TO • Queens, Illinois de P.R.
• P.O. Box 387
• Vega Alta, PR 00762

SHIPPED TO

OUR ORDER NO.	SALESMAN	TERMS	F.O.B.	DATE SHIPPED	SHIPPED VIA

QUANTITY ORDERED	QUANTITY SHIPPED	STOCK NUMBER/DESCRIPTION	UNIT PRICE	UNIT	AMOUNT
		Por servicio de remoción de producto de petróleo de un tanque			$60

DEPARTMENT OF TREASURY
MAY 4 1978
RECEIVED

FORM 90-321 DUP. 90-331 TRIP. 90-341 QUAD.
A BOORUM & PEASE PRODUCT

ORIGINAL

OWENS ILLINOIS de ERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-201 57 10338
215

Mar 12, 1972

PAY [redacted] DOLLARS $60.00

TO THE ORDER OF
Clean Ambient Service Co.
C.P.O. Box 1675
San Juan, Puerto Rico 00936

OWENS ILLINOIS de PUERTO RICO

BANCO POPULAR DE PUERTO RICO
VEGA ALTA, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE DATE	INVOICE No.	DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS DISCOUNT	DEDUCTIONS FREIGHT	NET AMOUNT
3-2-72	037	V-J 079 Acct.# 4121				60.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	REQUISITION NO.
10-7143-450 Item 1 10-7133-450 Item 2	A. Holladay	1116 1117 5-11-78

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

Clear Ambient Services Co.
G. P. O. Box 1675
San Juan, P.R. 00936

DATE May 11, 1978

PURCHASE ORDER No. P.R.-- 05259

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens-Illinois of P.R.
Road 690, Km. 1.7
Vega Alta, P.R.

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
A S A P	Your truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Remove 150 drums of waste oil from plant site (oil only)	$300.00/L.S.	
		Remove fine glass deposit from cullet water system. To be billed at rate of $64.00 hr. All inclusive.		
		Environmental Quality Board Permission # 3.		

JUL 1978

CLEAR AMBIENT SERVICE CO.
C.P.O.BOX 1675 Tel. 788-0905
SAN JUAN, PUERTO RICO 00936

NO. 1
P.O.

Owens Illinois Inc.
Carr. #690

RE: Vega Alta P.R.

May 12, 1979
DATE

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	TOTAL	
	Driver	1				
	Driver Asst	1		7 hrs @ 64.00		
	Laborer				$448.00	
	Supervisor	1				
EQUIP:						
	Vac Truck	1				
MATERIAL:						
OTHER:						
REMARKS:						

FOREMAN: Luis E. Arroyo
CLEAR AMBIENT

APROVED BY: [illegible]
CLIENT

Salida Lalan 10:40 AM
Llegada Owens 11:30 A.M

Salida Owens para Vertedero
@ 3 30 P.M
Llegada Lalan 5:00 P.M

AMBIENT SERVICE CO.
LIQUID WASTE HANDLI
G. P. O. BOX 1678
SAN JUAN, PUERTO RICO 00936
TEL. ~~781 - 7868~~

7380905 0823

17 de Mayo 1978

SR. Owens Illinois
Carr 690 Vega Alta

Fabrica de Botella

CONDUCE

	Servicio remocion de aceite de 150 drums →	300.00	
1-	Mayo 17. 56 Drums		
2-	Mayo 23- 67 + 1		
3-	" 26- 27		
	150 Drums		
	Derrick recibio		

INVOICE

CLEAR AMBIENT SERVICES CO.
GPO BOX 1675
SAN JUAN, P. R. 00936
TEL. 789-7004

JUN 4 1978

NO.

DATE 6/2/78

YOUR ORDER NO. 05259

SOLD TO: Owens Illinois de P.R.
P.O. Box 387
Vega Alta, P.R. 00762

SHIPPED TO

OUR ORDER NO.	SALESMAN	TERMS	F.O.B.	DATE SHIPPED	SHIPPED VIA

QUANTITY ORDERED	QUANTITY SHIPPED	STOCK NUMBER/DESCRIPTION	UNIT PRICE	UNIT	AMOUNT
		① For removal of 150 drums of waste oil from pent site on May 14, 20, 21.			$300 —
		② Removal of fine glass deposit from cullet water system on May 12 7 hrs @ 64.00 hr			$448 —
		Total			$748 —

FORM 98-321 DUP. 98-331 TRIP. 98-341 QUAD.
A BOORUM & PEASE PRODUCT

ORIGINAL

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

1757

July 1, 19 78

PAY [illegible] DOLLARS $ 748.00

TO THE ORDER OF

CLEAR AMBIENT SERVICES
GPO BOX 1675
San Juan, PR 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
NATO REY PUERTO RICO

⑆0215⑈0204⑆ 0492434

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
7-1-78	0623	V-F-066 Acc. No. 4121				$748.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A. Cerro	5-31-78

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.
	June 2, 1978	05347

Clear Ambient Services
P. O. Box 1675
San Juan, P.R. 00936

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 397
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens-Illinois of P.R.
Road 690, Km. 1.7
Vega Alta, P.R.

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
RUSH	Your truck	Vega Alta,	N/30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty tank from Degreaser Room		OK $60.00
		Confirming order. Do not duplicate.		

A-P

CLEAR AMBIENT SERVICE

LIQUID WASTE HANDLING

G. P. O. BOX 1675

SAN JUAN, PUERTO RICO 00936

TEL. 781 - 7868

5759

5 de _____ 19 71

SR. Cristina Electric

Vega Alta

orden compra #5347

CONDUCE

	Serv. Vac. Truck	
	Empleado de Tanque	
	Jose L. Nieves	

[illegible] SERVICES CO.
GPO BOX 1675
SAN JUAN, P. R. 00936
TEL. 789-7004

INVOICE

NO.

DATE 7/3/78

YOUR ORDER NO. 5347

SOLD TO • Owens Illinois of P.R.
• P.O. Box 387
• Vega Alta, P.R. 00762

SHIPPED TO

OUR ORDER NO.	SALESMAN	TERMS	F.O.B.	DATE SHIPPED	SHIPPED VIA

QUANTITY ORDERED	QUANTITY SHIPPED	STOCK NUMBER/DESCRIPTION	UNIT PRICE	UNIT	AMOUNT
		For removal & disposal of waste products of tank from Degreaser room on 5/6/78			OK $60.—

RECEIVED
JUL 06 1978

ORIGINAL

98-321 DUP. 98-321 TRIP. 98-321 QUAD.
ORUM & PEASE PRODUCT

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

2337

AUGUST 1, 1978

PAY [redacted] DOLLARS $ 60.00

TO THE ORDER OF

CLEAR AMBIENT SERVICES CO.
GPO BOX 1675
SAN JUAN, PR 00936

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE DATE	INVOICE No.	DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS DISCOUNT	DEDUCTIONS FREIGHT	NET AMOUNT
7-3-78		V-G-150 Acc. No. 4111				$60.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40 7140 403	A. Caro	7/31/78

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

DATE 8/1/78

PURCHASE ORDER No. P.R.-05588

Cheer Ambient Services
G.P.O. Box 1675
San Juan, P.R. 00936

SEND INVOICE IN TRIPLICATE TO:

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens Illinois de P.R.
Box 387
Vega Alta, P.R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
8/4/78	your truck	VA	N/30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		To cover services at our plant degrasing tank	$60.00	OK
		CONFIRMING ORDER. DO NOT DUPLICATE		

PAID
OCT 3 1978

RECEIVED
AUG 02 1978
A.P.

Clear Ambient Se..ice Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER 384

DATE 9/5/78

SHIPPED TO:

SOLD TO: Owens Illinois de P.R.
Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COLL
	05588				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Por servicio de remoción de aceite de torque		8K $60.00

RECEIVED
SEP 28 1978

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

3172

October 3 1978

PAY [illegible] DOLLARS $ 770.00

TO THE ORDER OF

Clear Ambient Services & Co.
GPO Box 1675
San Juan, P.R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
9-5-78	384 385 389	Acc. 4111 Vo. I-115 Vo. I-275				$770.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	NO. / REQUISITION NO.
(8-24-78) 40 7140 403	A. Caro	8-24-78

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER | DATE: August 24, 1978 | PURCHASE ORDER No. P.R.-05710

Clear Ambient Services Co.
P.O. Box 1675
San Juan, P.R. 00936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens Illinois de P.R.
Road 690 Km. 1.7
Vega Alta, P.R.

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
A.S.A.P.	Your truck	V. A	Net 30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Please empty tank in degreaser room	$60.00 OK	
		CONFIRMING ORDER DO NOT DUPLICATE.		

RECEIVED
AUG 25 1978
A.P.

Order Complete

CLEAR AMBIENT SER CE. CO.
LIQUID WASTE HANDLING
C. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TEL. 781 - 7868

28 de Agosto 1978

SR. Owens Illinois Cons. # 690 Km. 1.7
Vega Alta P.R.

CONDUCE

Servicio de Remover Aceite.		
P.O. 05710		
[redacted]		

Order Complete

Aug 28 1978

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 385

DATE: 9/5/78

SHIPPED TO:

Queens Illinois de P. R.

SOLD TO:

Bzn 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COLL
	05710				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Por servicio de remocion de productos de petroleo de tanque y disposicion del mismo.		OK $60.00

Order Complete

RECEIVED
SEP 08 1978
ILLINOIS

ACCOUNT	REQUISITIONER & LOCATION	O.I. REQUISITION NO.
10-7140-403	Al Holladay	A-1336 10-3-78

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.
	10-12-78	05999

Clean Ambient & Services
C.P.O. Box 1675
San Juan, P.R. 00936

SHIP TO
Owens-Illinois de P.R.
Road 690 Km. 1.7
Vega Alta, P.R. 00762

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

RECEIVED
OCT 12 1978
A.P.
AUDITED

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
	Your truck	Vega Alta	Net 30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Remove 200 barrels of waste oil (oil only)	750.00	
		Confirming order. Do not duplicate		

PAID
NOV 29 1978

Clear Ambient Service, Co.

LIQUID WASTE HANDLING – TANK CLEANING

G. P. O. BOX 1675

SAN JUAN, PUERTO RICO 00936

TELS. 788-0678 - 788-0905

0081

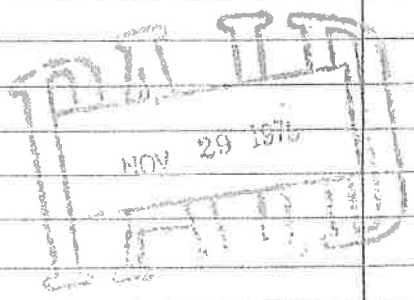
Owen - 27 de oct 19 78

SR.

Conduce

	Servicio de remoción de aceite		
	52 drums de aceite quemado		
	52 - restantes de [illegible]		

PAID NOV 29 1978



EXPRESS PRINTS 781-1045 - JOB 5216 B

Chofer [illegible] Cliente [illegible]

750

Clear Ambient Service, Co.

LIQUID WASTE HANDLING – TANK CLEANING
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00930
TELS. 788-0678 - 788-0905

0022

a/

10 de oct. 1978

SR. Omar Illinois
Bo Hayes Km. 690 - Vega Alta

Conduce

	Por servicio de recogido		
	de aceite quemado en		
	drones		
	P.O. 5899		
	200 drones		
	57 – 10/10/78		
	143		
	40 10/11/78		
	105		
	51		
	52 [illegible]		
	[illegible]		
	[illegible]		
	[illegible]		

EXPRESS PRINTS 781-1048 · JOB 8510 R

Chofer _____ Cliente [illegible]

Clear Ambient Service Co
P.O. Box 1675
San Juan P.R. 00936

INVOICE

NUMBER: 456

DATE: 11/2/78

SHIPPED TO:

SOLD TO:

Owens - Illinois de P.R.
P.O. Box 387
Vega Alta P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COLL
	05999				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For the removal of 200 barrels of waste oil.		OK $750.00

RECEIVED NOV 09 1978

PAID NOV 29 1978

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

3953

November 29 19 70

PAY _____ DOLLARS $ 750.00

TO THE ORDER OF

Clear Ambient Service, Co.
G.P.O. Box 1575
San Juan, P.R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
11-2-70	466	Acc. 4111 Va. E-699				$750.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A. Caro	10-31-73

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No.
	11-1-73	P.R.-06124

Clear Ambient Service
G.P.O. Box 1675
San Juan, Puerto Rico 00936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens-Illinois de P.R.
Road 690 Km. 1.7
Vega Alta, P.R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Imm.	Your Truck	Vega Alta	Net 30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
1		Empty Tank in Degreaser Room	60.00	60.00

RECEIVED
NOV 08 1973
P.R.

Clear Ambient Service, Co.

LIQUID WASTE HANDLING – TANK CLEANING

G. P. O. BOX 1678

SAN JUAN, PUERTO RICO 00936

TELS. 788-0678 - 788-0905

0101

[illegible] de Nov 1975

SR. [illegible]

[illegible] Vega Alta

Conduce

	Por servicio de		
	remoción de [illegible]		

EXPRESS PRINTS 781-1045 - JOB 5516 G

[illegible] Cliente

Clear Ambient Service Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 — 788-0905

INVOICE

NUMBER: 470

DATE: 11/8/78

SHIPPED TO:

SOLD TO: Owens Illinois de P.R.
P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PRO OR COL
	6124		30 days		

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Empty Tank in degreaser room		$60.00

RECEIVED
NOV 13 1978

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

4014

December 5 19 78

PAY _____ DOLLARS $ 60.00

TO THE ORDER OF
Clear Ambient Service, Co.
G.P.O. Box 1675
San Juan, P.R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
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If not correct please notify us promptly. No receipt desired.

INVOICE DATE	INVOICE No.	DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS DISCOUNT	DEDUCTIONS FREIGHT	NET AMOUNT
11-8-78	470	Acc. 4111 Vo. K-141				$60.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
30-7133-450	Carlos Quintana	Q-1407 11-21-78

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No.
	12-6-78	P.R.-06332

Clear Ambient Service
G.P.O. Box 1675
San Juan, P.R. 00936

SHIP TO
Owens-Illinois de P.R.
Road 690 Km. 1.7
Vega Alta, P.R. 00762

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Received	Your truck	Vega Alta	Net 30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
1		Clean surface of cullet water retention tank by removing contaminated oil and sladge	D4	
3		Drain Cullet sump Drain 10,000 gal. oil reclaim tank of 1,500 gals.	1,226.05 Total	

Confirming order. Do not duplicate

RECEIVED
DEC 06 1978
ACCOUNTING

RECEIVED
MAR 8

[illegible] 8:10 [illegible] 1:00 PM
Entrada Oriental 9:15 Entrada S. [illegible] 2:30 PM

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

TIME DISTRIBUTION SHEET

NO. _____

P. O. _____

DATE 25 de noviembre de 1979

Owens Illinois
Vega Alta, Puerto Rico

RE limpieza de tanque

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	SUB TOTAL	TOTAL
	Chofer	1	6	4.50	$	27.00
	asistente	1	6	4.25		25.50
					$	52.50
EQUIPMENT:						
Vacum-Truck		1	6	35.00/hr.	$	210.00
MATERIAL:						
OTHER:						

JAN 9 1979

REMARKS:

[illegible]

[illegible]

FOREMAN R. Pimentel
CLEAR AMBIENT

APPROVED BY: [signature]
CLIENT

Salida de 8:00 A.M. Salida de Owens 2:30 PM
Llegada Owens 8:55 AM Llegada Salon 4:00 PM

TIME DISTRIBUTION SHEET

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

NO. _____

P. O. _____

DATE 24 de noviembre de 1978

Owens Illinois

RE limpieza de Tanque

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	SUB TOTAL	TOTAL
	Chofer	1	8	4.5	$	36.00
	asistente	1	8	4.25		34.00
					$	70.00
EQUIPMENT:						
Vacum - Truck		1	8	35.00 hr.	$	280.00
MATERIAL:						
OTHER:						

REMARKS:

[illegible]

FOREMAN [signature]
CLEAR AMBIENT

APPROVED BY: [signature]
CLIENT

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

8:30 A.M. Salida Solar
8:45 A.M. Llegada Owens

TIME DISTRIBUTION SHEET

Salida Owens 3:00 P.M.
Llegada Solar 4:30 P.M.

Owens Illinois

P.O. _____

DATE 22 de noviembre

RE limpieza de tanque

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	SUB TOTAL	TOTAL
8 hrs. Regulares.	Chofer	1	8	4.50 R.T. 9.00 O.T.	36.00 9.00	$45.00
1 hr. O.T.	asistente	1	8	4.25 R.T. 8.50 O.T.	34.00 8.50	42.50
						$87.50
EQUIPMENT:						
Vacuum Truck		1	8	35 hr.		315.00
MATERIAL:						
OTHER:						

REMARKS: Seguimos la hora de las 12:00 pm el Sr. Quintana y el lo autorizo.

FOREMAN Eduardo Ortiz
CLEAR AMBIENT

APPROVED BY: [signature]
CLIENT

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 792

DATE: 12/12/78

SHIPPED TO:

Aurora Alliance de P.R

SOLD TO:

P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COL
	06332				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Clean surface of oil/oil water retention tank by removing contaminated oil and sludge. Drain oil/oil sump. Drain 10,000 gal oil retention tank of sludge.		
	Labor	$210.00	
	Labor Burden	63.00	
	Overhead	84.00	
	Profit	53.55	
	Misc factor	16.50	
	Equipment	105.00	$1,536.05

DEC 14 1978

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

4318

January 8 1979

PAY One thousand two hundred twenty five and 05/100 DOLLARS $ 1,225.05

TO THE ORDER OF
Clean Ambient Serv.
G.P.O. Box 1575
San Juan, P.R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
12-12-78	492	Acc. 4111 Vo. L-097				$1,225.05

SPECIAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
10-7140-403	T. Caro	1/4/79

PURCHASE ORDER

Servicios 1979

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.-
	1/4/79	06438

Clear Ambient Services
G.P.O. Box 1675
San Juan, P.R. 00936

SEND INVOICE IN TRIPLICATE TO:

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens Illinois de P.R.
Road 690 Km. 1.7
Vega Alta, P.R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
~~received~~	~~your truck~~	~~V.A.~~	~~30 Net~~	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Please empty tank from Degrease Room	60.00	0K
		Confirming Order. Do not duplicate.		

PAID
FEB 14 1979

Clear Ambient Se ice Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 14

DATE: 1/16/79

SHIPPED TO:

SOLD TO: Queen Illinois de P. R.
P. O. Box 387
Vega Alta, P. R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B. OR C.O.D.
	06438				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Los servicios de vaciar tanque del "Degrease Room".		PR $60.00

JAN 19 19

OWENS ILLINOIS de PUERTO RICO
P.O BOX 387 VEGA ALTA, P.R. 00762

101-204
215

4785

February 14 19 79

PAY _____ DOLLARS $ 60.00

TO THE ORDER OF
Clear Ambient Service, Co.
C.P.O. Box 1675
San Juan, P.R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE DATE	INVOICE No.	DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS DISCOUNT	DEDUCTIONS FREIGHT	NET AMOUNT
1-16-79	14	Acc. 4111 Vo. A-057				60.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A. Caro	1-15-79

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.
	1-16-79	06519

Clear Ambient Services Co.
G.P.O. Box 1675
San Juan, P.R. 00936

SEND INVOICE IN TRIPLICATE TO:

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens-Illinois de P.R.
Road 690 Km. 1.7
Vega Alta, P.R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
1-19-79	YOur truck	Vega Alta	Net 30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Please empty tank from degreaser room	60.00	
		Confirming order. Do not duplicate		

PAID
JAN 2 1979

Clear Ambient Service Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS.: 788-0678 – 788-0905

INVOICE

NUMBER: 29

DATE: 2/5/79

SHIPPED TO:

Owens Illinois de P.R.

SOLD TO: P.O. Box 387
Vega Alta, P.R. 00762

0.65194

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For emptying waste oil tank from degreaser room on 12/17/79 Conduce # 0235		$60.00

FEB 08 1979

RECEIVED

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

5068

March 2 1979

PAY [illegible] DOLLARS $ 60.00

TO THE ORDER OF

Clear Ambient Service Co.
GPO Box 387
Vega Alta, P.R. 00762

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
2-5-79	29	Acc. 41[illegible] [illegible] B-072				$60.00
		direction expires				

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7240-403	Angel Rivera	E-40

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

DATE 2-27-79

PURCHASE ORDER No. P.R.-06754

Clear Ambient Services
G.P.O. Box 1675
San Juan, Puerto Rico

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

RECEIVED FEB 28 1979

SHIP TO
Owens-Illinois de P.R.
Road #690 Km. 1.7
Vega Alta, Puerto Rico

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Rush	your truck	Vega Alta	net 30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty Tank from Degreasing Room	60.00	OV
		Confirming Order. Do not Duplicate		

PAID MAR 1 1979

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

TIME DISTRIBUTION SHEET

NO. 23

P. O.

DATE 2/26/79

Queens Illinois
Vega Alta

RE Remoción Prod. tk 500 gls.

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	SUB TOTAL	TOTAL
	Chofer	1				
	Asistente	1				
EQUIPMENT:	Vac. Truck					
MATERIAL:						
OTHER:						
REMARKS: Ajuste						

Clear Ambient Se. vice Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 100

DATE: 3/13/79

SHIPPED TO:

Owens Illinois de P. R.

SOLD TO: P. O. Box 387
Vega Alta, P. R. 00672

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COD
	6754				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For empty tank from Degreasing Room on 2/26/79.		$60.00

RECEIVED
APR 19 1979

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

5599

April 17 19 79

PAY [redacted] DOLLARS $ 60 00

TO THE ORDER OF

Clear Ambient Service Co
G P O Box 1675
San Juan, Puerto Rico 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
4 17 79	100	Acc #4111 Po # C 205				60 00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7141-403	A-40 Tony Cero	A-40

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No.
	April 18, 1979	P.R.-07110

Clear Ambient Services Co.
G.P.O. Box 1675
San Juan, P. R. 00936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens-Illinois de P. R.
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
RUSH	Your truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Please empty degreaser tank.	60.00	
		Confirming Order - Do not duplicate		

RECEIVED
APR 19 1979

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 154

DATE: 5/7/79

SHIPPED TO:

Owens - Illinois de P.R.

SOLD TO: P. O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B. POINT
0457	07110				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For emptying tank from Degreasing room on 4/30/79		$60.00

RECEIVED
MAY 11 1979
PERSONNEL DEPT.

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

6424

June 1st. 19 79

PAY [redacted] DOLLARS $ 60.00

TO THE ORDER OF

Clear Ambient Services Co.
G.P.O. Box 1675
San Juan, P.R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
5-7-79	154	Acc.4111 Vo. E-176				$60.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A. Caro	6-11-79

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.-
	June 11, 1979	07450

Clear Ambient Service
G.P.O. Box 1675
San Juan, P. R. 00936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

RECEIVED
JUN 15 12 1979
REGISTRO

SHIP TO
Owens-Illinois de P. R.
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
6-11-79	Your truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty Degreaser Tank	60.00 LS	
		Confirming Order Do not duplicate		

PAID

Clear Ambient Service, Co.

LIQUID WASTE HANDLIN. - TANK CLEANING
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS. 788-0678 - 788-0905

0566

12 de Junio de 1979

SR. Autos Illinois

Calle #690 Km. 1.7
Vega Alta, P.R.

Conduce

	Remover desperdicios de petroleo de tanque		

EXPRESS PRINTS 761-1048 ~ JOB 5518 R

Chofer [illegible] Cliente

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 156

DATE: 7/2/79

SHIPPED TO:

SOLD TO: Aeeros-Illinois de P.R.
P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B. DESTINATION
	07450				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Emptying Degreaser tanks on 6/12/79		$60.00
	Conduce #0566 attached		

OWENS ILLINOIS de PUERTO-RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

7253

July 30, 19 79

PAY Sixty and 00/100 DOLLARS $ 60.00

Clear Ambient Service Co.
G.P.O. Box 1675
San Juan, P.R. 00936

TO THE ORDER OF

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
7/2/79	186	Acc. 4111 Vo. G-062				$ 60.00

FORM 1376-RG

OWENS-ILLINOIS DE PUERTO RICO

PURCHASE REQUISITION

Date	Charge Account	Regn. No.	Dept.	P. O. No.
6-26-79	5.0.43		A-1735	

Vendor 10-7133-450 R.P.

Address

Ship To

Invoice To

Date Required	Ship Via	F.O.B.	Terms	Sales Tax	Non-Exempt (Explain)
Today				☐ Exempt	☐

Quantity	Complete Description	Price	Amount
	Request services of "Ambient Service" to remove scrap oil		

Pd 8/23/79

Requisitioned by

Signed

Approved

Dept. Head

Remarks

PURCHASING COPY

Clear Ambient Service, Co.

LIQUID WASTE HANDLING [illegible] ANK CLEANING
G. P. O. BOX 1678
SAN JUAN, PUERTO RICO 00936
TELS. 788-0678 - 788-0905

0613

28 de Junio 1979

SR. Dulces Illinois
Cay. # 690 Km. 1.7
Vega Alta P.R.

Conduce

Por servicio de remoción
de producto de drones

Salida — 9 AM.
Llegada Dulces - 10 AM.
Salida Dulces 12 M.
Llegada — 1 PM.
1 chofer - 1 ayudante.
Se vacían 6 drones y
se llenó el camión del
tanque de almacenaje

EXPRESS PRINTS 741-1046 - JOB 5510 R

Chofer [illegible] Cliente [illegible]

Clear Ambient Service Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 — 788-0905

INVOICE

NUMBER: 201

DATE: 7/17/79

SHIPPED TO:

SOLD TO: Owen Illinois de P.R.
P. O. Box 387
Vega Alta, P.R. 00762

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Por servicio de camión y personal en remoción y limpieza de desperdicios de petróleo el 6/28/79.		$200.00
	Conduce # 0613 adjunto.		

21 1979

O-K

RECEIVED JUL 20 1979

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215

7534

August 23, 1979

PAY [redacted] DOLLARS $ 200.00

TO THE ORDER OF

Clear Ambient Service Co.
C.P.O. Box 1675
San Juan, P. R. 00936

OWENS ILLINOIS de PUERTO RICO

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
7-17-79	201	Acc. 4111 Vo. H-024				$200.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
46-7140-403	A. Caro	8-29-79

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

Clear Ambient Service
G.P.O. Box 1675
San Juan, Puerto Rico 00936

DATE August 29, 1979

PURCHASE ORDER No. P.R. 07936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

RECEIVED
AUG 29 1979
RECEIVED

SHIP TO

Owens Illinois de Puerto Rico
Carr. 690 Km. 1.7
Vega Alta, Puerto Rico 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Rush	Your Truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty Degreaser Tank	$ 60000	L.S.
			60.00	
		Pack up about 3 drums contaminated lubricating oil.		

PAID
OCT 30 1979

Clear Ambient Service, Co.
LIQUID WASTE HANDLING – TANK CLEANING
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS. 788-0678 - 788-0905

0812

12 de Sept 1979

SR. Owens Illinois
Carr. 690 Km. 1.7
Vega Alta, P.R.

Conduce

	Remover product		
	de tanque		

EXPRESS PRINTS 781-1045 - JOB 5216 G

Chofer [illegible] Cliente [illegible]

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 728

DATE: 10/1/79

SHIPPED TO:

SOLD TO: Quilmes Delicias
P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B. OR COLL.
	07936.				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For Empty degreaser tank		$60.00
			OK

RECEIVED OCT 09 1979

OCT 9 1979

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

101-204
215
8500

October 30 19 79

PAY _____ DOLLARS $ 60.00

TO THE ORDER OF

Clear Ambient Service, Co.
G. PO. Box 1675
San Juan, P.R. 00936

FIRST NATIONAL CITY BANK
HATO REY, PUERTO RICO

OWENS ILLINOIS de PUERTO RICO

OWENS ILLINOIS de PUERTO RICO
P.O. BOX 387 VEGA ALTA, P.R. 00762

DETACH AND RETAIN THIS STATEMENT
The attached check is in payment of items described below.
If not correct please notify us promptly. No receipt desired.

INVOICE		DESCRIPTION	TOTAL AMOUNT	DEDUCTIONS		NET AMOUNT
DATE	No.			DISCOUNT	FREIGHT	
10-1-79	728	Acc. 4111 Vo. J-045				$60.00

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A. Caro	10-15-79

PURCHASE ORDER

13000

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.-08232
	Oct. 17, 1979	

Clear Ambient Service
P.O. Box 1675
San Juan, P. R. 00936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens-Illinois de P. R
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
10-19-79	Your truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Please empty tank from degreaser room.	60.00	LS
		Confirming Order - Do not duplicate		

DEC 7 1979

Clear Ambient Service, Co.
LIQUID WASTE HANDLING - TANK CLEANING
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS. 788-0678 - 788-0905

0934

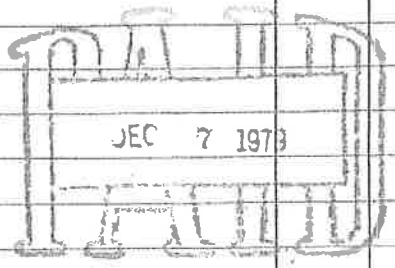
22 de Oct 1979

SR. Owens Illinois
Carr. #690 Km. 1.7
Vega Alta, P.R.

Conduce

Remoción de
desperdicios

PAID
DEC 7 1979



EXPRESS PRINTS 781-1045 - JOB 5516 B

Chofer [illegible] Cliente [illegible] 10/22/79 1:30

Clear Ambient Ser[illegible]e Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 — 788-0905

13000

INVOICE

NUMBER: 749

DATE: 11/5/79

SHIPPED TO:

SOLD TO: Queens Alliance De P.R.
P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COLL
0934	08232				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For empty tank from Degreaser room.		$60.00

RECEIVED
NOV 13 1979

PAID
DEC 7 1979

OWENS-ILLINOIS DE P.R.

06320

O.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT
	749	60.00						

CHECK DATE	CHECK NO.	CHECK AMOUNT	CLEAR AMBIENT SERVICE DETACH BEFORE DEPOSITING
12/03/79	00000247	60.00	

OWENS-ILLINOIS DE PUERTO RICO
P. O. Box 387, Vega Alta, Puerto Rico 00762

06320

DATE	CHECK NO.	AMOUNT
12/03/79	00000247	*****60.00

PAY TO THE ORDER OF
CLEAR AMBIENT SERVICE
P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

OWENS-ILLINOIS DE PUERTO RICO

NOT NEGOTIABLE

CITIBANK
Citibank, N.A. HATO REY, PUERTO RICO

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
60-7140-603	A. Rivera	11-5-79

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.
	Nov. 6, 1979	08337

Clear Ambient Service, Co.
G.P.O. Box 1675
San Juan, P. R. 00936

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens-Illinois de P. R.
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Recd.	Your truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty tank from degreaser room.	60.00	Total
		Confirming Order- Do not duplicate		
		Complete — 11/6/79		

Clear Ambient ervice, Co.

LIQUID WASTE HANDLING – TANK CLEANING

G. P. O. BOX 1675

SAN JUAN, PUERTO RICO 00936

TELS. 788-0678 - 788-0905

0964

6 de [illegible] 19 [illegible]

SR. [illegible]

Carr 690 Km. 1.7

Vega Alta, P.R.

Conduce

	P.O. # 8337		
	Remover [illegible]		
	1 chofer		
	1 ayudante		
	Salida C.A. - 10½ AM.		
	Llegada [illegible]		
	[illegible]		
	Llegada C.A.		
	[illegible]		
	[illegible]		

EXPRESS PRINTS 781-1045 - JOB 5516 M

Chofer [illegible] Cliente [illegible]

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

13000

INVOICE

NUMBER: 784

DATE: 12/10/79

SHIPPED TO:

SOLD TO: Quien Illinois de P.R.
P.O. Box 387
Vega Alta PR 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD OR COLL
0964	8337				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Por servicio de [illegible] y disposición de "[illegible]"		660.00
			OK N/S

RECEIVED
DEC 17 1979
2

OWENS-ILLINOIS DE P.R. 06596

NO	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT
1	784	60.00						

CHECK DATE	CHECK NO.	CHECK AMOUNT	CLEAR AMBIENT SERVICE
1/06/80	00000503	60.00	DETACH BEFORE DEPOSITING

OWENS-ILLINOIS DE PUERTO RICO
P. O. Box 387, Vega Alta, Puerto Rico 00762

06596

DATE	CHECK NO.	AMOUNT
1/06/80	00000503	*****60.00

PAY TO THE ORDER OF

CLEAR AMBIENT SERVICE
P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

OWENS-ILLINOIS DE PUERTO RICO

NOT-NEGOTIABLE

CITIBANK

Citibank, N.A. HATO REY, PUERTO RICO

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O.I REQUISITION NO.
40-7140-403	[illegible]	1/9/80

PURCHASE ORDER

Services - 1980

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.
	Jan. 10, 1980	08677

Clear Ambient Services
G.P.O. Box 1675
San Juan, P. R. 00936

SEND INVOICE IN TRIPLICATE TO:

12000/$80.00

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO:
Owens-Illinois de P. R.
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Super Rush	Your Truck	Vega Alta	N/30	☐ DIRECT PAY PERMIT ☑ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Please empty tank from degreaser room.	80.00 Total	
		Confirming Order - Do not duplicate		

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 882

DATE: February 7, 1980

SOLD TO:
Owens Illinois de P.R.
P.O. Box 387
Vega Alta, P.R. 00762

SHIPPED TO:

13000

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	FPD OR COLL.
	P.O. 08677				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For empty tank from degreaser room		$80.00

RECEIVED
FEB 13 1980

01 - PR
"Price and extension checked on"
By: MS
Date: 2/13/80

Clear Ambien Service, Co.

LIQUID WASTE HANDLING -- TANK CLEANING

G. P. O. BOX 1875

SAN JUAN, PUERTO RICO 00936

TELS. 788-0678 - 788-0905

1189

19

SR.

Conduce

	Vaciar Tanque de Succion	150	00
	Vac. Truck - 1		
	1130 Hours A.C.A		

EXPRESS PRINTS 783-5085 - JOB [illegible]

Chofer

Cliente

OWENS-ILLINOIS DE P.R.

07196

NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT
44	882	80.00						
63	860	2,166.90						

CHECK DATE	CHECK NO.	CHECK AMOUNT	CLEAR AMBIENT SERVICE
3/04/80	00001012	2,246.90	DETACH BEFORE DEPOSITING

OWENS-ILLINOIS DE PUERTO RICO
P. O. Box 387, Vega Alta, Puerto Rico 00762

07196

DATE	CHECK NO.	AMOUNT
3/04/80	00001012	**2,246.90

PAY TO THE ORDER OF
CLEAR AMBIENT SERVICE
P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

OWENS-ILLINOIS DE PUERTO RICO

NOT-NEGOTIABLE

CITIBANK
Citibank, N.A. HATO REY, PUERTO RICO

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A.L. Rivera	A 40

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

DATE March 6/80

PURCHASE ORDER No. P.R. 09007

CLEAR AMBIENT SERVI
G.P.O. BOX 1675
SAN JUAN, P.R. 936

SEND INVOICE IN TRIPLICATE TO:

13000/$80.00

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens-Illinois de P.R.
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
RUSH	YOUR TRUCK	VEGA ALTA	N/30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		EMPTY DEGREASER TANK (A.S.A.P.)	$0.00 ea.	
		CONFIRMING ORDER DO NOT DUPLICATE		

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

TIME DISTRIBUTION SHEET

NO. 32

P. O.

DATE Marzo 4, 1980

RE Owen Illinois
Vega Alta
Remocion de Aceite P.O. 9007

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	SUB TOTAL	TOTAL
	Chofer	1				
	Ayudante	1				
EQUIPMENT:						
Truck Tank		1				
MATERIAL:						
OTHER:						

REMARKS: Salida de Clear Ambient 8:00 AM
Llegada a Owen Illinois 9:00 AM
Salida de Owen Illinois 10:00 AM
Llegada a Clear Ambient

11:30

FORMAN [signature]
CLEAR AMBIENT

APPROVED BY: [signature]
CLIENT

Clear Ambient Service Co.

G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS.: 788-0678 – 788-0905

INVOICE

NUMBER
8040

DATE:
April 9, 1980

SHIPPED TO:

SOLD TO:
Owens Illinois de P. R.
P. O. Box 387
Vega Alta, P. R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B. OR POINT
	P. O. 09007				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For empty tank from degreases room ----------		$80.00

APR 21 1980

OWENS-ILLINOIS DE P.R.

07745

NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT
[illegible]	0040	80.00						

CHECK DATE	CHECK NO.	CHECK AMOUNT
4/24/80	00001496	80.00

CLEAR AMBIENT SERVICE

DETACH BEFORE DEPOSITING

OWENS-ILLINOIS DE PUERTO RICO
P. O. Box 387, Vega Alta, Puerto Rico 00762

07745

DATE	CHECK NO.	AMOUNT
4/24/80	00001496	*****80.00

PAY TO THE ORDER OF
CLEAR AMBIENT SERVICE
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

OWENS-ILLINOIS DE PUERTO RICO

NOT NEGOTIABLE

CITIBANK

Citibank, N.A. HATO REY, PUERTO RICO

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	Cano	A-48

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No.
	April 9, 1990	P.R. 09210

Clear Ambient Service
G P O BOX 1675
San Juan, PR 00936

13000/$ 80.00

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens Illinois de PR
Carr 690 KM 1.7
Vega Alta, PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
RUSH	YOUR TRUCK	VEGA ALTA	NET	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Pleas empty tank from degreaser room	80.00	Ea.
		CONFIRMING ORDER @ DO NOT DUPLICATE		

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

TIME DISTRIBUTION SHEET

NO. 13

P. O. Orden # 92B

DATE 4/9/80

RE Cuen Illinois DE P.R
Vega Alta Puerto Rico
Por Servicio de Remoción
DE ACEITE

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	SUB TOTAL	TOTAL
	Chofer	1				
	Ayudantes	1				
EQUIPMENT:						
Vac Truck		1				
MATERIAL:						
OTHER:						
REMARKS: Salida Solar						
Llegada OWEN						
Salida OWEN						
Llegada [illegible]						

FOREMAN [illegible]
CLEAR AMBIENT

APPROVED BY: [illegible]
CLIENT

Clear Ambient Service Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 8072

DATE: Mayo 14, 1980

SHIPPED TO:

SOLD TO: Owens Illinois de P.R.
P.O. Box 387
Vega Alta, Puerto Rico 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B. POINT
	P.O. 09210				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For the removal and disposal of degreaser		$80.00

RECEIVED
MAY 21 1980
LR

OWEN· ·LLINOIS DE P.R. 08102

NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO	YOUR INVOICE NUMBER	NET AMOUNT	V. NO	YOUR INVOICE NUMBER	NET AMOUNT
·197	8072	80.00						

CHECK DATE	CHECK NO.	CHECK AMOUNT	
6/09/80	00001808	80.00	CLEAR AMBIENT SERVICE DETACH BEFORE DEPOSITING

OWENS-ILLINOIS DE PUERTO RICO
P. O. Box 387, Vega Alta, Puerto Rico 00762

08102

DATE	CHECK NO.	AMOUNT
6/09/80	00001808	*****80.00

PAY TO THE ORDER OF

CLEAR AMBIENT SERVICE
P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936

OWENS-ILLINOIS DE PUERTO RICO

NOT NEGOTIABLE

CITIBANK
Citibank, N.A. HATO REY, PUERTO RICO

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7140-403	A. Cora	6-25-80

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R. 09535
	June 27, 1980	

Clear Ambient Service Co.
C P O BOX 1675
San Juan, PR 00936

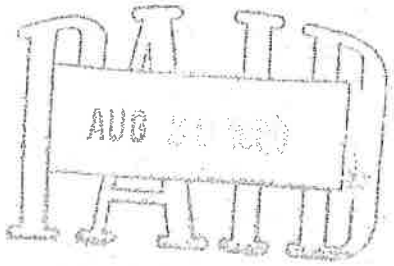
13000/$ 80.00

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 397
VEGA ALTA, PUERTO RICO 00762

SHIP TO
Owens Illinois de PR
Carr 690 HM 1.7
Vega Alta, PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
6-26-80	YOUR TRUCK	VEGA ALTA	NET 30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		To cover drainage of our degreaser tank	80.00	Ea.
		PAID AUG [illegible]		
		Confirming Order - Do not duplicate		



Clear Ambient Service Co.

TELS. 788-0678 - 788-0905

16 de julio 1980

SR. Queens Delicadis

Vega Alta

Conduce

Remoción de Degreaser

Salida CA — 8:30 AM

Llegada Queens 9:30 AM

Salida Queens 10:00 AM

Llegada CA — 11:30 AM

Incluye descarga [illegible]

PAID

AUG 29 1980

EXPRESS PRINTS 781-1048 JOB 5516 R

Chofer E Vazquez

Cliente

Clear Ambient Service Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 9023

DATE: Agosto 8, 1980

SHIPPED TO:

SOLD TO: Owens Illinois
P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	F.O.B.	COLD
	09535					

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Por servicio de vacuum truck y personal en la remoción de degreaser según conduce #1738 ----------		$80.00

AUG 29 1980

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O-I REQUISITION NO.
40-7140-403	A. Caro	A-40

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

DATE July 25, 1980

PURCHASE ORDER No. P.R 09601

Clear Ambient Service Co.
C.P.O. Box 1675
San Juan, P. R. 00936

SEND INVOICE IN TRIPLICATE TO:

13000/$80.00

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens-Illinois de P. R.
Carr. #690 Km. 1.7
Vega Alta, P. R. 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Rush	Your truck	V. A.	N/30	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty Degreaser Tank	80.00	Total

Confirming Order - Do not duplicate

PAID
AUG 29 1980

Clear Ambient Service, Co.

LIQUID WASTE HANDLING ... NK CLEANING
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS. 788-0678 - 788-0905

1738

1 de Julio 1980

SR. OWEN ILLIONOIS # 9535
Vega Alta P.R.

Conduce

	Remoción de Degreaser		

PAID
AUG 29 1980
PAID

EXPRESS PRINTS 783-1045 - JOB 5516 W

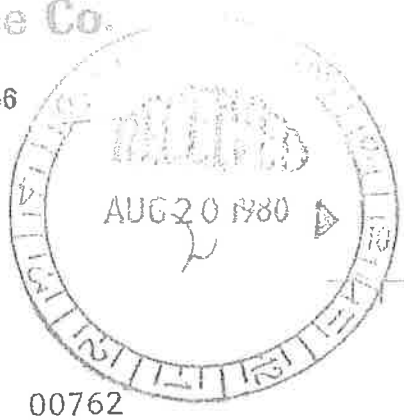
Chofer [illegible] Cliente [illegible]

Clear Ambient Service Co.
G. P. O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TELS: 788-0678 – 788-0905

INVOICE

NUMBER: 9024

DATE: Agosto 8, 1980

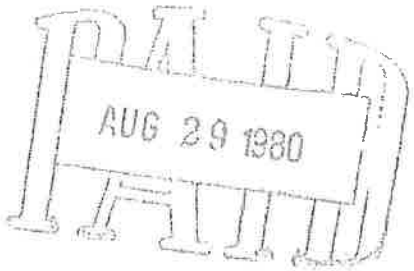


SHIPPED TO:

SOLD TO: Owens Illinois
P.O. Box 387
Vega Alta, P.R. 00762

OUR ORDER NO.	YOUR ORDER NO.	SALESMAN	TERMS	SHIPPED VIA	PPD. OR COLL.
	09601				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	Por servicio de vacuum truck y personal en la remoción de degreaser según conduce #1768 ----------		$80.00



OWENS-ILLINOIS DE P.R.

08837

NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT	V. NO.	YOUR INVOICE NUMBER	NET AMOUNT
38	9023	80.00						
39	9024	80.00						

CHECK DATE	CHECK NO.	CHECK AMOUNT
8/28/80	00002389	160.00

CLEAR AMBIENT SERVICE

DETACH BEFORE DEPOSITING

OWENS-ILLINOIS DE PUERTO RICO
P. O. Box 387, Vega Alta, Puerto Rico 00762

08837

DATE	CHECK NO.	AMOUNT
8/28/80	00002389	****160.00

HE ORDER OF
BIENT SERVICE
X 1675
.R. 00936

REY, PUERTO RICO

OWENS-ILLINOIS DE PUERTO RICO

NOT-NEGOTIABLE

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
10-7174-431	..D., Irizarry	I-0686 1-02-81

PURCHASE ORDER

Jennies-1981

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.-
	March 20, 1981	10474

Clear Ambient Service
G. P. O. Box 1675
San Juan, P.R. 00936

SEND INVOICE IN TRIPLICATE TO:

07800/$2,752.48

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens-Illinois, of P.R.
Road 690, Km. 1.7
Vega Alta, P.R.

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
Received	Service performed	O-I V.A.	N/30 days	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		To cover expenses service: drainage water tank		$2,752.48 LS

Completed 3/19/81

Confirming order. Do not duplicate.

PLANT PURCHASING

[illegible] Ambient S[illegible] Co.
P.O. B.O. [illegible]
[illegible]
[illegible]

INVOICE

NUMBER: 9162

DATE: February 9, 1981

SHIPPED TO:

SOLD TO: Owens Illinois de P.R.
P.O. Box 387
Vega Alta, P.R. 00762

CUR. ORDER NO.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	10474				

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL AMOUNT
	For labor and equipment service in the removal of wasted liquid and Plant maintenance as per invoices 0330, 0331, 0332, 0335 and ~~0342~~		$2,752.48 ~~$3,[illegible]~~

3/19/81
CHK

RECEIVED
FEB 12 1981

MAIL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O-I REQUISITION NO.
40-7140-403	A. Rivera	1-08-81

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

DATE March 20, 1981

PURCHASE ORDER No. P.R.-10507

Clear Ambient Service
G. P. O. Box 1675
San Juan, P.R. 00936

SEND INVOICE IN TRIPLICATE TO:

07800/$80.00

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO

Owens-Illinois of P.R.
Road 690, Km. 1.7
Vega Alta, P.R.

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
R U S H	Service performed	O-I, V.A.	N/30 days	☐ DIRECT PAY PERMIT ☐ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Empty degreaser tank		$80.00 LS

Complete 3/20/81

Confirming order. Do not duplicate.

PLANT PURCHASING

Clear Ambient Services Co.
G.P.O. BOX 1675
SAN JUAN, PUERTO RICO 00936
TEL. 788-0905
788-0678

TIME DISTRIBUTION SHEET

Queen Illinois

Vega Alta P.R.

NO. 0342

P.O.

DATE 1-8-81

RE Mantenimiento Planta

LABOR:	CLASSIFICATION	QUANTITY	HOURS	RATE	ACCUM.	TOTAL
	Shofer	1	4	4.95	19.80	
	Ayudante	1	4	4.50	18.00	37.80
EQUIPMENT:	Vac Truck	1	4	45.00		80.00
MATERIAL/ OTHERS:	incluyendo incluido hora de descarga					

RECEIVED FEB 12 1981

REMARKS: Salida CA - 9:00 A.M
Llegada Planta - 10:00 AM
Salida Planta - 10:30 AM
Llegada CA - 12 P.M

FOREMAN [signature]
CLEAR AMBIENT

APPROVED BY: [signature]
CLIENT 1/8/81

...e cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

20280 IN EMPT
5580
PO 115

PART A: DOCUMENT NO. 101 P. R.

GENERATOR NAME: OWENS ILLINOIS DE P.R. Inc.	PHONE: 883-5800	EPA ID NO. PRD090490028
SITE ADDRESS: Km. 1.7 Rt. 690 - Vega Alta, P.R. 00762		
TRANSPORTER NO. 1: SERVICIOS CARBAREON	PHONE: 722-1476	PRD091018 62
SITE ADDRESS: # 416 Cobian's Plaza, Ave. Ponce de Leon Santurce, P.R. 00909		
TRANSPORTER NO. 2: NONE	PHONE:	
SITE ADDRESS:		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: SERVICIOS CARBAREON	PHONE:	
SITE ADDRESS: Peñuelas, P.R.		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO.———— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/E WASTE
1	Waste Sodium Hydroxide Solution with 3%	corrosive	1824	Liq.	5500	lbs.			C	D0
2	Perchloroethylene									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE: [signature]	TITLE: Purchasing Agent	DATE SHIPPED: 08 MO 25 DAY 81 YR	EXPECTED ARRIVAL DATE: 08 MO 25 DAY 8
TRANSPORTER NO. 1 SIGNATURE: "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest." [signature]	TRANSPORTER NO. 1 VEHICLE ID. NO. LICENSE 1938-HP		DATE RECEIVED: MO DAY

TEAR AT THIS PERFORATION

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

12147
PO 12147

PART A: DOCUMENT NO. 102 P. R.

GENERATOR NAME: Owens Illinois de P.R. Inc.	PHONE: 883-5800	EPA ID NO.: P R D 0 9 0 4 9 0 2 8 5
SITE ADDRESS: Carr. 690 1.7 km. Vega Alta, P.R. 00762		
TRANSPORTER NO.1: SERVICIOS CARBAREON	PHONE: 722-1476	P R 0 0 9 1 0 1 8 6 2 2
SITE ADDRESS: #416 Cobian's Plaza, Ave. Ponce de León Santurce, P.R. 00909		
TRANSPORTER NO.2: NONE	PHONE:	
SITE ADDRESS:		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: SERVICIOS CARBAREON	PHONE: 836-2058	P R 0 0 0 0 6 3 4 8
SITE ADDRESS: Peñuelas, P.R.		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodium Hydroxide Solution	Corrosive	1824	Liq.	15100	lbs	11	012	d	0102
2										
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify the the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE	TITLE: Purchasing Agent	DATE SHIPPED: 10 MO 29 DAY 83 YR	EXPECTED ARRIVAL DATE: 10 MO 29 DAY 83 YR
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO. License Pla.	81 HLP	DATE RECEIVED: MO DAY YR

TEAR AT THIS PERFORATION

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O-I REQUISITION NO.
	D. Irizarry	I-0872

Services - 1982

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.–
	January 22, 1982	12624

39510/$608.00 (est.)

SERVICIOS CARBAREON INC.
SUITE 416 COBIANS PLAZA
AVE. PONCE DE LEON
SANTURCE, PR 00909

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

SHIP TO
OWENS ILLINOIS OF PR
CARR. 690 KM. 1.7
VEGA ALTA, PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
L ii *1-22-82	Servicio	Vega Alta	Net 30 days	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		To cover transportation and disposal of waste sodioum hydroxide solution corrosive/liq. - EPA WASTE TYPE D002 6680 lbs.		
		Disposal .05 per pound Transportation Peñuelas from Vega Alta 2.25 per mile	608.00	(est.)

2-3-82

SERVICIOS CARBAREON, INC.

SUITE 416 COBIAN'S PLAZA
AVE. PONCE DE LEON 1607
SATURCE, P.R. 00909
Tels. 722-1470 / 723-3528
725-5561

INVOICE

0624

BILL TO [illegible] JOB LOCATION [illegible]

P O Box 387

[illegible], PR 00762

TERMS: NET 30. A FINANCE CHARGE OF 1 1/2% PER MONTH WILL BE CHARGED ON BALANCE OVER 30 DAYS

DATE	P.O. NO.	WORK ORDER	DATE OF WORK
Jan 26 1982	13694	1324	Jan 22 1982

QUANTITY	DESCRIPTION	PRICE	AMOUNT
	TO CHARGE YOUR ACCOUNT FOR TRANSPORTATION AND DISPOSAL OF INDUSTRIAL WASTES:		
	Transportation: 148 miles x $2.25	$ 333 00	
	Disposal: 6680 lbs x $0.05	334 00	
			$667 00
	TERMS: 2%-10; N/30. 1½% Interest Charge after 30 days.		
		TOTAL AMOUNT	$667 00

PLEASE PAY FROM THIS INVOICE. NO OTHER STATEMENT WILL BE RENDERED

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A: DOCUMENT NO. 103 P. R.

GENERATOR NAME: Owens Illinois de P.R. Inc.	PHONE: 883-5800	EPA ID NO.: PRD090400285
SITE ADDRESS: Km. 1.7 Rt. 690 - Vega Alta, P.R. 00762		
TRANSPORTER NO.1: Servicios Carbareon	PHONE: 722-1476	PRD091018622
SITE ADDRESS: 416 Cobian's Plaza, Ave. Ponce de Leon, Santurce, P.R. 00909		
TRANSPORTER NO.2: NONE	PHONE:	
SITE ADDRESS:		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: Servicios Carbereon	PHONE:	PRD091018622
SITE ADDRESS: Peñuelas, P.R.		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodioum Hydroxide Solution with 3%	Corrosive	1824	Liq	6680	lbs			C	D01C2
2	Perchloroethylene									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE: [signature] TITLE: Ingeniero de Planta Purchasing Agent DATE SHIPPED: 01 MO 22 DAY 82 YR EXPECTED ARRIVAL DATE: 01 MO 22 DAY 82 YR

TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest." TRANSPORTER NO. 1 VEHICLE ID. NO. DATE RECEIVED MO DAY YR

[signature] TEAR AT THIS PERFORATION

GEN EPA ID #

TO BE FILLED OUT BY TRANSPORTER

PART B

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment." [signature] DATE DELIVERED MO DAY YR

TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shippment I have accepted for transport conforms with the description on this manifest." TRANSPORTER NO. 2 VEHICLE ID. NO. DATE RECEIVED MO DAY YR

TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment." MO DAY YR

TO BE FILLED OUT BY TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD: 1 2 3 4 5 6

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form" DATE RECEIVED MO DAY YR

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8992

DOCUMENT NO. P. R.

10/80

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7133-450	D. Irizarry	I-0895

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.–
	June 21, 1982	13394

SERVICIOS CARRAREON
SUITE 416 COBIAN'S PLAZA
AVE. PONCE DE LEON
SANJUREE, PR 00909

SEND INVOICE IN TRIPLICATE TO
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

39510/$608.00 est.

SHIP TO
OWENS-ILLINOIS DE PR
CARR. 690 KM. 1.7
VEGA ALTA, PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
6-21-82	Your truck	Vega Alta	Net 30 days	☐ DIRECT PAY PERMIT ☑ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Transportation and siposal of waste sodium hydroxide solution corrosive liquid - EPA Waste Typp D002.	$608.00	est.
		Aproximately 7100		

RECEIVED
DATE 6-24-82

Confirming order. Do not duplicate.

6-24-82

PLANT PURCHASING

Firm Delivery
Ponce, PR 00731
Tel. 836-2058
836-1678

SERVICIOS CARBAREON, INC.

Carretera 385 Km. 3.5
Bo. Tallaboa
Peñuelas, Puerto Rico 00724

Nº 1884

INFORME DIARIO DE SERVICIO

Fecha 21 de junio de 1982
DIA MES AÑO

NOMBRE Owens Illinois de P.R., Inc.

DIRECCION Vega Alta P.O. BOX 387, P.R. 00762

DESCRIPCION DEL SERVICIO: Acarreo y dipposición de _____ libras de desperdicios químicos.

Horario _____

Núm. de Empleados _____

Supervisión _____ Total Horas _____

EQUIPO:

1 Camión con Tanque Aspirador

_____ Camión Tanque

_____ Camión Tumba

_____ Camión y Plataforma

_____ Traxcavator

_____ Bombas

_____ Otros

Observaciones: P.O.# [illegible]

Att: [illegible] Sal. Marial

José V. Morales

Felipe Vega

COPIA CLIENTE

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. 005 P. R.

GENERATOR NAME: OWENS-ILLINOIS DE PUERTO RICO	PHONE: 883-5800	EPA ID NO: PRD090490285
SITE ADDRESS: CARR. 690 KM. 1.7 VEGA ALTA, PUERTO RICO		
TRANSPORTER NO.1: SERVICIOS CARBAREON, INC.	PHONE:	PRD091018622
SITE ADDRESS: #416 COBIAN'S PLAZA AVE. PONCE DE LEON SANTURCE, PR 00909		
TRANSPORTER NO.2: NONE	PHONE:	~~PRD090490285~~
SITE ADDRESS: CARR. 385 KM. 3.5 PEÑUELAS, PR 00724		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: SERVICIOS CARBAREON	PHONE: 836-2058	PRD090490285
SITE ADDRESS:		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodium Hydroxide Solution with 3%	corrosive	1824	Lig.	2360	lbs.	1	02	C	D002
2	Percholoreethylen									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE	TITLE	DATE SHIPPED (MO DAY YR)	EXPECTED ARRIVAL DATE (MO DAY YR)
[signature]	Purchasing Agent	06 21 82	06 21 82

TRANSPORTER NO. 1 SIGNATURE	TRANSPORTER NO. 1 VEHICLE ID. NO.	DATE RECEIVED (MO DAY YR)
[signature] "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	Lic. Plate 1938 HP	

TEAR AT THIS PERFORATION

PART B

GEN EPA ID# PRD090490285

TRANSPORTER

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment." [signature]		DATE DELIVERED (MO DAY YR)
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID. NO.	DATE RECEIVED (MO DAY YR)
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		(MO DAY YR)

TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD

1		2	
3		4	
5		6	

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this form."		DATE RECEIVED (MO DAY YR)

In case of emergency or spill immediately call the Environmental Quality Board (809) 725 8992

DOCUMENT NO. 005 P. R.

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	REQUISITION NO.
40-7133-650	D. Irizarry	

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER

DATE

August 13, 1982

PURCHASE ORDER No. P.R.- 13711

SERVICIOS CARBARFON
SUITE 416 COBIAN'S PLAZA
AVE. PONCE DE LEON
SANTURCE, PR 00909

SHIP TO

OWENS-ILLINOIS DE PUERTO RICO
CARR. 690 KM. 1.7
VEGA ALTA, PUERTO RICO 00762

SEND INVOICE IN TRIPLICATE TO:

OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

39510/$608.00 est.

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
8-13-82	Servicio	Vega Alta	Neto 30 dias	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Transportation and disposal of waste sodium hydroxide solution corrosive liquid - EPA Waste Type D002.	$608.00	est.
		Approximately 7100		

Complete
8-13-82

FORM 84-1073

PLANT PURCHASING

Firm Delivery
Ponce, PR 00731
Tel. 836-2058
836-1678

SERVICIOS CARBAREON, INC.

Carretera 385 Km. 3.5
Bo. Tallaboa
Peñuelas, Puerto Rico 00724

Nº 1935

INFORME DIARIO DE SERVICIO

Fecha 13 de agosto de 1982
DIA - MES AÑO

NOMBRE Owens Illinois de P.R., Inc.

DIRECCION P.O. BOX 387 Vega Alta, P.R. 00762

DESCRIPCION DEL SERVICIO: Acarreo y disposición de _____ galones de desperdicios industriales.

Horario_____

Núm. de Empleados_____

Supervisión_____ Total Horas_____

EQUIPO:

1 Camión con Tanque Aspirador Cap. 2,500 gld.

_____ Camión Tanque

_____ Camión Tumba

_____ Camión y Plataforma

_____ Traxcavator

_____ Bombas

_____ Otros

Recibidos
Paid T. Rivera

Observaciones: P.O.#

Personal:
José Rodríguez
Atta. Sra. Sol Muriel
Humberto Vargas

COPIA CLIENTE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. 106 P. R.

GENERATOR NAME: OWENS-ILLINOIS DE PUERTO RICO	PHONE: 883-5800	EPA ID NO.: PRD090499285
SITE ADDRESS: CARR. 690 KM. 1.7 VEGA ALTA, PUERTO RICO		
TRANSPORTER NO.1: SERVICIOS CARBAREON, INC.	PHONE:	PRD091018622
SITE ADDRESS: 416 COBIA'S PLAZA AVE. PONCE DE LEON SANTURCE, PR 00909		
TRANSPORTER NO 2: NONE	PHONE:	
SITE ADDRESS: CARR. 385 KM. 3.5 PEÑUELAS, PR 00724		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: SERVICIOS CARBAREON	PHONE: 836-2058	PRD090490285
SITE ADDRESS		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO.———— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EOB EPA HAZ CODE	EOB/EPA WASTE TYPE
1	Waste Sodioum Hydroxide Solution with 3%	corrosive	1824	Liq			1	02	C	D002
2	Percholoreethylen									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE	TITLE	DATE SHIPPED (MO / DAY / YR)	EXPECTED ARRIVAL DATE (MO / DAY / YR)
	Purchasing Agent	08 / 16 / 82	08 / 13 / 82

TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO	DATE RECEIVED (MO / DAY / YR)
	Lic. Plate 193381HP	

TEAR AT THIS PERFORATION

PART B

GEN EPA ID# PRD090490285

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment"		DATE DELIVERED
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID. NO	DATE RECEIVED
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment"		

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD: 1 | 2 | 3 | 4 | 5 | 6

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this form."	DATE RECEIVED

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8930

DOCUMENT NO. P. R.

10/80

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7133-450	D. Irizarry	I-0914

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.–
	October 28, 1982	14194

SERVICIOS CARIBAREON
SUITE 416 COBIANS PLAZA
AVE. PONCE DE LEON
SANTURCE, PR 00909

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

39510/$608.00 est.

SHIP TO
OWENS-ILLINOIS DE PR
CARR. 690 KM. 1.1
VEGA ALTA, PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
10-28-82	Service O-I Premises	Vega Alta	Net 30 days	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Transportation and disposal of waste sodium hydroxide solution corrosive liquid EPA Waste Type D002		
		Approximately 7100		

COMPLETED

10-28-82 Confirming order. Do not duplicate.

Firm Delivery
Ponce, PR 00731
Tel. 836-2058
836-1678

SERVICIOS CARBAREON, INC.

Carretera 385 Km. 3.5
Bo. Tallaboa
Peñuelas, Puerto Rico 00724

Nº 2001

INFORME DIARIO DE SERVICIO

Fecha 25 de octubre 19 82
DIA MES AÑO

NOMBRE OWENS-ILLINOIS DE PUERTO RICO

DIRECCION VEGA ALTA

DESCRIPCION DEL SERVICIO: Acarreo y disposición de 7,100 libras de desperdicios industriales.

Horario_____

Núm. de Empleados_____

Supervisión_____ Total Horas_____

EQUIPO:

1 Camión con Tanque Aspirador [2,500 gals.]

____ Camión Tanque

____ Camión Tumba

____ Camión y Plataforma

____ Traxcavator

____ Bombas

____ Otros

Observaciones: P.O. #

Att: Sal Muriel

Personal:

COPIA CLIENTE

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

DOCUMENT NO. 007 P. R.

PART A

GENERATOR NAME: Owens-Illinois de P.R., Inc.	PHONE: 883-5800	EPA ID NO.: PR D 0 90 49 0 2 85
SITE ADDRESS: Carr. 690 Km. 1.7 Vega Alta, P.R. 00767		
TRANSPORTER NO.1: Servicios Carbareón, Inc.	PHONE: 836-2058	PR D 0 9 1 0 1 8 6 2 2
SITE ADDRESS: Carr. 385 Km. 3.5 Bo. Tallaboa, Peñuelas, P.R. 00724		
TRANSPORTER NO.2	PHONE	
SITE ADDRESS		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: Servicios Carbareón, Inc.	PHONE: 836-2058	PR D 0 9 1 0 1 8 6 2 2
SITE ADDRESS: Carr. 385 Km. 3.5 Bo. Tallaboa Peñuelas, P.R. 00724		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO.———— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EOB EPA HAZ CODE	EOB/EPA WASTE TYPE
1	Waste Sodium	Corrosive Material	UN 1824	Liq.	7240	Lbs		02	C	D002
2	Hydroxide Solution with 3% Perchloro-									
3	ethylene									
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE: [signature]	TITLE: Purchasing Agent	DATE SHIPPED: 10 (MO) 25 (DAY) 82 (YR)	EXPECTED ARRIVAL DATE: 10 (MO) 25 (DAY) 82 (YR)
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest." [signature]	TRANSPORTER NO. 1 VEHICLE ID. NO: 1938-HP		DATE RECEIVED: 10 (MO) 25 (DAY) 82 (YR)

TEAR AT THIS PERFORATION

GEN EPA ID# PR D 0 9 0 4 9 0 2 8 5

PART B

TRANSPORTER

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment." [signature]		DATE DELIVERED: 10 (MO) 25 (DAY) 82 (YR)
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID. NO	DATE RECEIVED: (MO) (DAY) (YR)
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		(MO) (DAY) (YR)

TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD: 1 T 3 1 2 3 4 5 6

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted in this form." [signature]

DATE RECEIVED: 10 (MO) 25 (DAY) 82 (YR)

In case of emergency or spill immediately call the Environmental Quality Board (800) 715-2392

DOCUMENT NO 007 P. R.

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

SERVICIOS CARBAREON
DEC 21 1992
P.R. RECEIVED

PART A: DOCUMENT NO. 008

GENERATOR NAME	OWENS ILLINOIS DE P.R. INC.	PHONE	883-5800
SITE ADDRESS	Km. 1.7 Rt. 690 - Vega Alta, P.R. 00762	EPA ID NO.	PRID0190140100121815
TRANSPORTER NO 1	Servicios Carbareon	PHONE	722-1476
SITE ADDRESS	416 Cobian's Plaza Ave. Ponce De León Santurce, P.R. 00909		PRID0191100116121212
TRANSPORTER NO 2	N/A	PHONE	
SITE ADDRESS			
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY	Servicios Carbareon	PHONE	
SITE ADDRESS	Peñuelas, P.R.		PRID0191101816212

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodium Hydroxide Solution with 3%	Corrosive	1824	Liq.	12900	lb	1	02	C	D0002
2	Perchloroethylene									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE	TITLE: INGENIERO DE PLANTA	DATE SHIPPED: 12 (MO.) 15 (DAY) 82 (YR.)	EXPECTED ARRIVAL DATE: 12 (MO.) 15 (DAY) 82 (YR.)
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO. 1191311P1		DATE RECEIVED: 12 (MO.) 15 (DAY) 82 (YR.)

TEAR AT THIS PERFORATION

GEN EPA ID# PRID0190140100121815

PART B

TRANSPORTER

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE DELIVERED: 12 (MO.) 15 (DAY) 82 (YR.)
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID NO. N/A	DATE RECEIVED: ___ (MO.) ___ (DAY) ___ (YR.)
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		___ (MO.) ___ (DAY) ___ (YR.)

TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD: 1 T, 3 I

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form"

DATE RECEIVED: 12 (MO.) 15 (DAY) 82 (YR.)

In case of emergency or spill immediately call the Environmental Quality Board (809) 725 8942

DOCUMENT NO. 008 P. R.

10/80

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O-I REQUISITION NO.
40-7133-450	J. Pérez del Valle	3-24-83

PURCHASE ORDER

Enero 1983

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.–
	March 29, 1983	15240

SERVICIOS CARBAREON? INC.
SUITE 416-COBIAN'S PLAZA
AVE. PONCE DE LEON
SANTURCE, PR 00909

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

39510/$1,461.60 est.

SHIP TO
OWENS-ILLINOIS DE PR
CARR. 690 KM. 1.1
VEGA ALTA, PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
3-28-83	Service	Vega Alta	Net 30 days	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		To cover charges on transportation and disposal of waste sodium hydroside solution corrosive liquid EPA Waste Type D002 Aproximately 7100 lbs.	$1,461.60	
		Transportation	333.00	

CONFIRMING ORDER. DO NOT DUPLICATE.

4-14-83

PLANT PURCHASING

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A: DOCUMENT NO. 010 P. R.

GENERATOR NAME: OWENS ILLINOIS DE PUERTO RICO, INC.	PHONE: 883-5800	EPA ID NO: PRD009041012
SITE ADDRESS: STATE ROAD 690 KM 1.1 VEGA ALTA, PUERTO RICO 00762		
TRANSPORTER NO. 1: SERVICIOS CARBAREON	PHONE: 722-1476	PRD009110186
SITE ADDRESS: 416 COBIAN'S PLAZA AVE. PONCE DE LEON, SANTURCE, P.R. 00909		
TRANSPORTER NO 2: N/A	PHONE:	PRD009110186
SITE ADDRESS:		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: SERVICIOS CARBAREON	PHONE:	
SITE ADDRESS: PEÑUELAS, PUERTO RICO		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. _____ OF A TOTAL OF ____ THE FIRST MANIFEST DOCUMENT NO. IS P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EPA HAZ CODE	EPA WAST
1	WASTE SODIUM HYDROXIDE SOLUTION WITH 3%	CORROSIVE	1824		112118 10		11	012	C	D002
2	PERCHLORETHYLENE									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHIC DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge

GENERATOR'S SIGNATURE: By Kenneth Higgins	TITLE: Plant Engineer	DATE SHIPPED: 03 31 83 (MO. DAY YR.)	EXPECTED ARRIVAL DATE: 03 31 (MO. DAY)
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted is as described on this manifest." Carlos Francisco Bartolomei	TRANSPORTER NO. 1 VEHICLE ID NO: 1 0 3 8 H P 1		DATE RECEIVED: 03 31 (MO. DAY)

TEAR AT THIS PERFORATION

TO BE FILLED OUT BY TRANSPORTER

PART B GEN EPA ID#

TRANSPORTER NO 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment." Carlos Fco. Itolomei		DATE DELIVERED: 03 31 (MO. DAY)
TRANSPORTER NO 2 SIGNATURE "To the best of my knowledge the contents of this shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID NO: 1 1 9 1 3 1 8 H P 1	DATE RECEIVED: 03 31 (MO. DAY)
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		(MO. DAY)

TO BE FILLED OUT BY TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCE BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD

1	T	3	1	2	
3				4	
5				6	

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form."

DATE RECEIVED: 03 31 (MO. DAY)

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8992

DOCUMENT NO. 010 P. R.

10/80

...sheet for
...ons
...TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A: DOCUMENT NO. 009 P. R.

GENERATOR NAME: OWENS ILLINOIS DE PR. INC	PHONE: 883-5800	EPA ID NO.: PRD090400285
SITE ADDRESS: STATE ROAD 690 KM 1.1 VEGA ALTA, PUERTO RICO 0076		
TRANSPORTER NO. 1: SERVICIOS CARBAREON	PHONE: 722-1476	PRD091018622
SITE ADDRESS: 416 Cobian's Plaza Ave. Ponce de León Santurce, PR 00909		
TRANSPORTER NO. 2: N/A	PHONE:	
SITE ADDRESS:		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: SERVICIOS CARBAREON	PHONE:	PRD091018622
SITE ADDRESS: PEÑUELAS, PUERTO RICO		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/E WASTE
1	WASTE SODIOUM HYDROXIDE SOLUTION WITH 3%	CORROSIVE	1824	LIQ	2500	lb.	1	02	C	00
2	PERCHLORETHYLENE									
3										
4										
5										
6										

Void Edge 010

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify the the above named materials are properly classified, described, marked and labelled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE	TITLE	DATE SHIPPED	EXPECTED ARRIVAL DATE
Kenneth Higgins	PLANT ENGINEER	03 81 83 (MO. DAY YR)	03 31 8 (MO. DAY)

TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO. 1938bp	DATE RECEIVED 03 31 8 (MO. DAY)

TEAR AT THIS PERFORATION

TO BE FILLED OUT BY TRANSPORTER

PART B GEN EPA ID# PRD090400285

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE DELIVERED (MO. DAY)
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shippment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID. NO.	DATE RECEIVED (MO. DAY)
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		(MO. DAY)

TO BE FILLED OUT BY TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD: 1 2 3 4 5 6

TRATMENT STORAGE OR DISPONSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conform with the description on this manifest except those discrepancies noted on this form" DATE RECEIVED (MO. DAY)

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8992

DOCUMENT NO. P. R.

10/80

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	REQUISITION NO.
40-7133-459-	J. Pérez del Valle	-- 0455

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.-
	July 5, 1983	15840

SERVICIOS CARRAREON, INC.
SUITE 416 COBIAN'S PLAZA
AVE PRINCE DE LEON
SANTURCE, PR 00909

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

39510/$1,461.60 est.

SHIP TO
OWENS-ILLINOIS DE PR
CARR 690 KM 1.1
VEGA ALTA PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
6-30-83	Service	Vega Alta	Net 30 days	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Transportation and dipposal of waste sodium hydroside solution corrosive liquid EPA waste type D002 (approximately 7100 lbs.)	1,461.60 est.	

Completed 7/7/83 Alvins

7-11-83 CONFIRMING ORDER. DO NOT DUPLICATE.

Peter Lucas

PLANT PURCHASING

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. 011 P. R.

GENERATOR NAME: Owens Illinois de Puerto Rico Inc.	PHONE: 883-5800	EPA ID NO.: P R D 0 0 9 0 4 0 0 2 8 5
SITE ADDRESS: State Road 690 KM 1.1 Vega Alta, Puerto Rico 00762		
TRANSPORTER NO.1: Servicios Carbareon	PHONE	P R D 0 0 9 1 1 0 1 1 8 6 2 2
SITE ADDRESS: 416 Cobian's Plaza Ave. Ponce De Leon, Santurce, P.R. 00909		
TRANSPORTER NO.2: N/A	PHONE	
SITE ADDRESS		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: Servicios Carbareon	PHONE	P R D 0 0 9 1 1 0 1 1 8 6 2 2
SITE ADDRESS: Peñuelas, Puerto Rico		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS P. R.

GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodium Hydroxide solution with 3%	Corrosive	1824	Liq.	1 2 1 1 8 0	Lbs.	1 1	0 2	C	0 1 0 1 2
2	Perchlorethylene									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR SIGNATURE: S. Kenneth Higgins	TITLE: Plant Engineer	DATE SHIPPED: 10 (MO) 17 (DAY) 16 (YR) 83	EXPECTED ARRIVAL DATE: 10 (MO) 17 (DAY) 15 (YR) 83
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO. 1 1 9 3 8 H P 1		DATE RECEIVED: 10 (MO) 17 (DAY) 16 (YR) 83

TEAR AT THIS PERFORATION

TRANSPORTER

PART B

GEN EPA ID# P R D 0 0 9 0 4 0 0 2 8 5

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	DATE DELIVERED: (MO) (DAY) (YR)
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of this shipment I have accepted for transport conforms with the description on this manifest." TRANSPORTER NO. 2 VEHICLE ID NO.	DATE RECEIVED: (MO) (DAY) (YR)
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."	(MO) (DAY) (YR)

TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS	HANDLING METHOD: 1 2 3 4 5 6
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this face."	DATE RECEIVED: (MO) (DAY) (YR)

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8892

DOCUMENT NO. P. R.

10/80

INTERNAL INSTRUCTIONS

CHARGE ACCOUNT	REQUISITIONER & LOCATION	O - I REQUISITION NO.
40-7133-450	J. Pérez del Valle	JP-199

PURCHASE ORDER

OWENS-ILLINOIS
DE PUERTO RICO

VENDOR NUMBER	DATE	PURCHASE ORDER No. P.R.-
	September 28, 1983	16329

SERVICIOS CARBAREON, INC.
SUITE 416 COBIANS PLAZA
AVE. PONCE DE LEON
SANTURCE, PR 00909

SEND INVOICE IN TRIPLICATE TO:
OWENS-ILLINOIS
DE PUERTO RICO
P. O. BOX 387
VEGA ALTA, PUERTO RICO 00762

39510/$1,461.60 est.

SHIP TO
OWENS-ILLINOIS DE PR
CARR 690 KM 1.1
VEGA ALTA PR 00762

DATE REQUIRED	SHIP VIA	F.O.B.	TERMS	DO NOT CHARGE SALES TAX BECAUSE
9-28-83	Service	Vega Alta	Net 30 days	☐ DIRECT PAY PERMIT ☒ TAX EXEMPT

ITEM	QUANTITY	DESCRIPTION	PRICE	AMOUNT
		Transportation and disposal of Waste Sodium Hydroside Solution Corrosive Liquid EPA Waste Type D002 (Approximately 7100 lb.)		

COMPLETED
DATE 10-19-83

9-29-83

FORM 64 1/75

PLANT PURCHASING

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. 012 P. R.

GENERATOR NAME: Owens Illinois de Puerto Rico Inc.	PHONE: 883-5800	EPA ID NO.: P R D 0 0 4 0 0 2 8 5
SITE ADDRESS: State Road 690 Km 1.1 Vega Alta, Puerto Rico 00762		
TRANSPORTER NO.1: Servicios Carbareon	PHONE:	P R D 0 9 1 0 1 1 8 6 2 2
SITE ADDRESS: 416 Cobizo's Plaza Ave. Ponce De León, Santurce, P.R. 00909		
TRANSPORTER NO.2: N/A	PHONE:	P R D 0 9 1 0 1 1 8 6 2 2
SITE ADDRESS:		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: Servicios Carbareon	PHONE:	
SITE ADDRESS: Peñuelas, Puerto Rico		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO. ———— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS: P. R.

GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodium Hydroxide solution with 3%	Corrosive	1824	Liq.	12110	bs.	11	12	C	D 0 0 2
2	Perchlorethylene									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge.

GENERATOR'S SIGNATURE	TITLE	DATE SHIPPED (MO DAY YR)	EXPECTED ARRIVAL DATE (MO DAY YR)
K. Kenneth Higgins	Plant Engineer	10 19 | 12 18 | 88	10 19 | 2 18 | 88

TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest." — TRANSPORTER NO. 1 VEHICLE ID. NO.: 1 19 13 18 18 P 1 — DATE RECEIVED (MO DAY YR): 10 19 \| 12 18 \| 88

TEAR AT THIS PERFORATION

PART B

GEN EPA ID#: P R D 0 0 4 0 0 2 8 5

TRANSPORTER

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of the shipment." — DATE DELIVERED (MO DAY YR)

TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest." — TRANSPORTER NO. 2 VEHICLE ID. NO. — DATE RECEIVED (MO DAY YR)

TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment." (MO DAY YR)

TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD

1		2			
3		4			
5		6			

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this form." — DATE RECEIVED (MO DAY YR)

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8282

DOCUMENT NO. P. R.

10/80

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. 013 P. R.

GENERATOR NAME: Owens Illinois de Puerto Rico, Inc.	PHONE: 883-5800	EPA ID NO.: P R D 0 9 0 4 0 0 2 8 5
SITE ADDRESS: State Road 690 Km. 1.1, Vega Alta, Puerto Rico 00762		
TRANSPORTER NO.1: Servicios Carbareón, Inc.	PHONE: 836-2058	P R D 0 9 1 0 1 8 6 2 2
SITE ADDRESS: Road 385 Km. 3.5 Bo. Tallaboa, Peñuelas, P.R. 00724		
TRANSPORTER NO.2	PHONE	
SITE ADDRESS		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY: Servicios Carbareón, Inc.	PHONE: 836-2058	P R D 0 9 1 0 1 8 6 2 2
SITE ADDRESS: Road 385 Km. 3.5 Bo. Tallaboa, Peñuelas, P.R. 00724		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EQB EPA HAZ CODE	EQB/EPA WASTE TYPE
1	Waste Sodium Hydroxide Soln./3%	Corrosive Material	UN1824	1	5850	3	01	02	C	D002
2	Perchloroethylene									
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge

GENERATOR'S SIGNATURE: S. Kenneth Higgins	TITLE: Plant Engineer	DATE SHIPPED: 11 MO. 25 DAY 83 YR.	EXPECTED ARRIVAL DATE: 11 MO. 25 DAY 83 YR.
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO.: 1938-HP		DATE RECEIVED: 11 MO. 25 DAY 83 YR.

Edwin Burgos

TEAR AT THIS PERFORATION

TO BE FILLED OUT BY TRANSPORTER

PART B Edwin Burgos GEN EPA ID# P R D 0 9 0 4 0 0 2 8 5

TRANSPORTER NO 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE DELIVERED: 11 MO. 25 DAY 83 YR.
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID. NO.: N/A	DATE RECEIVED: MO. DAY YR.
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		MO. DAY YR.

TO BE FILLED OUT BY TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS

HANDLING METHOD: 1 T 2 / 3 4 5 6

TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this form."

DATE RECEIVED: 11 MO. 25 DAY 83 YR.

In case of emergency or spill immediately call the Environmental Quality Board (809) 725-8582

DOCUMENT NO. 013 P. R.

10/80

r sheet for
structions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. P. R.

GENERATOR NAME	PHONE	EPA ID NO.
SITE ADDRESS		
TRANSPORTER NO.1	PHONE	
SITE ADDRESS		
TRANSPORTER NO.2	PHONE	
SITE ADDRESS		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY	PHONE	
SITE ADDRESS		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO ———— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EOB EPA HAZ CODE	EOB/EPA WASTE TYPE
1										
2										
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge

GENERATOR'S SIGNATURE	TITLE	DATE SHIPPED MO DAY YR	EXPECTED ARRIVAL DATE MO DAY YR
TRANSPORTER NO 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO.		DATE RECEIVED MO DAY YR

TEAR AT THIS PERFORATION

PART B

GEN EPA ID#

TO BE FILLED OUT BY TRANSPORTER

TRANSPORTER NO 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE DELIVERED MO DAY YR
TRANSPORTER NO 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO 2 VEHICLE ID NO	DATE RECEIVED MO DAY YR
TRANSPORTER NO 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		MO DAY YR

TO BE FILLED OUT BY TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS		HANDLING METHOD 1 2 3 4 5 6
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this form."		DATE RECEIVED MO DAY YR

In case of emergency or spill immediately call the Environmental Quality Board (809) 725 8392

DOCUMENT NO P. R.

10/80

See cover sheet for instructions
PLEASE TYPE

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
HAZARDOUS WASTE MANIFEST

PART A

DOCUMENT NO. P. R.

GENERATOR NAME	PHONE	EPA ID NO
SITE ADDRESS		
TRANSPORTER NO. 1	PHONE	
SITE ADDRESS		
TRANSPORTER NO. 2	PHONE	
SITE ADDRESS		
TREATMENT, STORAGE OR DISPOSAL (TSD) FACILITY	PHONE	
SITE ADDRESS		

IF MORE THAN TWO TRANSPORTERS ARE TO BE UTILIZED, FILL OUT THE FOLLOWING AS APPROPIATE

THIS FORM IS NO ——— OF A TOTAL OF ——— THE FIRST MANIFEST DOCUMENT NO. IS. P. R.

TO BE FILLED OUT BY GENERATOR

	PROPER US DOT SHIPPING NAME	US DOT HAZARD CLASS	UN NUMBER	FORM	NET QUANTITY	UNITS	CONTAINERS NO.	CONTAINERS TYPE	EOB EPA HAZ CODE	EOB/EPA WASTE TYPE
1										
2										
3										
4										
5										
6										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION (i.e. IDENTIFICATION OF ADDITIONAL WASTES INCLUDED IN SHIPMENT OF A NONHAZARDOUS NATURE WHICH DO NOT HAVE TO BE MANIFESTED)

GENERATOR'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the Commonwealth of P.R. The waste described above were consigned to the Transporter named. The Treatment, Storage or Disposal Facility can and will accept the shipment of hazardous waste, and has a valid permit to do so. I certify that the foregoing is true and correct to the best of my knowledge

GENERATOR'S SIGNATURE	TITLE	DATE SHIPPED MO. DAY YR	EXPECTED ARRIVAL DATE MO. DAY YR
TRANSPORTER NO. 1 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 1 VEHICLE ID. NO.		DATE RECEIVED MO. DAY YR

TEAR AT THIS PERFORATION

PART B

GEN EPA ID#

TO BE FILLED OUT BY TRANSPORTER

TRANSPORTER NO. 1 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		DATE DELIVERED MO. DAY YR
TRANSPORTER NO. 2 SIGNATURE "To the best of my knowledge the contents of the shipment I have accepted for transport conforms with the description on this manifest."	TRANSPORTER NO. 2 VEHICLE ID NO.	DATE RECEIVED MO. DAY YR
TRANSPORTER NO. 2 SIGNATURE "I certify that I have not tampered with or materially altered the contents of this shipment."		MO. DAY YR

TO BE FILLED OUT BY TSD FACILITY

TREATMENT STORAGE OR DISPOSAL FACILITY INDICATION OF ANY DIFFERENCES BETWEEN MANIFEST AND SHIPMENT OR LISTING OF REASONS FOR AND DISPOSITION OF REJECTED MATERIALS	HANDLING METHOD 1 2 3 4 5 6
TREATMENT STORAGE OR DISPOSAL FACILITY SIGNATURE "Upon visual inspection, I certify that the contents of this shipment conforms with the description on this manifest except those discrepancies noted on this form."	DATE RECEIVED MO. DAY YR

In case of emergency or spill immediately call the Environmental Quality Board (809) 725 8942

DOCUMENT NO. P. R.

10/80

PS Form 3811, July 1992

● SENDER: Complete **Items 1, 2, 3, and 4.**
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

1. The following service is requested (check one).
   - ☒ Show to whom and date delivered ..... ____¢
   - ☐ Show to whom, date, and address of delivery ..... ____¢
2. ☐ **RESTRICTED DELIVERY** ..... ____¢
   (The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL $____

3. ARTICLE ADDRESSED TO:
   U.S
   26 [illegible]

4. **TYPE OF SERVICE:**
   - ☐ REGISTERED ☐ INSURED
   - ☒ CERTIFIED ☐ COD
   - ☐ EXPRESS MAIL

ARTICLE NUMBER

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE ☐ Addressee ☐ Authorized agent

5. **DATE OF DELIVERY**

POSTMARK *(may be on reverse side)*

6. ADDRESSEE'S ADDRESS *(Only if requested)*

7. **UNABLE TO DELIVER BECAUSE:**

7a. EMPLOYEE'S INITIALS

RETURN RECEIPT

★ GPO: 1992-379-593

EXHIBIT F

March 11, 1997 USEPA's RCRA § 3007 Information Request

MAR 1 1 1997
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Milton Rosa
Plant Engineer
Owens-Illinois de Puerto Rico
P.O. Box 387
Vega Alta, P.R. 00692

Re: RCRA § 3007 Information Request
Owens-Illinois de Puerto Rico
EPA ID # PRD090490285

Dear Mr. Rosa:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Part 6901 et seq.

Pursuant to the provisions of Section 3007 of RCRA, 42 U.S.C. Section 6927, EPA hereby requires that you provide the information requested in Attachment I to this letter using the instructions and definitions included in Attachment II. This information is required to evaluate the compliance of Owens-Illinois de Puerto Rico Used Oil handling Facility.

Please provide the information requested no later than thirty (30) calendar days from receipt of this letter. Requests for additional time must be made within ten (10) calendar days of receipt of this letter, and must be justified. The response must be signed by a responsible official or agent of your company.

The response to the request in the attachment must be mailed to the following address:

Marianna Dominguez
Environmental Engineer
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency
Region 2
290 Broadway, 22nd Floor
New York, New York 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested.

The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret", "proprietary", or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Part 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act, 44 U.S.C. Part 3501 et seq.

Failure to respond in full to this requirement is a violation of RCRA and may result in federal enforcement action pursuant to Section 3008 of RCRA, 42 U.S.C. Section 6928.

If you have any questions about this letter, please call Mr. William K. Sawyer, Esq., of the Office of Regional Counsel, at (212) 637-3196.

Sincerely yours,

Original signed by
Conrad Simon

Conrad Simon, Director
Division of Enforcement and Compliance Assistance

Enclosures

cc: Carmelo Vasquez, Chief
Inspection, Monitoring & Surveillance Section, EQB

Carl Soderberg, Director
Caribbean Environmental Protection Division

bcc: Marianna Dominguez, 2DECA-RCB
Joel Golumbek, 2DECA-RCB
William K. Sawyer, 2ORC-WTSB
Hanna Maciejko, 2DEPP-RPB

ATTACHMENT I

OWENS-ILLINOIS DE PUERTO RICO
Carretera 690 Km. 1.7
Barrio Sabana Hoyo
Vega Alta, P.R. 00692
EPA ID # PRD090490285

A Compliance Evaluation Inspection(CEI) of Owens-Illinois de Puerto Rico regarding its used oil handling and record keeping, was conducted on December 12, 1996, by an EPA authorized representative. As a follow up to the inspection the following information is requested:

Question 1

a) Please describe each activity conducted at Owens-Illinois that has generated solid and/or hazardous wastes (as defined in 40 C.F.R. Part 261) during the time period July 1, 1993, to the present.

b) Please list the solid and/or hazardous wastes generated from each activity indicated in response to Question 1(a), above (i.e., used oils, used oil sludge, used oil filters, spent solvents, brake fluids, transmission fluids, etc.). Please indicate the monthly quantity of each such waste in kilograms generated during the time period July 1, 1993, to the present.

Question 2

a) For each waste indicated in response to Question 1(b), above, that was determined to be a hazardous waste, please indicate the EPA and/or State hazardous waste number and describe how the waste was determined to be a hazardous waste.
For each such waste please include copies of all analytical results and/or documentation used in determining that the waste was a hazardous waste. If generator knowledge of the waste(s) was used to determine that the waste was a hazardous waste, please provide a narrative which details the knowledge employed in such determination.

b) For each waste indicated in response to Question 1(b), above, that was determined not to be a hazardous waste, please describe how the waste was determined not to be a hazardous waste. For each such waste please include copies of all analytical results and/or documentation used in determining that the waste was not a hazardous waste. If generator knowledge of the waste(s) was used to determine that the waste was not a hazardous waste, please provide a narrative which details the knowledge employed in such determination.

Question 3

a) Please indicate the manner in which each waste indicated in response to Question 1(b), above, is stored, treated, or disposed subsequent to its generation.

b) Please indicate, for each waste indicated in response to Question 1(b) above, the date of generation, the date the waste was placed into storage, the duration of storage, and the date of any treatment or disposal during the time period July 1, 1993 to the present.

Question 4

For each hazardous and each non-hazardous waste described in response to Question 2(a) and 2(b) above, please provide copies of any documentation of the treatment or disposal of such waste during the time period July 1, 1993 to the present. If no such documentation is available, please provide the name, address, and representative, if known, for each corporate or municipal entity involved in the disposal of the waste.

Question 5

Please indicate how the used oil is removed in Owens-Illinois de Puerto Rico vehicle engines, i.e., describe how the used oil is drained out of the engines, and what it is drained into. Also describe how the used oil filters are handled including if and how long the used oil is drained from the oil filters, where the used oil is drained to, and how the used oil filters are disposed.

During the December 12 inspection, the inspector found that the used oil filters, without draining of the used oil from them, were collected in a fifty five gallon drum with no label reading "used oil". Please explain what was done with these used oil filters.

Question 6

Please explain how the used oil drained from the Owens-Illinois vehicle engines was collected and disposed of prior to the construction of the current Underground Storage Tank.

Question 7

The inspector observed during the December 12 inspection that a pit dug in the ground and which had a steel frame on top. There was a forklift on top of the steel frame that is used for engine oil changes.

The inspector was informed by an Owens-Illinois representative that the used oil from the engines drains into the pit.

The pit was unlined, of an irregular shape, deep enough to accommodate a man who would be able to reach the used oil reservoir in the engine and empty the used oil from the engine and remove the filter. Please give the date when this current practice of using the pit for the collection of used oil of the Owens-Illinois vehicles started.

Question 8

A used oil burner must determine whether the used oil burned at the facility is a hazardous waste. Has Owens-Illinois de Puerto Rico made a hazardous waste determination of the used oil burned in the oven? Please provide the information requested in Question 2 when answering this Question.

Question 9

Please note that used oil, soil contaminated with used oil and absorbent contaminated with used oil that will not be recycled may be a characteristic hazardous waste. In this situation, you must determine, through testing or knowledge of the chemical constituents of the used oil, soil contaminated with used oil and absorbent contaminated with used oil if they are hazardous wastes so that they are properly disposed. If the materials are identified to be hazardous wastes and cannot be recycled then the materials must be managed in accordance with the hazardous waste management requirements of 40 C.F.R. Parts 260 through 266, 268, 270 and 124. If the used oil is found to be non-hazardous and cannot be recycled then it must be disposed in accordance with the requirements of 40 C.F.R. Parts 257 and 258. In your response to this letter please provide a copy of the analysis performed or documentation of knowledge used to determine that the used oil, soil contaminated with used oil and absorbent contaminated with used oil are not hazardous wastes.

Question 10

Please indicate how Owens-Illinois de Puerto Rico is managing the residues from its oil burning operations. For these residues, provide the information requested in Question 1(b) and Question 2 when answering this Question.

Question 11

A burner of off-specification used oil that stores used oil in above ground tanks and containers must have secondary containment for the tanks and containers storing used oil.

Please provide documentation that demonstrates that Owens-Illinois de Puerto Rico complies with the secondary containment requirements of 40 C.F.R. § 279.64(c) for containers.

ATTACHMENT II

INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must complete and return the attached Certification of Answers to Responses to Request for Information.

2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.

4. In answering each question, identify all contributing sources of information.

5. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.

6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.

7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner, the number of the question to which it applies.

8. If anything is deleted from a document produced in response to this Request for Information, state the reason for and the subject matter of the deletion.

9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. The company and/or facility for the purposes of this Request for Information, is Owens-Illinois de Puerto Rico, Carretera 690 Km.1.7, Barrio Sabana Hoyo, Vega Alta, P.R. 00692.

11. A generator of hazardous waste for the purposes of this Request for Information shall be defined as any person (which includes this facility), by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation.

12. Solid waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(27) of RCRA, as amended, 42 U.S.C. Part 6903(27).

13. Hazardous waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(5) of RCRA, as amended, 42 U.S.C. Part 6903(5).

14. Manage shall be defined for the purposes of this Request for Information as to market, generate, treat, store, dispose or otherwise handle.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, that the submitted information is true, accurate and complete, and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information.

_____

NAME (print or type)

_____

TITLE (print or type)

_____

SIGNATURE

_____

DATE

EXHIBIT G

May 20, 1997 OIPR's Response to USEPA's RCRA § 3007 Information Request

OWENS-ILLINOIS
de Puerto Rico

May 20, 1997

VIA FEDEX

Marianna Dominguez
Environmental Engineer
Division of Enforcement and
Compliance Assistance
U.S. EPA - Region II
290 Broadway, 22nd floor
New York, NY 10007-1866

Re: Owen-Illinois de Puerto Rico
RCRA §3007 Request for Information

Dear Ms Dominguez:

This letter constitutes Owens-Illinois of Puerto Rico ("Owens-Illinois") response to the Request for Information dated March 11, 1997, sent by the U.S. Environmental Protection Agency - Region II, pursuant to the provisions of Section 3007 of the Resource Conservation and Recovery Act ("RCRA").

The RCRA Section 3007 Information Request was received by Owens-Illinois on March 19, 1997. EPA granted Owens-Illinois until May 20, 1997, to provide a complete response to the aforementioned information request. Owens-Illinois' responses are attached to this letter.

In my capacity as Owens-Illinois' Plant Engineer I have either personal knowledge or responsibility over the activities referred to in the Request for Information. I believe that the response to EPA's Request for Information provided herein by Owens-Illinois contitutes a true, accurate and complete response.

Please call us if you have any questions or need any further information.

Cordially yours,

Milton Rosa
Plant Engineer

yt

enclosure

Owens-Illinois of Puerto Rico
RCRA §3007 Request for Information

Responses:

1. a. The following activities conducted at Owens-Illinois' glass manufacturing facility generated solid and /or hazardous waste, as these terms are defined in 40 CFR Part 261, during the time period of July 1, 1993 to the present:

Hazardous Waste:

1. Parts cleaning stations which generate spent solvent-mineral spirit waste.

2. Cleaning of furnace regenerator which produces chromium checker dust.

3. Stennous oxide (Tin Chloride) D002 waste generated by the removal of dust from from the baghouse dust bags.

4. Replacement of florescent light tubes.

5. Mold cleaning operation which generates a film lubricant material that has been disposed of as hazardous waste.

6. Bottle wrapping operation which produced a waste poisonous liquid containing methylene chloride. This activity was discontinued at the end of 1994.

7. Sodium hydroxide waste (Okite) resulting from the cleaning operation of forming machine parts in an acid bath.

8. Methyl Ethyl Ketone (MEK) used for bar coding. The ink used in the process has MEK and spay gun cleaning operation generates the waste.

In addition to the above, the hazardous waste manifest file maintained by the company reveals the following non-recurring activities that resulted in the generation of solid and/or hazardous waste:

1. A diesel waste material which resulted from an accidental spill within a secondary containment system. This material was mixed with sand and disposed of as a hazardous waste by Owens-Illinois.

2. Disposal of electric capacitors with PCB containing oil.

3. "Pyrite" waste material.

Solid Waste:

1. Changes of lubricant oil and oil filters from fork lifts

2. Disposal of empty baghouse dust bags

3. Scrap metal from old equipment and parts

4. Removal of asbestos-cement panels

5. Construction debris

6. Cleaning of fork lift washing pit

7. Nurse room operation

8. Cullet lubricant oil generating activity

9. Sludge material from the Jadair sand washing operation.

10. Tin Chloride neutralized with soda

11. General facility solid waste disposed by BFI at the Vega Baja Municipal Landfill.

b. The solid and /or hazardous waste listed below were generated by Owens-Illinois during the time period of July 1, 1993 to the present. Due to the variability in the amounts generated and the frequency of generation of the waste materials, the amounts are listed in either pounds or gallons per year, or gallons per month:

Hazardous Waste:

1. Spent solvent-mineral spirit waste currently approximately 90 gallons per month with the following yearly totals: 980 gallons in 1993, 947 gallons in 1994, 961 gallons in 1995, 1048 gallons in 1996.

2. Chromium checker dust waste has been disposed of approximately once a year as follows: 62,820 lbs. in 1994; 32,310 lbs. in 1995; 24,125 lbs. in 1996.

3. Disposal of electric capacitors with PCB containing oil, 500 lbs. total in 1993.

4. Replacement of florescent light tubes (240 lbs in 1995).

5. Mold cleaning operation which generates a film lubricant material that has been disposed of as hazardous waste (1630 lbs. in 1995 and 765 gallons in 1996)

6. Bottle wrapping operation which produces a waste liquid containing methylene chloride (122 gallons in 1995)

7. Mold cleaning operation produces a sodium hydroxide waste (Oakite) (1105 gallons in 1996)

8. Stannous oxide waste generation activity(600 lbs in 1994)

Solid Waste:

1. Changes of lubricant oil and oil filters form the fork lifts. The oil is recycled and the filters disposed of.

2. Baghouse bags with dust (1,500 lbs in 1994, 2,400 lbs in 1996).

3. Non-friable asbestos-cement panels (3 cubic yards in 1995, 11 cubic yards in 1996).

4. Construction debris(undetermined amount associated with construction of sand plant facility in 1993).

5. Biomedical wastes (25 lbs. between July-December 1993, 58 lbs. in 1994, 47 lbs. in 1995, 68 lbs. in 1996).

6. Mixture of water and "Cullet" oil (6,500 gallons disposed of off-site in 1995).

7. Waste oil disposed off-site in 1995 (65 gallons).

8. Refractory bricks containing low level radioactive content (see Appendix A)

The source of this information has been the company waste files.

2. a. 1. Spent solvent-mineral spirit waste. D001

2. Chromium checker dust waste. D004, D006, D007, and D008.

3. Electric capacitors with PCB containing oil

4. Used florescent light tubes. D009.

5. Mold cleaning film lubricant waste. F003 & D018

6. Waste poisonous liquid containing methylene chloride. F002

7. Sodium hydroxide D002, D007

8. Stannous oxide waste. D002.

In concluding that these wastes were hazardous Owens-Illinois employed generator's knowledge and characterizations made by the waste disposal contractor.

Copies of the pertinent characterizations will be provided once these are obtained from the disposal contractors.

b. 1. Used oil and oil filters. Attached as Appendix B please find copies of several waste analysis performed to the used oil generated at the facility which demonstrate that the used oil is not a hazardous waste.

2. Baghouse bags with dust. Generator's knowledge of the type of particulate matter dust generated.

3. Non-friable asbestos-cement panels. Generators' knowledge and analytical results attached herein

4. Construction debris. Generator's knowledge.

5. Waste oil, see Appendix C.

6. Biomedical wastes. Generator's knowledge.

The source of the information provided in this response has been the company waste files.

3. a. Stored in the temporary hazardous waste storage area at the facility. Disposed of through the use of licenced disposal contractors. See as Appendix D copies of available waste manifests for a description of disposal facility for each such waste.

b. See attached hazardous waste manifests (Appendix D) showing the

pertinent dates disposal of the affected wastes. Storage at the facility is performed for period of less than 90 days from the date of waste generation.

The source of the information provided in this response has been the company waste files.

4. See attached manifests (Appendix D).

The source of the information provided in this response has been the company waste files.

5. Used oil is removed from fork lifts at the facility's designated garage area by the fork lift mechanics. The fork lifts are driven on top of a rail with an open space below to allow for the mechanic to have access to the under side of the fork lift to perform the oil change. Attached as Appendix E is a photo of the tank. The used oil is drained, through an extended funnel, directly into a 5-gallon plastic container. The used oil is then transferred manually by the mechanic from the 5-gallon container into a 55-gallon stell drum. Once full, the 55-gallon containers are subsequently transferred in a fork lift to the facility's used oil recycling filtering area. There it is poured into an above ground steel tank (5' long x 5'wide x 2'deep) where the used oil is filtered with a steel mesh (# 20). Attached as Appendix F is a photo of the tank. From this tank the used oil is pumped to a 10,000 gallons above storage tank for use as an alternate fuel at the facility. Attached as Appendix G is a photo of the 10,000 gallon tank.

The used oil removed from the fork lifts is used in the facility's used oil recycling program as an alternate fuel for the sand plant dryer and glass melting furnaces.

The above referred practice of fork lift oil changes has been performed by O-I personnel, except for a period of 2 1/2 years when a company named Gonzalez Trading (PO Box 364884, San Juan, Puerto Rico 00936) used to perform the oil changes to the fork lifts about 2 1/2 years ago.

The used oil filters are removed from the fork lifts and placed inside a 55-gallon steel container for proper disposal. The used oil filters seen by the EPA inspector are currently stored in a 55 gallon steel drum pending disposal.

Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

6. In responding to this question, we assume that what is referred to as the "current Underground Storage Tank" associated with the draining of used oil from Owens-Illinois' vehicle engines, is the sump used for the collection of the fork lift wash waters located at the mechanic's garage.

Pursuant to the information provided by company personnel that has been working at the facility for at least 15 years and who I have reason to believe that may be familiar with this matter, the mentioned pit was constructed about 15 years ago. We have searched company files and talked to plant employees but could not find any information on the manner in which the used oil drained from Owens-Illinois's vehicle engines was collected and disposed prior to that time. For additional information please refer to Owens-Illinois' responses to EPA's Request for Information under Section 9005 of RCRA submitted on May 20, 1997.

Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

7. Pursuant to information provided by company personnel, the pit referred to in the Request for Information has been used for at least 15 years to allow access for the mechanics to reach the oil reservoir of the fork lifts and to remove the used oil and replace oil filters. The pit has never been used as a storage tank to collect used oil removed from vehicle engines.

   Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

8. Yes. Owens-Illinois complies with the pertinent provisions of 40 CFR Part 279 applicable to used oil burners. The company has relied on analytical information, as well as generator's knowledge, to determine that the used oil is not a hazardous waste and thus can be burned at the facility as an alternate fuel.

   Copies of pertinent analytical results are attached herewith as Appendix B. Owens-Illinois has relied on generator's knowledge in determining that the used oil removed from its vehicle engines is not a hazardous waste.

   The source of the information provided in this response has been the company waste files.

9. See analytical results attached as Appendix B.

10. No residues are generated from Owens-Illinois' used oil burning operations.

11. Owens-Illinois stores used oil intended to be burned in a 10,000 gallons above ground storage tank that has proper secondary containment meeting the requirement of 40 CFR 279.64(d). Attached please find as Appendix G a photo of the mentioned tank showing the secondary containment system therein installed.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Milton Rosa

Name (print or type)

SIGNATURE

May 20,1997

DATE

RESULTS TABLES for ECG Sample ID 97-020-01

I. Used Oil Parameters

Parameter	Amount Detected (ppm)	Regulatory Level (ppm)
Arsenic	<0.001	5
Cadmium	0.01	2
Chromium	<0.01	10
Lead	<0.1	100
Ignitability	>140°F	<140°F
Total Organic Halogens (TOX)	700	4,000

* All amounts are parts per million (ppm, mg/l, mg/kg) unless otherwise specified.

DATA CERTIFICATION STATEMENT

All data contained herein has been reviewed for compliance with methodology requirements and, where applicable, corrective action has been taken. Corrections and approval of data has also been performed.

All analyses and procedures have been performed by supervised and qualified personnel.

All the data gathered and obtained for the preparation of this report will be kept in our custody for a term of three years, unless otherwise required by the client or any other interested party. All the Quality Control and Quality Assurance generated for the validation of the data is available upon request.

I hereby certify that all raw data and associated documentation has been reviewed and approved.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
QUIMICO LICENCIADO
José Juan Orsini Hecht
LIC. 3300
A 427858

Jose Juan Orsini Hecht
Chemist's License No. 3300

ECG Laboratories
Environmental Analytical Services ◆ Division of ECG Enterprises, Inc.

December 26, 1995

Mr. Angel Alvarado
Owens Illinois
P.O. Box 387
Vega Alta, PR 00692

RE: Used Oil Parameters **Report No. 95-586**

Dear Mr. Alvarado:

With respect to the project of reference above, included you will find our report of analysis for the following ECG Sample ID numbers and their respective identities:

ECG Sample ID	Sample Identity/Procedence
95-586-01	Dron / 55 gal.

All analyses were performed in accordance to EPA methods and/or laboratory SOP's. Quality Assurance/Quality Control requirements were accomplished according to methodology requirements.

Should you have any inquiries regarding the data contained herein, please do not hesitate to contact me at your convenience.

Cordially,

Melba Torres
Metals Area Supervisor

P.O. Box 00919-0064 ◆ Tel. (809) 759-0101 ◆ FAX (809) 764-8097

DATA CERTIFICATION STATEMENT

All data contained herein has been reviewed for compliance with methodology requirements and, where applicable, corrective action has been taken. Corrections and approval of data has also been performed.

All analyses and procedures have been performed by supervised and qualified personnel.

All the data gathered and obtained for the preparation of this report will be kept in our custody for a term of three years, unless otherwise required by the client or any other interested party. All the Quality Control and Quality Assurance generated for the validation of the data is available upon request.

I hereby certify that all raw data and associated documentation has been reviewed and approved.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
QUIMICO LICENCIADO

José Juan Orsini Hecht
LIC. 3300

Jose Orsini Hecht
General Manager
P.R. Chemist's License No. 3300

A 380369

ECG Laboratories
PO Box 190064
San Juan, PR 00919-0064
Tel. (809) 759-0101, FAX (809) 764-8097

RESULTS TABLES for ECG Sample ID 95-586-01

I. Used Oil Parameters

Parameter	Amount Detected (ppm)	Regulatory Level (ppm)
Arsenic	<0.1	5
Cadmium	0.10	2
Chromium	0.3	10
Lead	0.3	100
Ignitability	>140°F	100°F
TOX	300	4,000

Inchcape Testing Services
Caleb Brett

REPORT OF ANALYSIS

Vessel	:
Port/Terminal	: UNKNOWN
Client Ref	: SAFETY KLEEN
Our Ref	: PR/95-7462
Date Sample Taken	: 02/08/95
Date Submitted	: 02/09/95
Date Tested	: 02/09/95
Sample Designated As	: USED OIL
Drawn By	: SAFETY KLEEN PERSONNEL
Representing	: AVERAGE SAMPLE FROM TANK 24
Lab Reference	: 9502-0-117

TEST	METHOD	RESULT	UNITS
SULFUR CONTENT	D4294	0.46	WT%
VANADIUM	IP288	LT 10	PPM

ESTADO LIBRE ASOCIADO DE PUERTO RICO
RUTH N. RODRIGUEZ
LIC. 2448
347935
QUIMICO LICENCIADO

FOR CALEB BRETT U.S.A.

safety-kleen

SAFETY-KLEEN ENVIROSYSTEMS COMPANY OF P.R. INC.
PLANT LOCATION KM 5° HIGHWAY 2
P.O. BOX 31098, MANATI P.R. 00674 TEL. (809) 854-1195
(800) 462-7480 (P.R.) FAX (809) 854-6195

CHAIN OF CUSTODY RECORD

(Fuels, Drums, Bulks, Tolling, Burn Tanks-SK Dorado, Other)

Date : 2/15/95

LABORATORY IDENTIFICATION: SKL95 2372

TANK TRUCK # : T227

OTHER IDENTIFICATION : Used oil

BATCH ID # : _____

SAMPLE TYPE : _____

TYPE OF ANALYSIS:

IN PROCESS _____

FINAL PRODUCT _____

FUEL ANALYSIS _____

FULL FUEL ANALYSIS _____

SK DORADO _____

BURN TANK # _____

TEST	REQUESTED	COMPLETED	COMMENTS
Specific Gravity			
Viscosity	✓		
pH Determination			
Acidity/Alkalinity			
Non Volatile Residue			
Karl Fischer	✓	1.7920%	
Reactivity			
Flash Point	✓		
Metals by ICAP	✓	DONE AL 2/16/95	
Heat Content	✓	18,513	
Cl- Determination HPLC			
Cl- Determination TITR.			
Volatile Organic Compounds			
P.C.B.			
Combustible Solids	✓	< 5.00%	

ADDITIONAL COMMENTS: For H-20. SS. Metals

SAMPLER SIGNATURE: W. R

RECEIVED AT LAB by:

AT 4:25

(01/20/95 chcust1-sce)

Set: SPECTRO Sample: [illegible]
Date Time: 02/13/[illegible]
Comment: SAMPLE
Std: CONC Calc. Factor: 10

Elem	Be	Al	As	Ba	Ca	Cd	Co
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
High	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Blk	.1000	.1100	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
%RSD	00.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low
High	10000.	100000.	30000.	10000.	7500.	12500.	2500.
Low	0.000	0.000	0.000	1.000	1.000	1.000	1.000

Elem	Cr	Fe	Hg	Mn	Ni	Pb	Sb
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
High	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Blk	.0000	.01	.1100	.0101	.0050	.000	.101
%RSD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Errors	LC Pass	LC Pass	LC Low	LC Low	LC Low	LC Pass	LC Low
High	10000.	20000.	30000.	10000.	37500.	[illegible]	[illegible]
Low	1.000	1.000	0.000	1.000	1.000	[illegible]	[illegible]

Elem	Se	Sn	Ti	Tl	V
Units	ppm	ppm	ppm	ppm	ppm
High	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Blk	[illegible]	.0000	.17	[illegible]	.38
%RSD	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Errors	LC Low	LC Low	LC Pass	LC Low	LC Pass
High	30000.	30000.	25000.	75000.	10000.
Low	0.000	[illegible]	1.000	10.00	1.000

BECKTON ENVIRONMENTAL

LABORATORIES INC

REPORT OF ANALYSIS

Att.: J. Steven
Safety Kleen

Date: February 15, 1995

Lab Name: Beckton Environmental Laboratories Lab. File ID: BEL-294

Lab. sample ID: SK-294 Date: 02/13/95 Description: SKL-95-2294 TK-1227

Matrix: Oil

PARAMETER	EPA METHOD	SAMPLE TYPE	UNITS	BEL 294
Phosphorus, total	365.4	Grab	mg/L	18.5

Certification and release of the data contained in the Report of Analysis has been authorized by the Laboratory Manager or the Manager's Designee.

ESTADO LIBRE ASOCIADO DE PUERTO RICO
Rafael Infante Méndez
QUIMICO LICENCIADO
LIC. #1888
A 34

Lcdo. Rafael Infante
Laboratory Director
Chemist License No. 188

TEST RESULTS BY SAMPLE

Sample: 01A Used Oil Collected: 03/13/95 Category: 138899
Job: 01-13 Oil - Water Emulsion

Test Description	Result	Limit	Units	Analyzed	By
Flash Point	>194	1.0	°F	03/24/95	MO
Gross Heat of Combustion	9,049	100	BTU/Lb.	03/27/95	MO
PCB's					
Arochlor-1016	<0.010	0.010	mg/kg	03/20/95	TC
Arochlor-1221	<0.100	0.100	mg/kg	03/20/95	TC
Arochlor-1232	<0.010	0.010	mg/kg	03/20/95	TC
Arochlor-1242	<0.010	0.010	mg/kg	03/20/95	TC
Arochlor-1248	<0.010	0.010	mg/kg	03/20/95	TC
Arochlor-1254	<0.010	0.010	mg/kg	03/20/95	TC
Arochlor-1260	<0.010	0.010	mg/kg	03/20/95	TC
Phosphorus, Total	910	1.0	mg/kg	03/30/95	JN
Specific Gravity	0.932			03/24/95	JT
Sulfur, Total	0.12	0.01	%	03/27/95	MO
Total Aluminum	2.7	0.5	mg/kg	04/03/95	AM
Total Arsenic	0.01	0.01	mg/kg	03/30/95	JAS
Total Barium	<0.50	0.50	mg/kg	04/03/95	AM
Total Cadmium	0.275	0.01	mg/kg	03/31/95	MO
Total Chromium	0.2	0.1	mg/kg	03/31/95	NP
Total Fixed Solids (Ash)	0.8	0.1	%	03/24/95	ELC
Total Halogens	0.17	0.1	%	03/30/95	MO
Total Iron	0.96	0.1	mg/kg	04/04/95	NP
Total Lead	0.325	0.03	mg/kg	03/29/95	SG
Total Mercury	<2.0	2.0	mg/kg	03/30/95	JS
Total Sodium	195	0.05	mg/kg	03/15/96	NP
Total Solids	17	0.1	%	03/23/95	ELC
Total Vanadium	<0.20	0.2	mg/kg	04/03/95	AM
Water Content	43.7	1	%	03/27/95	SP

OWENS ILLINOIS DE P.R.
P.O. BOX 387
VEGA ALTA, P.R. 00692

Attn: MRS. MAGDA BERMUDEZ
Invoice Number:

Order #: 95-04-142
Date: 04/19/95 14:01
Work ID: Oil - Water Emulsion
Date Received: 03/14/95
Date Completed: 04/19/95
Client Code: 152_01

DS #: 95-8121
Samples collected by Client.
Eq Lab Samples # 138899 - Used Oil
Limit = Detection Limit.

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	Used Oil		

Certified By
Ismael Martinez

A 357293

63-R4505 (REPRINT) REQUALIFICATION EVALUATION

APPENDIX C

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082102 WASTE,N-SPEC FUEL-55
REVIEW DATE: 04/28/1995 REVIEWERS: CAP

APPROVED FACILITIES:
SAFETY-KLEEN ENVIROSYSTEMS
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001082 DRUM OR BULK WASTE OIL AND WATER MIXTURE
(NOT USDOT HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:
****
*
* PROPER SHIPPING DESCRIPTION WAS BASED ON THIS SINGLE ANALYSIS. GENERATOR
* MUST CERTIFY THAT SHIPMENT IS NOT HAZARDOUS. PER COMPANY POLICY, FRS
* CUSTOMERS MUST COMPLETE GENERATOR CERTIFICATION WITH EACH SHIPMENT
* AND BRANCH WILL FILE IN CUSTOMER RECORDS.
*
* OK FOR FLOWABLE FUEL.
*
* THE LAB HAS RECEIVED A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR
* NON-HAZARDOUS APPROVAL.
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
ITED ABOVE HAS THE APPROPRIATE PERMITS, HAS CAPABILITY, HAS CAPACITY AND
S WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

363-R4505 (REPRINT) PREQUALIFICATION EVALUATION
ENVIROSYSTEMS COMPLETED: 05/02/95
ENVIROSYSTEMS - FUELS REVISED:
RUN: 05/02/95

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	GRAY DK GRAY
WATER CONTENT	:	53.0 WT%
NON-VOLATILE RESIDUE	:	47.0 WT% DESCRIPTION: OIL
FLAMMABILITY	:	NO FLASH AT 142 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 75 F BY SETAFLASH
PH	:	EXTRACT BY METER 5.9
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: NO FLASH AT 202F,NVR AT 200C=28.4 OIL&SLUDGE

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	9100 BTU/LB	ASH UPON COMBUSTION	:	<	1.0	WT%
TOTAL SULFUR	S :	0.1 WT%	TOTAL BROMINE	BR:	<	0.1	WT%
TOTAL CHLORINE	CL: <	0.1 WT%	TOTAL FLUORINE	F :	<	0.1	WT%

COMMENTS: CHLORIDE=107PPM

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

COPPER		CU:	13	ANTIMONY		SB:	<	15
IRON		FE:	243	TITANIUM		TI:		8
NICKEL		NI:	6	ZINC		ZN:		109
PHOSPHORUS		P :	116	MAGNESIUM		MG:		37
SILVER	(D011)	AG: <	1	ARSENIC	(D004)	AS:	<	10
BARIUM	(D005)	BA: <	20	BERYLLIUM		BE:	<	2
CADMIUM	(D006)	CD: <	3	CHROMIUM	(D007)	CR:	<	2
MERCURY	(D009)	HG: <	10	LEAD	(D008)	PB:	<	5
SELENIUM	(D010)	SE: <	20	THALLIUM		TL:	<	30

GENERAL COMPOSITION:	COMPOSITION BY: CENTRIFUGE (VOL%)	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)	50.0	8.0	8.0
ORGANIC PHASE (FEEDSTOCK)	48.0	92.0	92.0
BOTTOM SLUDGE (SEMISOLIDS)	2.0	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)		0.0	0.0
TOTAL	100.0	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: .930 VISCOSITY (CENTIPOISE): 1250 CPS

SPECIFIC COMPOSITION OF TOTAL SAMPLE	COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT		53.0	53.0
NON-VOLATILE RESIDUE	DESCRIPTION: OIL	47.0	47.0
VOLATILE ORGANICS BY DIFFERENCE		0.0	0.0
TOTAL		100.0	100.0

CONTINUED ON NEXT PAGE

*** ACCEPT FOR SHIPMENT

MAINTENANCE
MAY 03 1995
RECEIVED

63-R4505 (REPRINT) REQUALIFICATION EVALUATION

ENVIROSYSTEMS

ENVIROSYSTEMS - FUELS

COMPLETED: 05/02/95

REVISED:

RUN: 05/02/95

ACCEPT FOR SHIPMENT

RANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID, MASS-SPEC

COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
NO VOLATILE ORGANICS DETECTED (<0.1% EACH) CODE: NONE CAS NUMBER:	100.0	0.0
TOTAL	100.0	0.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <
SAFETY-KLEEN REGULATED COMPOUNDS: NONE DETECTED

LABORATORY REVIEW: A SEG CODE: REVIEWERS: JA JA LAB: SK TECHNICAL CTR
RELEASED: 05/01/95 ANALYZED: 04/28/95 SUBMITTED: 04/13/95
COMMENTS: H2O COMP:NEG. COAG. TEST:PASS, WATER REACTIVITY: NEGATIVE, WATER ESTIMATED BY DIFFERENCE.

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITY.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

*** ACCEPT FOR SHIPMENT

END OF DOCUMENT

MAINTENANCE
MAY 03 1995
RECEIVED

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

APPENDIX D

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: [illegible]
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692
4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number:
B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: PRD090399718
G. State Facility's ID:
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, [redacted], [redacted]) (ERG #[redacted] 128.	[illegible]	DIM	[illegible]	G	D001 [redacted]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE [redacted] 128

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn. In addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank tracks. In case of individual injuries rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
[illegible] Rosa	[illegible]	01 10 97

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
William Lolid Baez	William Colon Baez	01 10 97

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
Mariboi Rodriguez	[illegible]	01 10 97

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

Form Approved. OMB No. 2050-0039. Expires 9-30-91

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
P R D 0 9 0 4 9 0 2 8 5	71002		

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692
ACC. 5135

4. Generator's Phone (809) 883-5800

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

A. State Manifest Document Number
B. State Generator's ID
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG ~~#27~~ 128.	002	DM	003115	G/S P	D001
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
1) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27) 128.

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: first, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
/TSDF (809)854-1090
24 hours Emergency response information number (809) 883-5800

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
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Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
Wilfredo Rosa		02	10	89

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Salvador Cruz		02	10	89

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Wilfredo Rodriguez		02	10	89

GENERATOR

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

CP-2567-U

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 97003

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R. 62-1232
P.O. BOX 387 (RD. 690, KM 1.1, BO. SUBANO)
VEGA ALTA, P.R. 00692

4. Generator's Phone (787) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (787) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico, 00674

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (787) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	15. Waste No.
a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., (N-BUTYL ALCOHOL, ALIPHATICS), 3, UN1993, PGIII, (EPA, D001, F003) (RQ100)	002	DM	00110	G	(D001), F003
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) CONTROL #2606775, ERG #128.

K. Handling Codes for Wastes Listed Above
S01, S02, T50, T81

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (787) 883-5800 /TSDF (787)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): MILTON ROSA \ Yolanda Tirado — Signature: Yolanda Tirado Cores — Month Day Year: 03 05 97

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Sergio Rivera — Signature: [signature] — Month Day Year: 03 05 97

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Hilda Sanchez — Signature: [signature] — Month Day Year: 03 05 97

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

Environmental Quality Board

ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.:

2. Page 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone: (809) 883-5800 ACC. 5135

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID:

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, D018, D039) (ERG #27)	0103	DM	000415	G ~~X~~	D001 D018 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE ~~XXX~~ 128

K. Handling Codes for Wastes Listed Above:
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: [signature] — Month Day Year: 03 18 97

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: [signature] — Signature: [signature] — Month Day Year: 03 18 97

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

On sect. on a ERG # is 128, instead of 27.
On sect. ons a and I, waste No. should only read D001.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Marcel Rodriguez — Signature: [signature] — Month Day Year: 03 18 97

GENERATOR — TRANSPORTER — CILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

CP-2967-89

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 97005

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 [illegible]) (ERG #[illegible]) 128.	004	DM	00046	G [illegible]	D001 [illegible]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) ~~883-5800~~ 1-800-424-9300 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF): Yolanda Tirado — Signature: Yolanda Tirado — Month Day Year: 03 21 97

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Benny Gonzalez — Signature: [signature] — Month Day Year: 03 21 97

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space
On Section J the Guide No. is 128 instead of 27.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [illegible] — Signature: [signature] — Month Day Year: 03 21 97

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete. CP-2967-4

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 97006

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R.
P.O. BOX 387 (CARR. 690, KM 1.1)
VEGA ALTA, P.R. 00692
62-1232

4. Generator's Phone (787) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (787) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico, 00674

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (787) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. NOT A US DOT REGULATED MATERIAL, NOT A US EPA HAZARDOUS WASTE.	015	21	00825	G	N/A
b. NOT A US DOT REGULATED MATERIAL, NOT A US EPA HAZARDOUS WASTE.				G	N/A
c.					
d.					

I. Additional Descriptions for Materials Listed Above
a) CONTROL #2606774.
b) CONTROL #1507524.

K. Handling Codes for Wastes Listed Above
S01, S02, T50, T61

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn. In addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number INFOTRAC 1-800-468-1760 /TSDF (787)854-1090

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Printed/Typed Name (ON BEHALF OF): MILTON ROSA — Signature: [signature] — Month Day Year: 09/11/97

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Ernesto Pavilla — Signature: [signature] — Month Day Year: 09/11/97

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285
Manifest Document No.: ~~[illegible]~~ 97 007 E-M
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692
4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number:
B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701
10. US EPA ID Number: PRD090399718
G. State Facility's ID:
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, [redacted] (ERG #[redacted] 128.	097	DM	00104	G	D001 [redacted]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL, (GUIDE [redacted] 128.

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 1-800-468-1760 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): Milton Rosa
Signature: [signature]
Month Day Year: 09 18 97

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: [signature]
Signature: [signature]
Month Day Year: 09 18 97

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year:

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 9C00V

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	007	DM	0008V	g	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn. In addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: [signature] — Month Day Year: 01 15 96

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 01 15 96

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Norbert Rodríguez — Signature: [signature] — Month Day Year: 01 15 96

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type: (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 06002

2. Page 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone: (809) 883-5800 ACC. 5135

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID:

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	007	DM	00091	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
(A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above:
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn. In addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): * Mi Hon Rosa — Signature: [signature] — Month Day Year: 02 12 96

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 02 12 96

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Marthol Rodríguez — Signature: [signature] — Month Day Year: 02 12 96

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

OCHOA ENVIRONMENTAL SERVICES

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. 19602 | 2. Page 1 of | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS
ROAD 690 KM 1.1 BO. DAJ
VEGA ALTA, PR 00692-

A. State Manifest Document Number

B. State Generator's ID

4. Generator's Phone (809) 883-5200

5. Transporter 1 Company Name
OCHOA INDUSTRIAL SALES CORP.

6. US EPA ID Number

C. State Transporter's ID HW-21

D. Transporter's Phone 809/788-9001

7. Transporter 2 Company Name
CROWLEY AMERICAN TRANSPORT

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone 809/721-1313

9. Designated Facility Name and Site Address
LAIDLAW ENV. SERV. (TB), INC.
5300 125TH AVENUE NORTH
CLEARWATER, FL 34620-

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone (813) 573-1405

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X HAZARDOUS WASTE SOLID, N.O.S., CONTAINS (CHROMIUM, S, NA3077, PG III, (D004, D006, D007, D008)	003	DM	34/35	P	D004, D006, D007, D008
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
(a) CWOIL-001: CHECKERDUST

K. Handling Codes for Wastes Listed Above
(a) ~~D81~~ 501/M141

15. Special Handling Instructions and Additional Information
JOB#: 2361 MAIL CERTIFICATE OF DISPOSAL TO OCHOA AND GENERATOR
SHP: 4161 CONTAINERS: TRUCK ; TRAILER: 31
EMERGENCY PHONE : (809) 883-5200 EMERGENCY CONTACT : MILTON ROSA

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway and water according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
MILTON ROSA		10	21	96

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
N. CINTRON		10	22	96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ANGEL RODRIGUEZ		10	22	96

19. Discrepancy Indication Space In reference to 49 CFR 172.101 (b)(3) item 11 Line a is inappropriate DOT description for international transport
HRC 3/6/96

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
G. Ann Boyer		10	30	96

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY C/ IE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

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Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. PRD090430005	Manifest Document No. 96003	22. Page 2 of 2	Information in the shaded areas is not required by Federal law.

23. Generator's Name OWENS ILLINOIS ROAD 690 KM 1.1 BOX 387 VEGA ALTA. PR 00692-	L. State Manifest Document Number M. State Generator's ID
24. Transporter ~~1~~ Company Name ~~LAIDLAW ENV. SERV. OF BARTOW~~ — 25. US EPA ID Number ~~[illegible]~~	N. State Transporter's ID O. Transporter's Phone ~~[illegible]~~
26. Transporter 3 Company Name LAIDLAW ENVIRONMENTAL SVCS (TS) — 27. US EPA ID Number MDD980554653	P. State Transporter's ID Q. Transporter's Phone 913573 1405

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM		29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.							
b.							
c.							
d.							
e.							
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

JOB#: 2961 MAIL CERTIFICATE OF DISPOSAL TO OCHOA AND GENERATOR

SH#: 4(-) CONTAINER#: TRILL 47 ERG#:31

EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MILTON ROSA

33. Transporter 3 Acknowledgement of Receipt of Materials		Date
Printed/Typed Name: BRIAN K WRIGHT	Signature: Brian K Wright	Month Day Year: 03 01 96
34. Transporter ____ Acknowledgement of Receipt of Materials		Date
Printed/Typed Name: [illegible]	Signature	Month Day Year

35. Discrepancy Indication Space

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

GENERATOR

TRANSPORTER

FACILITY

EPA Form 8700-22A (Rev. 9-88) Previous editions are obsolete

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Use printer type. - (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
PRD090490285	191101014		

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.	PRD093991718	HW-02
		D. Transporter's Phone (809) 854-1090
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	G. State Facility's ID
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc. P.O. Box 31098, Hwy. 2 Km. 51.0 Manati, Puerto Rico 00701	PRD093991718	H. Facility's Phone (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001, ~~D018, D039~~) (ERG #27)	007	DM	00090	G	D001 D018 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
1) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
X Milton Rosa		03 14 96

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Ricardo Diaz Sanchez		03 14 96

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
Marbel Rodriguez		03 14 96

GENERATOR

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 960015

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	007	DIM	00083	9 X	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: Milton Rosa — Month Day Year: 04 12 96

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Díaz Gordón — Signature: [signature] — Month Day Year: 04 12 96

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Maribel Rodríguez — Signature: Maribel Rodz — Month Day Year: 04 12 96

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 76006

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 — ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D010, D039~~ 4) (ERG #27)	007	DM	00083	9	D001, ~~D010~~, ~~D039~~ 4
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: [signature] — Month Day Year: 05 06 96

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 05 06 96

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Maribel Rodríguez — Signature: [signature] — Month Day Year: 05 06 96

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: P R D 0 9 0 4 9 0 2 8 5 [illegible]

Manifest Document No.: 96007

2. Page 1 of 2

3. Generator's Name and Mailing Address: OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

4. Generator's Phone (787) 883-5800

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.

6. US EPA ID Number: P R D 0 9 0 1 2 6 5 6 2

A. Transporter 1 Phone

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT

8. US EPA ID Number: P R D 0 9 0 5 5 9 3 1 0

B. State Transporter's ID

C. Transporter 2 Phone

9. Designated Facility Name and Site Address:
LAIDLAW ENV. SERV. OF BARTOW
170 BARTTOW MUNICIPAL AIRPORT
BARTOW, FL 33830-

10. US EPA ID Number: F L D 9 8 0 7 2 9 6 1 0

D. State Facility's ID: 609/726-8000 809/721-1313

E. Facility's Phone: (813) 533-6111

11. WASTE DESCRIPTION	Containers No.	Containers Type	13. Total Quantity	14. Unit Wt./Vol.
BAGS CONTAMINATED WITH DUST, NON EPA NON DOT REGUALTED MATERIAL	12	DF	02,400	P.
b.				
c.				
d.				

F. Additional Descriptions for Materials Listed Above
(a) TRSI-20252: BAGS CONTAMINATED WITH DUST

G. Handling Codes for Wastes Listed Above
(a) D81

15. Special Handling Instructions and Additional Information
JOB#: 3182 MAIL CERTIFICATE OF DISPOSAL TO OCHOA AND GENERATOR
SH#: 485 CONTAINER#:
EMERGENCY PHONE : (787) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDEZ

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Angel L. Santiago
Signature: [signature]
Date: Month 5 Day 13 Year 96

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID SANCHEZ
Signature: David Sanchez
Date: Month 05 Day 13 Year 96

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible]
Signature: [illegible]
Date: Month 05 Day 24 Year 96

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.
Printed/Typed Name: MARTHA HAMILTON
Signature: Martha Hamilton
Date: Month 06 Day 11 Year 96

GENERATOR

TRANSPORTER

FACILITY

RCRA NON-HAZARDOUS WASTE

PRINTED ON RECYCLED PAPER

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM NON HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. PRD090490285	Manifest Document No 96007	22. Page 2 of 2	Information in the shaded areas is not required by Federal law.

23. Generator's Name
OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

L. State Manifest Document Number
M. State Generator's ID

24. Transporter 2 Company Name
~~LAIDLAW ENV. SERV. OF BARTOW~~

25. US EPA ID Number
~~FLD930729610~~

N. State Transporter's ID
O. Transporter's Phone ~~813/635-6111~~

26. Transporter 3 Company Name
LAIDLAW ENV SVCS (TS)

27. US EPA ID Number
MDD980554653

P. State Transporter's ID
Q. Transporter's Phone 813 573 1405

28. Waste Shipping (Name & Description)	29. Containers No.	Type	30. Total Quantity
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
i.			

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
JOB#: 3182 MAIL CERTIFICATE OF DISPOSAL TO OCHOA AND GENERATOR
SH#: 482 CONTAINER#:

EMERGENCY PHONE : (787) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDEZ

33. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
BRIAN F WRIGHT	[signature]	06 06 96

34. Transporter ____ Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

35. Discrepancy Indication Space
MARTHA HAMILTON [illegible] 11 [illegible]

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY C THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 96008

2. Page 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 ~~D018, D039~~) (ERG #27)	007	DM	00079	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

RECEIVED JUL 19 1996 ACCOUNTING DEPT.

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: Milton Rosa — Month Day Year: 06 14 96

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Kiomen Diaz Gonzalez — Signature: [signature] — Month Day Year: 06 14 96

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Norbert Rodriguez — Signature: Norbert Rodriguez — Month Day Year: 06 14 96

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 96009

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PR 62-1232
CARRETERA 690, KM 1.1, BARIO SUBANO
VEGA ALTA, PR 00692

4. Generator's Phone (787) 883-5800 PO # 004915

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. RQ, WASTE FLAMMABLE LIQUIDS, N.O.S., (N-BUTYL ALCOHOL & ALIPHATIC HYDROCARBONS), 3, UN1993, PGIII (EPA, ~~D001, F003~~) (RQ100)	002	DM	00110	G	(D001) F003
b. NOT A DOT REGULATED MATERIAL, NOT AN EPA HAZARDOUS WASTE	002	DM	00110	G	N/A
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) CONTROL # 2606775, ERG # 27.
b) CONTROL # 2606774.

K. Handling Codes for Wastes Listed Above
S01, S02, T50, T76

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (787) 883-5800 /TSDF (809)854-1090

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If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): MILTON ROSA — Signature: Milton Rosa — Month Day Year: 06 20 96

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: RAUL VARELA — Signature: Raul Varela — Month Day Year: 06 20 96

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year: 06 20

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 960110

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	003	DM	00047	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: [signature] — Month Day Year: 07 03 96

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Diaz Gonzalez — Signature: [signature] — Month Day Year: 07 03 96

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Maribel Rodriguez — Signature: Maribel Rodriguez — Month Day Year: 07 03 96

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO

ENVIRONMENTAL QUALITY BOARD

Environmental Quality Board

P.O. Box 11488, Santurce, Puerto Rico 00910

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se print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved, OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 9160111

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

A. State Manifest Document Number

B. State Generator's ID

4. Generator's Phone (809) 883-5800 ACC. 5135

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018~~, ~~D039~~) (ERG #27)	001	DM	000181	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
[illegible]	[signature]	1 12 12 16

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	10 12 12 16

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	10 12 12 16

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: [illegible]
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone: (809) 883-5800 ACC. 5135

A. State Manifest Document Number:
B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701
10. US EPA ID Number: PRD090399718
G. State Facility's ID:
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, [redacted], [redacted]) (ERG #[redacted]) 128.	007	DM	00098	G	D001 [redacted]
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE [redacted] 128

K. Handling Codes for Wastes Listed Above:
S01 S02 T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn. In addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital: if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): *Juan Pérez Del Valle
Signature: Juan Pérez Del Valle
Month Day Year: 08 12 1996

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: RICARDO DIAZ GONZALEZ
Signature: [signature]
Month Day Year: 08 12 1996

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name:
Signature:
Month Day Year:

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 96013

2. Page 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone: (809) 883-5800 — ACC. 5135

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID:

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D035~~) (ERG #[redacted] 128.	007	DM	00119	G	D001 ~~D018~~ ~~D035~~
b.					
c.					
d.					

I. Additional Descriptions for Materials Listed Above:
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE [redacted]) 128

K. Handling Codes for Wastes Listed Above:
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): * Milton Rosa — Signature: [signature] — Month Day Year: 100296

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 100296

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility, Owner, or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Nat bel Rodríguez — Signature: [signature] — Month Day Year: 100296

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0438

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: P R D 0 9 0 4 9 0 2 8 5 9 6 0 1 4
Manifest Document No.:

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PR
P.O. BOX 387 (CARR. 690 KM 1.1)
VEGA ALTA, P.R. 00692
62-1232

4. Generator's Phone (787) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (787) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico, 00674

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

G. State Facility's ID

H. Facility's Phone: (787) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. RQ, WASTE CAUSTIC ALKALI LIQUIDS, N.O.S. (SODIUM HYDROXIDE), 8, UN1719, PGII, (EPA, D002, D007) (RQ100)	011	DF	01160	G	(D007), D002
b. RQ, HAZARDOUS WASTE, LIQUID, N.O.S., (BENZENE), 9, NA3082, PGIII, (EPA, D018) (RQ10)	CD9	DF	01074	G	D018
c. RQ, HAZARDOUS WASTE, SOLID, N.O.S., (CHROMIUM), 9, NA3077, PGIII, (EPA, D007) (RQ100)	011	DF	01415	G	D007
d.					

J. Additional Descriptions for Materials Listed Above
a) CONTROL # 2611440, ERG #154.
b) CONTROL # 2611512. ERG #171.
c) CONTROL # 2611441. ERG #171.
55 GLS IN 85 GLS OVER-PACKED.

K. Handling Codes for Wastes Listed Above
a),b) S01, S02, T50, T54
c) S01, S02, T50, T81

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (787) 883-5800 /TSDF (787)854-1090

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I and a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
MILTON ROSA		11	04	96

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Carlos R. Picon	Carlos R. Picon	11	04	96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	11	04	96

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE L ONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 76015

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 — ACC. 5135

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Mariati, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID:

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #~~27~~ 128.	007	DM	00084	G X	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE ~~27~~ 128.

K. Handling Codes for Wastes Listed Above: S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): Milton Risa — Signature: [signature] — Month Day Year: 11 22 96

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Diaz Gonzalez — Signature: [signature] — Month Day Year: 11 22 96

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Maribel Rodriguez — Signature: [signature] — Month Day Year: 11 22 96

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

CP-2967-89

Environmental Quality Board

P.O. Box 11488, Santurce, Puerto Rico 00910

3

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 15101V

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL. DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 ~~D018-D043~~) (ERG #27) ~~(D006, D008, D035, D040)~~	0 0 7	D M	0 0 0 5 4	G	D001 D006 D008 D018 D035 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
* Magda I. Bermúdez	Magda I. Bermúdez	0 1	1 1	9 5

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Rimmie Díaz González		0 1	1 1	9 5

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jeffrey L. Stevens		0 1	1 1	9 5

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box [illegible], Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.: P R D 0 9 0 4 9 0 2 8 5 [illegible] 5002

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, PR 00762
4. Generator's Phone (809) 725-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701
10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001, ~~D018, D039~~) (ERG #27) 2/7/95	007	DM	00059	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 725-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): * Magda I. Bermúdez
Signature: Magda I Bermúdez
Month Day Year: 02 07 95

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Díaz González
Signature:
Month Day Year: 02 07 95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name:
Signature:
Month Day Year:

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jeffrey L. Stevens
Signature:
Month Day Year: 02 07 95

GENERATOR

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

Environmental Quality Board

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

OCHOA ENVIRONMENTAL SERVICES

Form Approved. OMB No. 2050-0039.

Print or type. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. PRD090[illegible] Manifest Document No. [illegible]

2. Page 1 of [illegible]

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-
4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name OCHOA INDUSTRIAL SALES CORP.
6. US EPA ID Number PRD090126562

C. State Transporter's ID HW-21

D. Transporter's Phone 809/782-5000

7. Transporter 2 Company Name CROWLEY AMERICAN TRANSPORT
8. US EPA ID Number PRD090559360

E. State Transporter's ID

F. Transporter's Phone 809/721-1313

9. Designated Facility Name and Site Address
LAIDLAW ENV. SERV. (TS), INC.
5300 126TH AVENUE NORTH
CLEARWATER, FL 34820-
10. US EPA ID Number FLD981474802

G. State Facility's ID

H. Facility's Phone (813) 573-1405

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. HAZARDOUS WASTE SOLID, N.O.S., Contains (CRUMIUM), 9, NA3077, PG III. (D004, D005, D007, D008)	058	DM	3 BVD	P	D004, D005 D007, D008
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
(a) CWOIL-001, CHECKER DUST

K. Handling Codes for Wastes Listed Above
(a) ~~D81~~ 50, 1 HIGH
HRC 3/9/95

15. Special Handling Instructions and Additional Information
JOB#:2156
SH#: 371 CONTAINER#: TEXU 4962383
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MASDA BERMUDEZ

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway and water according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Magda I. Bermúdez
Signature: Magda I. Bermúdez
Month Day Year: 02 08 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID SÁNCHEZ
Signature: David Sánchez
Month Day Year: 02 08 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Aurelio Rodriguez
Signature: [illegible]
Month Day Year: 02 10 95

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Hector R Cochran
Signature: Hector R Cochran
Month Day Year: 02 08 95

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CA[illegible] THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COPY 3 GENERATOR - MAILED BY TSDF

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

(Form designed for use on elite (pitch) typewriter.)

Form Approved OMB No 2050-0039

FORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal law.
	[illegible]	[illegible]	[illegible]	

23. Generator's Name
OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

L. State Manifest Document Number

M. State Generator's ID

24. Transporter ___ Company Name: TERRA FIRST INC

25. US EPA ID Number: ALD 981023492

N. State Transporter's ID

O. Transporter's Phone: 815 147 52933

26. Transporter ___ Company Name

27. US EPA ID Number

P. State Transporter's ID

Q. Transporter's Phone

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
JOB#:2156
SH#: 371 CONTAINER#: Texy 4962383

EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDEZ

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
William Woolford	William Woolford	03 07 95

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

Environmental Quality Board

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

OCHOA ENVIRONMENTAL SERVICES

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. PRD090[illegible] — Manifest Document No. [illegible]

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
OCHOA INDUSTRIAL SALES CORP.

6. US EPA ID Number PRD090128562

C. State Transporter's ID HW-21

D. Transporter's Phone 809/788-8000

7. Transporter 2 Company Name
CROWLEY AMERICAN TRANSPORT

8. US EPA ID Number PRD090559360

E. State Transporter's ID

F. Transporter's Phone 809/721-1313

9. Designated Facility Name and Site Address
LAIDLAW ENV. SERV. OF BARTOW
170 BARTOW MUNICIPAL AIRPORT
BARTOW, FL- 33630-

10. US EPA ID Number FLD980729610

G. State Facility's ID

H. Facility's Phone (813) 533-6111

	US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	WASTE PAINT RELATED MATERIAL, 3, UN1263, PG III, (F003)	00B	DM	0V6BD	P	F003
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
(a) TRSI-20253, XYLENE, 1-BUTANOL

K. Handling Codes for Wastes Listed Above
(a) T50, T16

15. Special Handling Instructions and Additional Information
JOB#: 2156
SH#: 371 CONTAINER#: Texu 4962383
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDEZ

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway and water according to applicable international and national government regulations.
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Printed/Typed Name: Magda I. Bermudez — Signature: Magda I. Bermudez — Month Day Year: 02 09 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID SANCHEZ — Signature: David Sanchez — Month Day Year: 02 09 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Aurelio Rodriguez — Signature: [illegible] — Month Day Year: 02 14 95

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Keith B. Moore — Signature: Keith B. Moore — Month Day Year: 05 16 95

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COPY 3 GENERATOR - MAILED BY TSDF

EPA Form 8700-22 (Rev 9-88) Previous editions are obsolete.

Please print or type. (Form designed for use on elite (pitch) typewriter.)

Form Approved OMB No 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. PRD090490285	Manifest Document No. 95004	22. Page 1 of 2	Information in the shaded areas is not required by Federal law.

23. Generator's Name
OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA. PR 00692-

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 2 Company Name: TEXRA FIRST
25. US EPA ID Number: ALD981823492

N. State Transporter's ID

O. Transporter's Phone: 813 4252783

26. Transporter 4 Company Name: LAIDLAW ENV. SER. (TS) INC.
27. US EPA ID Number: MDD-980554653

P. State Transporter's ID

Q. Transporter's Phone: 813/573-1405

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
JOB#: 2156
SH#: 371 CONTAINER#: TEXU 4962383
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDEZ

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
William Woolford	William Woolford	03 07 95

34. Transporter 4 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
Eddie A. Osborne	Eddie A. Osborne	03 16 95

35. Discrepancy Indication Space

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

Environmental Quality Board

ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

3

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 95005
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL. DE P.R.
BOX 387
VAGA ALTA, P.R. 00692

4. Generator's Phone (809) 833-5800

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701
10. US EPA ID Number: PRD090399718
G. State Facility's ID
H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27) ~~(D006, D008, D035, D040)~~	007	DM	00045	1	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

3/9/95

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 833-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Magda I. Bermúdez — Signature: Magda I. Bermúdez — Month Day Year: 03 09 95

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year: 03 09 95

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jeffrey L. Stevens — Signature: [illegible] — Month Day Year: 03 09 95

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOAR

Environmental Quality Board

P.O. Box 11488, Santurce, Puerto Rico 00910

3

Pler

Print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 9700016

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R.
CARR. 690
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001 ~~D018, D035~~) (ERG #27)	001	DM	00087	G	D001 ~~D018~~ ~~D035~~
b.					
c.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): Hagda I. Bermudez — Signature: Magda I Bermudez — Month Day Year: 04 18 95

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 04 18 95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 04 18 95

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

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Environmental Quality Board

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Form Approved: OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 451007

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL. DE P.R.
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 835-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, D018, D039) (ERG #27)	001	DM	00091	G	D001 D018 D039
b.					
c.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T53

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual exposure: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 833-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Salvador Muniz — Signature: [signature] — Month Day Year: 05 10 95

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [signature] — Month Day Year: 05 10 95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 05 10 95

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type: (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 1 2 8 1 5 — Manifest Document No. 9 5 7 0 0 1 8

2. Page 1 of — Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
OWENS-ILL. DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 835-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8

G. State Facility's ID

H. Facility's Phone (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001, ~~D018, D039~~) (ERG #27)	0 0 7	D M	0 0 0 0 1 2	G	D001
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information: In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 835-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF) Magda L. Bermudez — Signature Magda L. Bermudez — Month Day Year 06 08 95

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name Ramon Rivera Ruiz — Signature — Month Day Year 06 10 95

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name Jeffrey L. Stevens — Signature — Month Day Year 06 08 95

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

ase print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 95007

2. Page 1 of — Information in the shaded areas is not required by Federal

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692
4. Generator's Phone (809) 835-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8
G. State Facility's ID
H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	007	DM	30101	G	D001 D018 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) 835-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
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Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
Magda I. Bermudez	Magda I. Bermudez	07 06 95

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Ricardo Diaz Gonzalez		07 06 95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
Jeffrey [illegible]		07 06 95

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE E[illegible]

NMENTAL QUALITY BOARD (809) 722-0439

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: [illegible]
2. Page 1 of 2 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: OWENS ILLINOIS OF PR, KM 1.1 ROUTE 690, BARIO SABANA HOYOS, VEGA ALTA PR 00692
4. Generator's Phone (809) 883-5800

A. State Manifest Document Number: NJA 1605439
B. State Generator's ID: KM 1.1 ROUTE 690, VEGA ALTA, PR 00692

5. Transporter 1 Company Name: ENVIRONMENTAL TRANSFER CORP
6. US EPA ID Number: PRD987381746
C. State Trans. ID: HW-57
D. Transporter's Phone (809) 720-3500

7. Transporter 2 Company Name: JUAN E. HERNANDEZ
8. US EPA ID Number: PRD090320732
E. State Trans. ID: HW-12

9. Designated Facility Name and Site Address: ADVANCED ENVIRONMENTAL TECHNOLOGY CORPORATION, 1 EDEN LANE, FLANDERS, NJ 07836
10. US EPA ID Number: NJD980536593
F. Transporter's Phone (809) 881-1266
G. State Facility's ID: N/A
H. Facility's Phone (201) 347-1909

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	X	HAZARDOUS WASTE, SOLID, n.o.s. 9,NA3077,III	012	DF	00240	P	D009
b.		[illegible]					
c.		[illegible]					
d.							

J. Additional Descriptions for Materials Listed Above: S/E USED FLUORESCENT LAMPS
K. Handling Codes for Wastes Listed Above: S 6 1

15. Special Handling Instructions and Additional Information: [illegible] CATALOGUE CERTIFICATION EMERGENCY PHONE 800-535-5053
EMERGENCY AT SEA CONTACT U.S. COAST GUARD AT 1-800-424-8802.UC42975
TRAILER# REAZ 630520 BOOKING CATA 71277 VESSEL ~~[illegible]~~ Ponu 29 SEAL # 20895

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
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Printed/Typed Name: MAGDA BERMUDEZ — Signature: Magda J. Bermudez — Month Day Year: 07 07 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: RAMON A. VARGAS — Signature: R. A. Vargas — Month Day Year: 07 07 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jose L. Berrios 07/24/95 — Signature: [illegible] — Month Day Year: 07 24 95

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year: 08 11 95

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 202-7172

(Use for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039 Expires 9-30-91

HAZARDOUS MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No.	Manifest Document No.	22. Page	Information in the shaded areas is not required by Federal law.
	PRD090490285	95010	2 of 2	

23. Generator's Name: Owens Illinois of P.R. (809) 883-5800 Km 1.1 Route 690 Barrio Sabana Hoyos Vega Alta P.R. 00692	L. State Manifest Document Number: NJA 160 54 39
	M. State Generator's ID: Km. 1.1 Route 690 Vega Alta P.R. 00692
24. Transporter (3) Company Name: Crowley American Transport	25. US EPA ID Number: PRD090559360
	N. State Trans. ID: PRD090559360
	O. Trans. Phone: (809) 729-1000
26. Transporter (4) Company Name: Nappi Trucking Corp	27. US EPA ID Number: NJD000813477
	P. State Trans. ID: NJDEPS 10342
	Q. Trans. Phone: (908) 566-3000

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
j.						

For Transporter #3 and #4 Use Only

GENERATOR: Magda J. Parmida

Magda J. Parmida

29. Additional Descriptions for Materials Listed Above	T. Handling Codes for Wastes Listed Above
	RECEIVED - AETC 8/11/95

32. Special Handling Instructions and Additional Information

For Transporter #3 and #4 Use Only
-1-800-535-5053- Docal-68577

TRANSPORT

33. Transporter (3) Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
Aurelio Rodriguez	[signature]	07 24 95

34. Transporter (4) Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
DON F. Wear	Don F. Wear	08 11 95

FACILITY

35. Discrepancy Indication Space

3 — TSD MAIL TO - GENERATOR

EPA Form 8700-22A (Rev. 9-86) Previous edition is obsolete

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-30-9

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. PRD090490285 | Manifest Document No. 95010 | 2. Page 1 of 2 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS OF PR
KM 1.1 ROUTE 690
BARIO SABANA HOYOS
VEGA ALTA PR 00692

4. Generator's Phone (809 883-5800

A. State Manifest Document Number: **NJA 1605439**

B. State Generator's ID
KM 1.1 ROUTE 690
VEGA ALTA, PR 00692

5. Transporter 1 Company Name: ENVIRONMENTAL TRANSFER CORP
6. US EPA ID Number: PRD987381746
C. State Trans. ID: HW-57

7. Transporter 2 Company Name: JUAN E. HERNANDEZ
8. US EPA ID Number: PRD090220732
D. Transporter's Phone (809) 720-3500
E. State Trans. ID: HW-12

9. Designated Facility Name and Site Address
ADVANCED ENVIRONMENTAL TECHNOLOGY CORPORATION
1 EDEN LANE
FLANDERS, NJ 07836
10. US EPA ID Number: NJD980536593
F. Transporter's Phone (809) 881-1266
G. State Facility's ID: N/A
H. Facility's Phone 201)347-1909

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. HAZARDOUS WASTE, SOLID, n.o.s. 9,NA3077,III	X	012	DF	00240	P	D009
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
a. S/E USED FLUORESCENT LAMPS
b.
c.
d.

K. Handling Codes for Wastes Listed Above
a. 501
b.
c.
d.

PACKING LISTS ATTACHED FOR CLARIFICATION EMERGENCY PHONE 800 535-5053
EMERGENCY AT SEA CONTACT U.S. COAST GUARD AT 1-800-424-8802.UC42975

TRAILER# BOOKING VESSEL SEAL

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: MAGDA BERMUDEZ | Signature: Magda J. Bermudez | Month 07 Day 19 Ye

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: RAMON A. VARGAS | Signature: R. A. Vargas | Month 07 Day 19 Ye

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Ye

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name | Signature | Month Day Ye

In case of an emergency or spill immediately call the state the emergency occurred in and the N.J. Dept. of Environmental Protection and Energy. (609) 292-7172

Form Approved OMB No. 2050-0039 Expires 9-30-91

Print or type (Form designed for use on elite (12 pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	2. Generator's US EPA ID No.	Manifest Document No.	4. Page
	PRD090490285	95010	2 of 2

23. Generator's Name: Owens Illinois of P.R. Km 1.1 Route 690 Barrio Sabana Hoyos Vega Alta P.R. 00692 (809) 883-5700

L. State Manifest Document Number: NJA 160 54 39

M. State Generator's ID: Km. 1.1 Route 690 Vega Alta P.R. 00692

24. Transporter (3) Company Name: Crowley American Transport

25. US EPA ID Number: PRD090559360

N. State Trans. ID: PRD090559360

O. Trans. Phone: (809) 729-1000

26. Transporter (4) Company Name: Nappi Trucking Corp

27. US EPA ID Number: NJD000813477

P. State Trans. ID: NJDEPS 10342

Q. Trans. Phone: (908) 566-3000

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) | 29. Containers No. | Type | 30. Total Quantity | 31. Unit Wt/Vol | F. Waste No.

	HM		No.	Type	Total Quantity	Unit Wt/Vol	Waste No.
a.							
b.							
c.							
d.		For Transporter #3					
e.		and #4 Use Only					
f.							
g.							
h.							
i.							

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information

For Transporter #3 and #4 Use Only

33. Transporter (3) Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date Month Day Year

34. Transporter (4) Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

35. Discrepancy Indication Space

Magda J. Fernandez

GENERATOR

TRANSPORTER

FACILITY

6 — GENERATOR MAIL TO - TSD'S STATE

EPA Form 8700-22A (Rev. 9-86) Previous edition is obsolete

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law
P R D 0 9 0 4 9 0 2 8 5	7501 1		

3. Generator's Name and Mailing Address
OWENS-ILLINOIS DE P.R.
BOX 387
VEGA ALTA, P.R. 00692
4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number
P R D 0 9 0 3 9 9 7 1 1 8

C. State Transporter's ID HW-02

D. Transporter's Phone (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number
P R D 0 9 0 3 9 9 7 1 1 8

G. State Facility's ID

H. Facility's Phone
(809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 ~~D018, D039~~) (ERG #27)	001	DM	00091	G	D001 ~~D018 D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
		08/17/95

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Ricardo Diaz Gonzalez		08/19/95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month Day Year
Jeffrey L. Stevens		08/19/95

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

ACC # 5135

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved: OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 45012
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE P.R.
BOX 387
VEGA ALTA, P.R. 00692
4. Generator's Phone (809) 883-5800

A. State Manifest Document Number:
B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: PRD090399718
G. State Facility's ID:
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	0107	DIM	010617	P	D001 D018 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above:
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): [illegible] Rosa — Signature: [illegible] — Month Day Year: 08 28 95

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: [illegible] Diaz Gonzalez — Signature: [illegible] — Month Day Year: 08 28 95

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jeffrey L. Stephens — Signature: [illegible] — Month Day Year: 08 29 95

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. / Manifest Document No.: P|R|D|0|9|0|4|9|0|2|8|5|9|5|0|1|3
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R.
P.O. BOX 387 (RD. 690, KM 1.1, BO. SABANO)
VEGA ALTA, P.R. 00692
62-1232
4. Generator's Phone (809) 883-5800
P.O. #2604

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name
SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: P|R|D|0|9|0|3|9|9|7|1|8
C. State Transporter's ID: HW-02
D. Transporter's Phone (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: P|R|D|0|9|0|3|9|9|7|1|8
G. State Facility's ID
H. Facility's Phone (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. NOT A DOT REGULATED MATERIAL, NOT AN EPA HAZARDOUS WASTE	001	TT	06500	G	N/A
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) CONTROL #1507524.
DAWA #1231

K. Handling Codes for Wastes Listed Above
S02, T50, T16

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information: In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital: If not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
MILTON ROSA	Milton Rosa	10	19	95

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Raul Varela	Raul Varela	10	19	95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Adelaida Santiago	Adelaida Santiago	10	19	95

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

Environmental Quality Board

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

OCHOA ENVIRONMENTAL SERVICES

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. PRD090490286 Manifest Document No. 95014

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address [illegible]
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.

6. US EPA ID Number: PRD090128552

C. State Transporter's ID: HW-21

D. Transporter's Phone: 809/788-8002

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT

8. US EPA ID Number: PRD090359369

E. State Transporter's ID

F. Transporter's Phone: 809/721-1313

9. Designated Facility Name and Site Address
LAIDLAW ENV. SERV. OF BARTOW
170 BARTOW MUNICIPAL AIRPORT
BARTOW, FL 33330-

10. US EPA ID Number: FLD980729618

G. State Facility's ID

H. Facility's Phone: (813) 533-6111

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE POISONOUS LIQUID, N.O.S., Contains (METHYLENE CHLORIDE), 6.1, UN2810, PG II, (F002)		001	P	00500	P	F002
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
(a) TRSI-31268: RAGS WITH METHYLENE CHLORIDE

K. Handling Codes for Wastes Listed Above
(a) M043

15. Special Handling Instructions and Additional Information
JOB#: 2619 MAIL CERTIFICATE OF DISPOSAL TO OCHOA AND GENERATOR
SH#: CONTAINER#: ERG#:55
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT :SALVADOR MURIEL

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway and water according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Milton Rosa | Signature: [signature] | Month Day Year: 08 26 95

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: David Sanchez | Signature: [signature] | Month Day Year: 08 26 95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Shirein Rodriguez | Signature: [signature] | Month Day Year: 08 26 95

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: MARTHA HAMILTON | Signature: Martha Hamilton | Month Day Year: 08 26 95

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CAL E-ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete

Print or type. (Form designed for use on elite (12-pitch) typewriter)

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator's US EPA ID No.	Manifest Document No	22. Page	Information in the shaded areas is not required by Federal law.
PRD980=80265	9582	2/2	

23. Generator's Name
OWENS ILLINOIS
ROAD 690 KM 1.1 BO. 357
VEGA ALTA, PR 00692-

L. State Manifest Document Number

M. State Generator's ID

24. Transporter 3 Company Name
LAIDLAW ENV. SERV. OF BARTOW

25. US EPA ID Number
FLD980729563

N. State Transporter's ID

O. Transporter's Phone 813/533-6111

26. Transporter 4 Company Name
Environmental Transportation Sys.

27. US EPA ID Number
DKT9816003263

P. State Transporter's ID

Q. Transporter's Phone 405-677-2221

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	29. Containers No.	29. Containers Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
~~JOB#:-2615~~ MAIL CERTIFICATE OF DISPOSAL TO OCHOA AND GENERATOR
SH#: CONTAINER#: ERS#:55

EMERGENCY PHONE : (809) 863-5809 EMERGENCY CONTACT :SALVADOR MURIEL

TRANSPORTER

33. Transporter 3 Acknowledgement of Receipt of Materials
Printed/Typed Name: KARYN Hutchinson
Signature: Karyn Hutchinson
Date: Month 10 Day 11 Year 95

34. Transporter 4 Acknowledgement of Receipt of Materials
Printed/Typed Name: JEFFEY B. Huston
Signature: Jeffrey B. Huston
Date: Month 11 Day 14 Year 95

FACILITY

35. Discrepancy Indication Space

GENERATOR

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL ENVIRONMENTAL QUALITY BOARD (809) 722-0439

This is for tracking purposes.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039; Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 1 9 0 4 9 0 2 8 5 — Manifest Document No. 75015 — 2. Page — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL DE PR
BOX 387
VEGA ALTA, PR 00692
4. Generator's Phone (809) 883-5800

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R. — 6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name — 8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701
10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 1 8
G. State Facility's ID
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	007	DM	010066	G P	D001 ~~D018 D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A. CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators which are capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injured: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital. If not call Emergency Medical Care.
24 hours Emergency response information number (809) 883-5800
/TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
[illegible]	[signature]	09 25 95

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	09 25 95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
[illegible]	[signature]	09 25 95

GENERATOR — IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
PRD090490285950116			

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R. 62-1232
P.O. BOX 387 (RD. 690 KM 1.1, BO. SABANA)
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
US EPA ID Number: PRD090391971 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: PRD090391971 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. NOT A DOT REGULATED MATERIAL, NOT AN EPA HAZARDOUS WASTE	001	TT	06540	G	N/A
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) CONTROL #1507524. T/T 1241

K. Handling Codes for Wastes Listed Above
S02, T50, T26

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
MILTON ROBA		09	26	95

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Felipe Febles		09	26	95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Adelaida Santiago		09	26	95

GENERATOR — IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE E. JNMENTAL QUALITY BOARD (809) 722-0439

TRANSPORTER

FACILITY

EPA Form 8700-22 (Rev. 3-89) Previous edition is obsolete

SKE-4

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COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD

Environmental Quality Board

P.O. Box 11488, Santurce, Puerto Rico 00910

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: RSOY 17

2. Page 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone: (809) 883-5800 ACC. 5135

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID:

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D029~~) (ERG #27)	007	DM	00084	g	D001 ~~D018~~ ~~D029~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
AT CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above:
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): [illegible] Rosa — Signature: [illegible] — Month Day Year: 10 25 95

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: [illegible] Diaz Gonzalez — Signature: [illegible] — Month Day Year: 10 25 95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Maribel Rodriguez — Signature: Maribel Rodriguez — Month Day Year: 10 25 95

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 95018

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27) ~~(D006, D008, D035, D040)~~	007	DIM	00086	9	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): X Milton Rosa — Signature: Milton Rosa — Month Day Year: 1/21/95

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Díaz Gonzalez — Signature: [signature] — Month Day Year: 1/21/95

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: Maribel Rodriguez — Signature: Maribel Rodriguez — Month Day Year: 1/21/95

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
Environmental Quality Board
P.O. Box 11488, Santurce, Puerto Rico 00910

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Use print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 5 5 6 7 9

2. Page 1 — Information in the shaded areas: is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R.
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800 ACC. 5135

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, D018, D039) (ERG #27)	0 0 7	D M	0 0 0 0 1 2	G P	D001 D018 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.
24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
M. Ho. ROSA		1	2	95

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Armando Rivera Avilés		1	2	95

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Mgr. Bol Rodríguez		1	24	95

GENERATOR

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 94001
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00762
4. Generator's Phone (809) 725-5800

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701
10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8
G. State Facility's ID
H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 ~~D018, D039~~) (ERG #27)	007	DM	00050	G	D001 ~~D018 D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual exposure: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; If not call Emergency Medical Care.

24 hours Emergency response information number (809) 725-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
Magda I. Bermudez	Magda I. Bermudez	01	19	94

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ricardo Diaz Gonzalez		01	19	94

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jeffrey L. Stevens		01	19	94

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.
PRD090490285	94012
2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL. DE PUERTO RICO
CARR 690, BOX 387
VEGA ALTA, PR. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number
PRD093997118

C. State Transporter's ID HW-02

D. Transporter's Phone (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number
PRD093997118

G. State Facility's ID

H. Facility's Phone
(809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	5106	DM	000086	G	D001 D018 D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
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24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

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Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
Magda I. Bermudez	Magda I. Bermudez	02	14	94

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ricardo Diaz Gonzalez		02	14	94

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19:

Printed/Typed Name	Signature	Month	Day	Year
Jeffrey L. Stevens		02	14	94

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

LAIDLAW ENVIRONMENTAL FAX NO. 18135726379 P.01

Environmental Quality Board

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

OCHOA ENVIRONMENTAL SERVICES

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 740023

2. Page 1 of 2

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: ATT: ENG. MAGDA BERMUDEZ
OWENS ILLINOIS OF P.R.
BOX 387 VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number: SAME AS ITEM #1

B. State Generator's ID: SAME AS ITEM #1

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.

6. US EPA ID Number: PRD090128562

C. State Transporter's ID: HW-21

D. Transporter's Phone: (809)788-8000

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT

8. US EPA ID Number: PRD090559360

E. State Transporter's ID:

F. Transporter's Phone: (809)721-1313

9. Designated Facility Name and Site Address: LAIDLAW ENVIRONMENTAL SERVICES (TS) INC.
5303 126TH AVENUE NORTH
CLEARWATER, FLORIDA 34620

10. US EPA ID Number: FLD981474802

G. State Facility's ID:

H. Facility's Phone: (813)573-1405

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	HAZARDOUS WASTE SOLID,N.O.S.(CONTAINS ARSENIC, CADMIUM, CHROMIUM AND LEAD),9, NA 3077 PGIII (D004,D008,D007,D006)	070	DM	35580	P	D004,D008 D007,D006
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above: 11a.CWOIL-001: CHECKER DUST

K. Handling Codes for Wastes Listed Above: 11a:S01/D81

15. Special Handling Instructions and Additional Information
JOB#: 1343
SH#: 369
CONTAINER#: GSTU 6690850

24HR EMERGENCY PHONE#: (809)883-5800
CHEMTRECT 1-800-424-9300
EMERGENCY CONTACT: ENG. MAGDA BERMUDEZ

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway and water according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: Magda I. Bermúdez — Signature: Magda I. Bermúdez — Month Day Year: 03 03 94

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JUAN A. CAMACHO — Signature: [signature] — Month Day Year: 03 03 94

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: HECTOR ROMAN — Signature: [signature] — Month Day Year: 03 04 94

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Paul A. Leiser — Signature: Paul A. Leiser — Month Day Year: 03 16 94

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

GENERATOR / TRANSPORTER / FACILITY

COPY 1 DISPOSER STATE - MAILED BY TSDF

EPA Form 8700-22 (Rev. 3-88) Previous editions are obsolete

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST *(Continuation Sheet)*

21. Generator's US EPA ID No.: PRD 090490285

Manifest Document No: 94003

22. Page: 2 of 2

Information in the shaded areas is not required by Federal law.

23. Generator's Name
OWENS ILLINOIS OF P.R.
BOX 387 VEGA ALTA, PR. 00692
(809)883-5800

L. State Manifest Document Number: SAME AS ITEM #21

M. State Generator's ID: SAME AS ITEM #21

24. Transporter 3 Company Name: LAIDLAW ENV.SERV. OF BARTOW

25. US EPA ID Number: FLD 980729610

N. State Transporter's ID:

O. Transporter's Phone: (813)533-6111

26. Transporter ___ Company Name:

27. US EPA ID Number:

P. State Transporter's ID:

Q. Transporter's Phone:

	28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
JOB#: 1395
SH#: 269
CONTAINER#: GSTU 6690850

TRANSPORTER

33. Transporter 3 Acknowledgement of Receipt of Materials

Printed/Typed Name: Harry Hutchinson

Signature: Harry Hutchinson

Date: Month 03 Day 15 Year 94

34. Transporter ___ Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date: Month Day Year

FACILITY

35. Discrepancy Indication Space

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

GENERATOR

Environmental Quality Board

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

OCHOA ENVIRONMENTAL SERVICES

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Form Approved. OMB No. 2050-0039.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 9140014
2. Page 1 of 2
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: ATT: ENG. MAGDA BERMUDEZ
OWENS ILLINOIS OF P.R.
BOX 387 VEGA ALTA, P.R. 00692
4. Generator's Phone (809) 883-5800

A. State Manifest Document Number: SAME AS ITEM #1
B. State Generator's ID: SAME AS ITEM #1

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.
6. US EPA ID Number: PRD090128562
C. State Transporter's ID: HW-21
D. Transporter's Phone: (809)788-8000

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT
8. US EPA ID Number: PRD095059360
E. State Transporter's ID:
F. Transporter's Phone: (809)721-1313

9. Designated Facility Name and Site Address: LAIDLAW ENVIRONMENTAL SERVICES (TS) INC.
5303 126TH AVENUE NORTH
CLEARWATER, FLORIDA 34620
10. US EPA ID Number: FLD981417408
G. State Facility's ID:
H. Facility's Phone: (813)573-1405

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	HAZARDOUS WASTE SOLID,N.O.S.(CONTAINS ARSENIC, CADMIUM, CHROMIUM AND LEAD).9, NA 3077 PGIII (D004,D008,D007,D006)	0150	DM	27/2140	P	D004,D008, D007,D006
b.							
c.							
d.							

J. Additional Descriptions for Materials Listed Above: 11a.CWOIL-001: CHECKER DUST

K. Handling Codes for Wastes Listed Above: 11a. S01/D81 M141

15. Special Handling Instructions and Additional Information
JOB#: 1344
SH#: 2764
CONTAINER#: IWKU 2731109
24HR EMERGENCY PHONE#: (809)883-5800
CHEMTRECT 1-800-424-9300
EMERGENCY CONTACT: ENG. MAGDA BERMUDEZ

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway and water according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Magda I. Bermúdez	Magda I. Bermúdez	10	31	94

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JUAN A. Camacho		10	31	94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
HECTOR ROMAN		10	31	94

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Hector R Cochran	Hector R Cochran	11	1	94

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL ENVIRONMENTAL QUALITY BOARD (809) 722-0439

(...designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator's US EPA ID No. PRD 090490285	Manifest Document No 94004	22. Page 2 of 2	Information in the shaded areas is not required by Federal law.

23. Generator's Name
OWENS ILLINOIS OF P.R. ATT: ENG. MAGDA BERMUDEZ
BOX 387 VEGA ALTA, P.R. 00692
(809)883-5800

L. State Manifest Document Number: SAME AS ITEM #21
M. State Generator's ID: SAME AS ITEM #21

24. Transporter 3 Company Name: LAIDLAW ENV. SERV. OF BARTOW
25. US EPA ID Number: NJD 054126164
N. State Transporter's ID:
O. Transporter's Phone: (813)533-4599

26. Transporter ___ Company Name:
27. US EPA ID Number:
P. State Transporter's ID:
Q. Transporter's Phone:

28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		29. Containers No.	Type	30. Total Quantity	31. Unit Wt/Vol	R. Waste No.
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						

S. Additional Descriptions for Materials Listed Above

T. Handling Codes for Wastes Listed Above

32. Special Handling Instructions and Additional Information
JOB#: 1344
SH#: 270
CONTAINER#: INKU 2731109

33. Transporter 3 Acknowledgement of Receipt of Materials
Printed/Typed Name: CLEFJ Trans
Signature: [signature]
Date: Month 03 Day 1 Year 94

34. Transporter ___ Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Date: Month Day Year

35. Discrepancy Indication Space Item 24: Laidlaw Environmental Services
25: MDD 980554653

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

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Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 4665
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS-ILLINOIS DE PUERTO RICO
P.O. BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809)883-5800

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.
6. US EPA ID Number: PRD090399718
C. State Transporter's ID: HW-02
D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701
10. US EPA ID Number: PRD090399718
G. State Facility's ID
H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27) 3/14/94	006	DIM	00074	G	D001 ~~D018~~ ~~D039~~ 3/14/94
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): x Magda I Bermúdez — Signature: Magda I. Bermúdez — Month Day Year: 03 14 94

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Diaz Gonzalez — Signature: [signature] — Month Day Year: 03 14 94

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 03 14 94

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

Environmental Quality Board

ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

3

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P|R|D|0|9|0|4|9|0|2|8|5 — Manifest Document No. 91410016

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL. DE PUERTO RICO
CARR. 690, BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone (809) 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P|R|D|0|9|0|3|9|9|7|1|8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P|R|D|0|9|0|3|9|9|7|1|8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 ~~D018 D039~~) (ERG #27)	006	DM	00094	G	D001 ~~D018 D039~~
b.					
c.					
d.					

I. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
Magda I. Bermúdez	Magda I. Bermúdez	04	11	94

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Ricardo Díaz González		04	11	94

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Jeffrey L. Stevens		04	11	94

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 940007

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00762 (809) 725-5800

4. Generator's Phone

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001 ~~D018 D039~~ (ERG #27)	506	DIM	00079	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 725-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: Milton Rosa — Month Day Year: 05 10 94

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Diaz Gonzalez — Signature: [signature] — Month Day Year: 05 10 94

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous
Jeffrey L. Stevens — [signature] — 05 10 94

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

CP-2967-89

Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

Environmental Quality Board

ENVIRONMENTAL QUALITY BOARD

P.O. Box 11488, Santurce, Puerto Rico 00910

3

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD 0 9 0 4 9 0 2 8 5 — Manifest Document No.: 94008

2. Page 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILL. DE PUERTO RICO
CARR. 690, BOX 387
VEGA ALTA, P.R. 00692
(809) 883-5800

4. Generator's Phone

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001, ~~D018, D039~~) (ERG #27) ~~(D006, D008, D035, D040)~~	012	DM	00158	G	D006, D008, D035, D040, D001, D018, D039
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Magda I. Bermúdez — Signature: Magda I. Bermúdez — Month Day Year: 07 06 94

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 07 06 94

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 07 06 94

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No. | 2. Page 1 of | Information in the shaded areas is not required by Federal law.

P R D 0 9 0 4 9 0 2 8 5 | 9 4 0 0 9

3. Generator's Name and Mailing Address
OWENS ILL DE P.R.
BOX 387
VEGA ALTA, P.R. 00692

4. Generator's Phone 883-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27) (~~D006, D008, D035, D040~~)	0 0 6	D M	0 0 0 1 4	G	D001, ~~D018~~, ~~D035~~, ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 - S02, T63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): Magda I. Bermudez | Signature: Magda I. Bermudez | Month Day Year: 0 8 0 1 9 4

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Diaz Fuentes | Signature: Ricardo Diaz Fuentes | Month Day Year: 0 8 0 1 9 4

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Jeffrey L. Stevens | Signature | Month Day Year: 0 8 0 1 9 4

GENERATOR

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE E[illegible] ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Type or print. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5	Manifest Document No. 94010	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00762

4. Generator's Phone (809) 725-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manati, Puerto Rico 00701

10. US EPA ID Number: P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001 ~~D018, D035~~) (ERG #27)	006	DM	00.027	G	D001 ~~D018~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL. (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01 S02 I63

15. Special Handling Instructions and Additional Information
Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators having cartridge of removing organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: eyes, removing contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital. If not call Emergency Medical Care.
24 hours Emergency response information number. (809) (809) 725-5800 /TSDF. (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month Day Year
Magda I. Bermudez	Magda I. Bermudez	08 29 94

TRANSPORTER

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Ernesto Dias Rivera		08 29 94

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
Jeffrey L. Stevens		08 29 94

GENERATOR

IN CASE OF EMERGENCY OR SPILL IMMEDIATELY CALL THE E... ENVIRONMENTAL QUALITY BOARD (809) 722-0179

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 94011

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS-ILLINOIS DE PUERTO RICO
P.O. BOX 387
VEGA ALTA, P.R. 00692
(809) 883-5800

4. Generator's Phone

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA: D001, ~~D018, D039~~) (ERG #27)	006	DM	00074	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name (ON BEHALF OF): Milton Rosa — Signature: [signature] — Month Day Year: 10 05 94

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Diaz Gonzalez — Signature: [signature] — Month Day Year: 00594

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 00594

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. PRD098095285 | Manifest Document No. 2A0172 | 2. Page 1 of 2

3. Generator's Name and Mailing Address: OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-
4. Generator's Phone (809) 883-5800

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.
6. US EPA ID Number: PRD098015256

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT.
8. US EPA ID Number: PRD055937360

9. Designated Facility Name and Site Address:
LAIDLAW ENV.SERV. (TS), INC.
5303 128TH AVENUE NORTH
CLEARWATER, FL 34620-
10. US EPA ID Number: FLD098147480

A. Transporter's Phone 809/788-8000
B. Transporter's Phone 809/721-1313
C. Facility's Phone (813) 573-1605

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON REGULATED MATERIAL, (SPENT SULFUR)	003	MO	09800	LB
b.				
c.				
d.				

GENERATOR

D. Additional Descriptions for Materials Listed Above
(a) CWOIL-002 SPENT SULFUR

E. Handling Codes for Wastes Listed Above
(a) D81

15. Special Handling Instructions and Additional Information

JOB# 1932 SHIPMENT#
CONTAINER#
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDES

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: [illegible] | Signature: [illegible] | Month 10 Day 13 Year 94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID SANCHEZ | Signature: [illegible] | Month 10 Day 13 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month Day Year

ORIGINAL – RETURN TO GENERATOR

LAIDLAW ENVIRONMENTAL SERVICES

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 94012

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Owens Illinois
Road 690 Km 1.1 Box 387
Vega Alta PR 00692

4. Generator's Phone ( )

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: OCHOA Industrial Sales Corp

6. US EPA ID Number: PRD090128562

C. State Transporter's ID

D. Transporter's Phone (809)788-8000

7. Transporter 2 Company Name: Crowley American Transport

8. US EPA ID Number: PRD090559360

E. State Transporter's ID

F. Transporter's Phone (809)721-1313

9. Designated Facility Name and Site Address
Laidlaw Environmental Services, Inc
5302 126th ave. N.
Clearwater, Fl 34620

10. US EPA ID Number: FLD981474802

G. State Facility's ID

H. Facility's Phone (813) 573-1405

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Corrosive Liquids, NOS, 8, UN1760, PG II, RQ (D002) (Stannous Oxide, Phosphoric Acid)	X	001	DF	00300	P	D002
b. Non-Regulated Material		001	DM	00300	P	N/R
c. Waste Corrosive liquids, NOS, 8, PG II, UN1760 RQ(D002) (Stannous Oxide, Phosphoric Acid)	X	001	DM	00300	P	D002
d.						

J. Additional Descriptions for Materials Listed Above
a. CW01L-003
b. CW01L-002
c. CW01L-003

K. Handling Codes for Wastes Listed Above
S01/M141

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: X Magda I. Bermúdez — Signature: X Magda I. Bermúdez — Month Day Year: 03 01 95

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space
See original manifest FOR Transporter Signatures

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Glenn Byer for LESI — Signature: [signature] — Month Day Year: 01 03 94

EA Form 8700-200 (Rev. 9-88) Previous editions are obsolete.

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 44013 — 2. Page 1 of 1

3. Generator's Name and Mailing Address: OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

4. Generator's Phone (809) 883-5800

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP. — 6. US EPA ID Number: P.R.D.0.9.0.1.2.8.5.5.2

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT — 8. US EPA ID Number: P.R.D.0.9.0.5.5.9.3.6.0

9. Designated Facility Name and Site Address:
LAIDLAW ENV. SERV. OF BARTOW
170 BARTTOW MUNICIPAL AIRPORT
BARTOW, FL 33830-

10. US EPA ID Number: F.L.D.9.8.0.7.2.6.5.1.0

A. Transporter's Phone 809/788-8000
B. Transporter's Phone 809/721-1313
C. Facility's Phone (813) 533-6111

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON REGULATED MATERIAL, BAGS CONTAMINATED WITH DUST	020	DM	01,500	LB.
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
(a) TRSI-20252 BAGS CONTAMINATED WITH DUST

E. Handling Codes for Wastes Listed Above
(a) S01

15. Special Handling Instructions and Additional Information: Transporter #3 Laidlaw Environmental Services of Bartow
EPA ID#: FLD980729610 10/31/94
Phone#: 813 533 6111 Larry Hutchinson Larry Hutchinson
JOB#-1900 SHIPMENT# 333
CONTAINER# TRI 40YD 6
EMERGENCY PHONE #: (809) 883-5800 EMERGENCY CONTACT: MAGDA BERMUDEZ

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: Luis Perez D'Alle — Signature: — Month 10 Day 13 Year 94

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID SANCHEZ — Signature: — Month 10 Day 13 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: MIKEY TALAVERA — Signature: — Month 10 Day 20 Year 94

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19
Printed/Typed Name: MARTHA HAMILTON — Signature: Martha Hamilton — Month 10 Day 31 Year 94

ORIGINAL – RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No.: 94 013 — 2. Page 1 of 2

3. Generator's Name and Mailing Address: OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

4. Generator's Phone (809) 883-5800

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.
6. US EPA ID Number: P R D 0 9 0 1 2 8 5 6 2

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT
8. US EPA ID Number: P R D 0 9 0 5 5 9 3 6 0

9. Designated Facility Name and Site Address:
LAIDLAW ENV. SERV. OF BARTOW
170 BARTTOW MUNICIPAL AIRPORT
BARTOW, FL 33830-

10. US EPA ID Number: F L D 9 8 0 7 2 6 6 1 0

A. Transporter's Phone: 809/788-8000
B. Transporter's Phone: 809/721-1313
C. Facility's Phone: (813) 533-6111

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON REGULATED MATERIAL, BAGS CONTAMINATED WITH DUST	020	DM	01500	LB
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
(a) TRSI-20252 BAGS CONTAMINATED WITH DUST

E. Handling Codes for Wastes Listed Above
(a) SO1

15. Special Handling Instructions and Additional Information

JOB# - 1933 SHIPMENT#
CONTAINER#
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MAGDA BERMUDES

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Juan Perez Deldalle — Signature: [signature] — Month 10 Day 13 Year 94

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID SANCHEZ — Signature: [signature] — Month 10 Day 13 Year 94

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACIL

ORIGINAL – RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. PRD090490285	Manifest Document No. 94013	2. Page 1 of 2

GENERATOR

3. Generator's Name and Mailing Address: OWENS ILLINOIS
ROAD 690 KM 1.1 BOX 387
VEGA ALTA, PR 00692-

4. Generator's Phone (809) 883-5800

5. Transporter 1 Company Name: OCHOA INDUSTRIAL SALES CORP.
6. US EPA ID Number: PRD090128562

7. Transporter 2 Company Name: CROWLEY AMERICAN TRANSPORT
8. US EPA ID Number: PRD090559360

9. Designated Facility Name and Site Address:
LAIDLAW ENV. SERV. OF BARTOW
170 BARTTOW MUNICIPAL AIRPORT
BARTOW, FL 33830-
10. US EPA ID Number: FLD980726610

A. Transporter's Phone: 809/788-8000
B. Transporter's Phone: 809/721-1313
C. Facility's Phone: (813) 533-6111

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON REGULATED MATERIAL. BAGS CONTAMINATED WITH DUST	020	DM	01500	LB.
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
(a) TRSI-20252 BAGS CONTAMINATED WITH DUST

E. Handling Codes for Wastes Listed Above
(a) S01

15. Special Handling Instructions and Additional Information

JOB# - 1922 SHIPMENT# 333
CONTAINER# TRLU 401456-6
EMERGENCY PHONE : (809) 883-5800 EMERGENCY CONTACT : MASDA BERMUDES

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Juan Pérez Delvalle	Juan Pérez Delvalle	10	13	94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
DAVID SANCHEZ	David Sánchez	10	13	94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 94014

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE PUERTO RICO
BOX 387
VEGA ALTA, P.R. 00762

4. Generator's Phone (809) 725-5800

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~ (ERG #27)	006	DM	00073	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 725-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): * Milton Rosa — Signature: [signature] — Month Day Year: 11 08 94

17. Transporter 1 Acknowledgment of Receipt of Materials
Printed/Typed Name: Ricardo Diaz González — Signature: [signature] — Month Day Year: 11 08 94

18. Transporter 2 Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 11 08 94

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOARD
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

3

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: PRD090490285 — Manifest Document No.: 94015

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
OWENS ILL DE P.R
BOX 387
VEGA ALTA, PR 00692

4. Generator's Phone: 883-5800

A. State Manifest Document Number:

B. State Generator's ID:

5. Transporter 1 Company Name: SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number: PRD090399718

C. State Transporter's ID: HW-02

D. Transporter's Phone: (809) 854-1090

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico 00701

10. US EPA ID Number: PRD090399718

G. State Facility's ID:

H. Facility's Phone: (809) 854-1090

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. WASTE COMBUSTIBLE LIQUID, N.O.S. (MINERAL SPIRITS) NA1993 PG III (EPA; D001, ~~D018, D039~~) (ERG #27)	006	DM	00078	G	D001 ~~D018~~ ~~D039~~
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above:
A) CONTAINS MINERAL SPIRITS AND OIL (GUIDE 27)

K. Handling Codes for Wastes Listed Above:
S01, S02, T63

15. Special Handling Instructions and Additional Information

Special Handling Instructions and Additional Information. In case of spill, chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number (809) 883-5800 /TSDF (809)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF): * Magda I. Bermúdez — Signature: Magda I. Bermúdez — Month Day Year: 12 07 94

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name: Ricardo Díaz González — Signature: [signature] — Month Day Year: 12 07 94

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Jeffrey L. Stevens — Signature: [signature] — Month Day Year: 12 07 94

GENERATOR

TRANSPORTER

FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE ENVIRONMENTAL QUALITY BOARD (809) 722-0439

EXHIBIT H

March 11, 1997 USEPA's Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 1 1 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Milton Rosa
Plant Engineer
Owens-Illinois de Puerto Rico
P.O. Box 387
Vega Alta, P.R. 00692

Re: Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)
Owens-Illinois de Puerto Rico
EPA ID #PRD090490285

Dear Mr. Rosa:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of human health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq.

You are hereby required, pursuant to Section 9005(a) of RCRA, 42 U.S.C. § 6991d(a), and 40 C.F.R. § 280.34, to submit the information requested in Attachment II, for the underground storage tank (UST) system located at Owens-Illinois de Puerto Rico facility in Vega Alta, P. R., using the instructions and definitions in Attachment I. This information is necessary to determine whether said UST system is in compliance with Subtitle I of RCRA, as amended, 42 U.S.C. § 6991 et seq., and the regulations promulgated pursuant thereto and set forth at 40 C.F.R. Part 280.

Please provide the information requested no later than thirty (30) calendar days from the date of receipt of this letter. Requests for additional time must be justified, and must be requested within ten (10) calendar days of your receipt of this letter. The response must be signed by a responsible official or agent of your company. Violation of federal UST regulations may result in penalties of up to $10,000 per UST system per day of violation.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

The response to the request in Attachment II must be submitted to the following address:

Marianna Dominguez,
Environmental Engineer
RCRA Compliance Branch
U.S. Environmental Protection Agency
290 Broadway, 22nd floor
New York, New York 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested. The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Section 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in, 40 C.F.R. Part 2. EPA will review the information to determine the extent of confidentiality of the information, and may, at its discretion, challenge the confidentiality claim pursuant to the procedures set forth at 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act, 44 U.S.C. §§3501 et seq.

Failure to respond to this letter truthfully and accurately within the time provided may subject you to an enforcement action pursuant to Section 9006 of RCRA, 42 U.S.C. § 6991e.

In order to assist you in understanding 40 C.F.R. Part 280 (the UST requirements) and 40 C.F.R. Part 279 (used oil requirements), we have enclosed copies of 40 C.F.R. Part 280, 40 C.F.R. Part 279 and a pamphlet entitled "Requisitos Para Generadores de Aceite Usado".

If you have any questions concerning the information requested, please contact Marianna Dominguez at (212) 637-4154. Thank you for your cooperation.

Sincerely yours,

Conrad Simon, Director
Division of Enforcement and Compliance Assistance

Enclosures

cc: Carl Soderberg, Director
Caribbean Environmental Protection Division

Carmelo Vázquez, Chief
Inspection, Monitoring & Surveillance Section, EQB

ATTACHMENT I

INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must sign the attached Certification of Answers and return it with the response to this Request for Information.

2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.

4. In answering each question, identify all contributing sources of information.

5. It is your responsibility to try to obtain any information pertinent to any question. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.

6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.

7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner the number of the question to which it applies.

8. If anything is deleted from a document produced in response to the Request for Information, state the reason for and the subject matter of the deletion.

9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. Unless the question clearly provides otherwise, each question must be answered for the UST located in the Owens-Illinois de Puerto Rico, Vega Alta facility.

11. The company, for the purposes of the Request for Information, is Owens-Illinois de Puerto Rico, Carretera 690, Km. 1.7, Barrio Sabana Hoyo, Vega Alta, PR 00692.

12. Underground storage tank or UST shall be defined, for the purposes of this Request for Information, as any one or combination of tanks (including pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. See 40 C.F.R. § 280.12.

13. Underground storage tank system or UST system shall be defined, for the purposes of this Request for Information, as an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any. See 40 C.F.R. § 280.12.

14. A facility, for the purposes of this information gathering, is defined as the property on which USTs are located.

Hacer plano sobre Tanque

ATTACHMENT II

On or about December 12, 1996, a duly authorized representative of EPA conducted an inspection of Owens-Illinois de Puerto Rico, Vega Alta, Puerto Rico. During this inspection, the inspector was told that the facility was storing used oil from past oil changes in an underground storage tank (UST) which is approximately 6 feet long by 6 feet wide by 3 feet deep. The inspector was also told that Owens-Illinois has not stored used oil in the UST in the last two years. The cover of the UST was a grate cover and the inspector observed that the UST was almost completely filled up with used oil, i.e., the tank was ready to overflow. The UST had no level gages or a level alarm to prevent spills or overflows. The inspector was also informed that the UST is cleaned up every two months, however, there were about two feet of sludge in the UST at the time of the inspection and sludge removal invoices to demonstrate that the tank was cleaned every two months were not available when requested. The drawings and technical specifications for the tank were not available when requested during the inspection, the reason for that being that the tank was custom made. Inspection logs, and tank tests were not available either.

The following questions refer to the above referenced UST:

1. Provide a plan showing the location and manifold configurations, if any of the UST referenced above.

2. Provide the day, month and year that the UST was first installed. If the installation date is unknown, please state so.

3. Provide the capacity of the UST and indicate the regulated substances currently stored, or which were stored.

4. Provide the results of any test conducted to determine if the contents of the UST are subject to regulation under Subtitle C of RCRA. Provide copies of test results for the last three years.

5. Provide the following information: (a) the construction material of tank and piping for the UST system, (b) the name of the manufacturer of each part of the UST system, (c) whether or not the UST system has been upgraded pursuant to 40 C.F.R. 280.21. If so, submit all the information to show the upgrade, including the lay-out showing the existing conditions and the upgrade. Also a brief narrative description of the upgrade. The narrative must show the steps taken for the upgrading, if the UST was closed for the upgrade indicate when the closing occurred, and how Owens-Illinois de Puerto Rico managed the used oil during the period that the UST was out of service.

And (d) for tanks installed after December, 1988, state whether they are equipped with corrosion protection and spill and overfill protection.

6. Indicate for each piping system whether the piping system is suction or pressurized.

7. Owners and operators are required to comply with release detection regulations found at 40 C.F.R. §§ 280.40 - 280.45. Please specify and describe which method(s) of leak detection (see 40 C.F.R. §§ 280.43 and/or 280.44) is used to meet the requirements of 40 C.F.R. §§ 280.40 - 280.42. Please specify the release detection method by regulatory cite (e.g. 40 C.F.R. §§ 280.43(a) and 280.43(c) to meet the requirements of 40 C.F.R. § 280.41(a)(2)) and describe the practices used to comply with the UST requirements.

8. If release detection is conducted in accordance with the methods described in 40 C.F.R. § 280.43(d)-(h), provide monthly monitoring data for 1994, 1995 and 1996 for the UST.

9. If release detection is conducted by monthly inventory controls and tank tightness testing as allowed by 40 C.F.R. § 280.41(a)(1) and (2), and you have not provided the information requested herein in response to any question above, please provide proof of tank tightness testing for the UST.

10. For USTs installed after December, 1988 and if release detection is conducted by monthly inventory controls and tank tightness testing as allowed by 40 C.F.R. § 280.41(a)(1), and you have not provided the information requested herein in response to any question above, please provide proof of tank tightness testing for each UST.

11. For USTs installed after December, 1988, in accordance with 40 C.F.R. § 280.20 and/or for USTs which were upgraded, in accordance with 40 C.F.R. § 280.21 please provide documentation of proof of corrosion protection and spill and overfill equipment.

12. The inspector was informed during the inspection that the UST has not been used for used oil storage for the last two years. If regulated substances, including used oil have not been placed in an UST for a period longer than a year, the UST is considered permanently closed. If this is the case closure should have commenced. Please provide documentation to demonstrate compliance with 40 C.F.R. § 280.71.

13. Provide all information pertaining to known or suspected releases from the UST and corrective action taken with respect to such releases between December 22, 1988 and the date of your response.

14. Describe how the UST is maintained (i.e., how is an UST cleaned when cleaning is required, who is responsible for initiating the cleaning, who performs the cleaning, how the wastes generated from clean up operation is handled, etc.).

15. If the UST has been cleaned of sediments or scaled, provide the following informaton for the UST: the date of cleaning, the name of the company who performed the cleaning, the volume of waste liquid generated by the cleaning operation, and copies of any Toxicity Characteristic Leaching Procedure (TCLP) test (EPA test method 1311) conducted on the material cleaned from the tanks to make a hazardous waste determination. Provide copies of the information on the work done in 1995 and 1996.

16. Identify each person by name and position held at the company who prepared or assisted in the preparation of the responses to this information request.

EXHIBIT I

5/20/1997 OIPR's Response to USEPA's 3/11/1997 RCRA §9005 Request for Information

OWENS-ILLINOIS
de Puerto Rico

May 20, 1997

VIA FEDEX

Marianna Dominguez
Environmental Engineer
Division of Enforcement and
Compliance Assistance
U.S. EPA - Region II
290 Broadway, 22nd floor
New York, NY 10007-1866

Re: Owen-Illinois de Puerto Rico
RCRA §9005 Request for Information

Dear Ms Dominguez:

This letter constitutes Owens-Illinois of Puerto Rico ("Owens-Illinois") response to the Request for Information dated March 11, 1997, sent by the U.S. Environmental Protection Agency - Region II, pursuant to the provisions of Section 9005 of the Resource Conservation and Recovery Act ("RCRA").

The RCRA Section 9005 Information Request was received by Owens-Illinois on March 19, 1997. EPA granted Owens-Illinois until May 20, 1997, to provide a complete response to the aforementioned information request. Owens-Illinois' responses are attached to this letter.

In my capacity as Owens-Illinois' Plant Engineer I have either personal knowledge or responsibility over the activities referred to in the Request for Information. I believe that the response to EPA's Request for Information provided herein by Owens-Illinois contitutes a true, accurate and complete response.

We do not agree with the basic factual premise referred to in the RCRA Section 9005 Information Request that "the facility was storing used oil from past oil changes in an underground storage tank (UST) which is approximately 6 feet long by 6 feet wide by 3 feet deep". The alledged UST is truly a sump used for the collection of the fork lift wash waters located at the mechanic's garage. We consider this sump to be outside the scope of Subtitle I of RCRA and, thus, not subject to regulation under the UST regulations, because it is a waste water collection tank expresly excluded under Section 9001(1) of RCRA.

The sump of reference is and has always been used to collect the wash waters generated from the washing of fork lifts, not for the storage of used oil. It consists of an open reinforced concrete chamber having the approximate dimensions mentioned in the Request for Information (6 feet long by 6 feet wide by 3 feet deep) located just beneath were the fork lifts are parked for washing at the fork lift wash

room. The wash waters may contain traces or a film of oily material resulting from the washing of the vehicles, but not used oil.

Pursuant to the information provided by company personnel that has been working at the facility for at least 15 years and who I have reason to believe that may be familiar with this matter, the mentioned sump was constructed about 15 years ago. We searched company files and talked to plant employees but could not find any information regarding the construction of the sump, or plans and drawings of the same, as most likely, it was custom made by company personnel or by a small local contractor.

Please call us if you have any questions or need any further information.

Cordially yours,

Milton Rosa
Plant Engineer

yt

enclosure

rcrasump

Owens-Illinois of Puerto Rico
RCRA §9005 Request for Information

Responses:

1. Attached as Appendix A is a plan showing the location of the sump. There are no other plans or drawings of the sump in question.

   The alleged UST is a sump used for the collection of the fork lift wash waters located at the mechanic's garage. We consider this sump to be outside the scope of Subtitle I of RCRA and, thus, not subject to jurisdiction under the UST regulations, because it is a waste water collection tank expressly excluded under Section 9001(1) of RCRA.

   The sump of reference is and has always been used to collect the wash waters generated from the washing of fork lifts, not for the storage of used oil. Fork lifts are normally washed once every month with a pressure washer on the mentioned wash room. The fork lift mechanic, who performs the washing activity, occasionally uses a biodegradable industrial cleaner to remove oil stains in the fork lifts. Attached as Appendix B, is a copy of the Material Safety Data Sheet of the mentioned cleaner. All the wash waters flow and are collected in the sump.

   The wash waters may contain traces or a film of oily material resulting from the washing of the vehicles or from incidental drips from the oil storage rack located outside the fork lift wash room. However, used oil has never being drained or discharged into the sump.

   Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

2. The date in which the sump was constructed is unknown. However, pursuant to information provided with company personnel that has been employed at the plant for more than 15 years, the sump has been in operation for the collection of wash waters for at least 15 years.

   Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman, and Gabriel Andino, Systems and Mechanics Crew Leader.

3. The sump in question has a capacity of approximately 1440 gallons. It has always been used to collect the wash waters from the fork lift washing operation, as described in response to question number 1.

4. As of the date of this response, there are no results of chemical analyses performed to samples taken from the sump.

5. a. The sump was constructed with reinforced concrete. See response to question No. 1.

   b. Not applicable to the sump ("N/A"), see response to question no. 1.

   c. N/A, see response to question no. 1.

   d. N/A, see response to question no. 1.

6. Not applicable to the sump, see response to question no. 1.

7. Not applicable to the sump, see response to question no. 1.

8. Not applicable to the sump, see response to question no. 1.

9. Not applicable to the sump, see response to question no. 1.

10. Not applicable to the sump, see response to question no. 1.

11. Not applicable to the sump, see response to question no. 1.

12. Not applicable to the sump, see response to question no. 1. Please be informed that used oil has never being drained or discharged into the sump.

    Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

13. Not applicable to the sump, see response to question no. 1.

14. Not applicable to the sump, see response to question no. 1. However, please be informed the sump is cleaned periodically by company personnel by removing its contents for recycling with a pump into a portable tank and transferred in a fork lift to the facility's oil skimmer area. At the skimmer area, any oil residue present in the wash waters is removed, filtered, and automatically pumped to the 10,000 gallon used oil tank for burning as an alternate fuel for the sand plant dryer and glass melting furnaces. The water is used as cooling water for the glass reject channels at the plant.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, that the submitted information is true, accurate and complete, and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information.

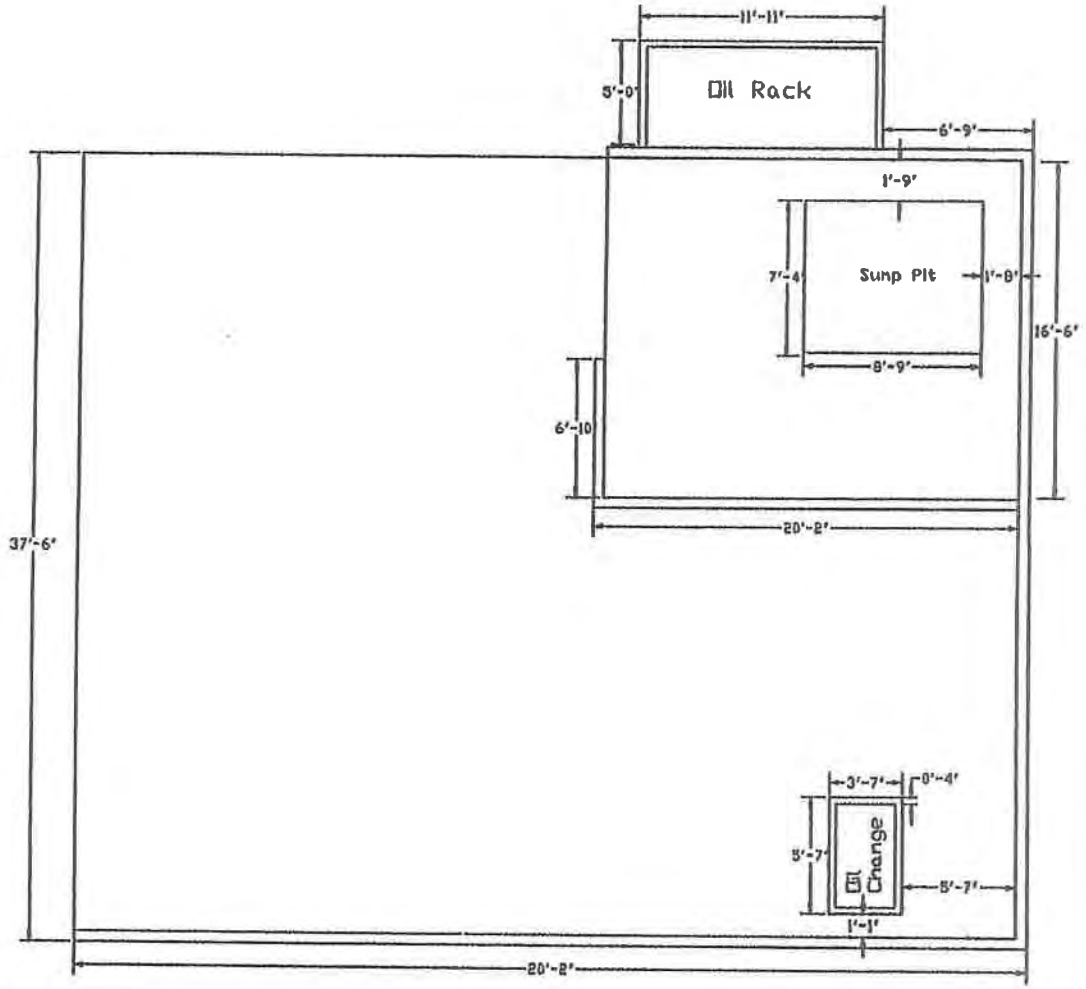
Milton Rosa
NAME (print or type)

Plant Engineer
TITLE (print or type)

Milton Rosa
SIGNATURE

May 20, 1997
DATE

QUESTION 1



OWENS ILLINOIS			
DRAWN: C.Pantoja	DATE: 05/20/97	PROJECT NUMBER	REV 1
APPV'D:	FILE: Mechanical Workshop		

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard. 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY (As Used on Label and List)	Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.
INDUSTRIAL CLEANER	

Section I

Manufacturer's Name	Emergency Telephone Number
FORTO CHEMCIAL CORPORATION	(809) 720-7481
Address (Number, Street, City, State, and ZIP Code)	**Telephone Number for Information**
CALLE PARQUE DE LOS NIÑOS	(809) 720-7481
EDIF. #6 -PARQUE IND. LOS FRAILES	**Date Prepared** Noviembre 1, 1992.
GUAYNABO, PR 00657	**Signature of Preparer (optional)**

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
2 Butoxyethanol CAS #111-76-2				4%
Monoethanolamine CAS #141-43-2				3.85%
Isopropanol .99% CAS #67-63-0				6.28%

Section III — Physical/Chemical Characteristics

Boiling Point	210°F	Specific Gravity (H_2O = 1)	107
Vapor Pressure (mm Hg.)	UNK	Melting Point	N/A
Vapor Density (AIR = 1)	UNK	Evaporation Rate (Butyl Acetate = 1)	N/A

Solubility in Water: COMPLETE

Appearance and Odor: YELLOW, LIQUID WITH SOLVENT ODOR

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NO FLASH POINT	NO FLASH	N/A	N/A

Extinguishing Media: NOT APPLICABLE

Special Fire Fighting Procedures: NOT APPLICABLE

Unusual Fire and Explosion Hazards: NONE

EXHIBIT J

7/3/1997 USEPA's RCRA § 3007 Information Request #2

JUL 0 3 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Milton Rosa
Plant Engineer
Owens-Illinois de Puerto Rico
P.O. Box 387
Vega Alta, P.R. 00692

Re: RCRA § 3007 Information Request #2
Owens-Illinois de Puerto Rico
EPA ID # PRD090490285

Dear Mr. Rosa:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Part 6901 et seq.

On March 11, 1997, EPA Region 2 sent an initial request for information to you pursuant to Section 3007 of RCRA, 42 U.S.C. Section 6927, in order to evaluate compliance with used oil regulations at the Owens-Illinois Puerto Rico facility in Vega Alta, Puerto Rico. A reply was submitted by you dated May 20, 1997.

In order to clarify certain issues raised in your May 20, 1997 response to the Region's initial request for information, you are hereby required to submit the information requested in Attachment II pursuant to the provisions of Section 3007 of RCRA, 42 U.S.C. Section 6927. EPA hereby requires that you provide the information requested in Attachment II to this letter using the instructions and definitions included in Attachment I. This information is required to evaluate the compliance of Owens-Illinois de Puerto Rico Used Oil handling facility.

Please provide the information requested no later than thirty (30) calendar days from receipt of this letter. Requests for additional time must be made within ten (10) calendar days of receipt of this letter, and must be justified. The response must be signed by a responsible official or agent of your company.

The response to the request in the Attachment II must be mailed to the following address:

Marianna Dominguez
Environmental Engineer
Division of Enforcement and Complaince Assistance
U.S. Environmental Protection Agency - Region 2
290 Broadway, 22nd Floor
New York, New York 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested. The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret", "proprietary", or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Part 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act, 44 U.S.C. Part 3501 et seq.

Failure to respond in full to this requirement is a violation of RCRA and may result in federal enforcement action pursuant to Section 3008 of RCRA, 42 U.S.C. Section 6928.

If you have any questions concerning this letter, please contact Marianna Dominguez at (212) 637-4154. Thank you for your cooperation.

Sincerely yours,

Original signed by
Conrad Simon

Conrad Simon, Director
Division of Enforcement and Compliance Assistance

Enclosures

cc: Carmelo Vasquez, Chief
Inspection, Monitoring & Surveillance Section, EQB

Carl Soderberg, Director
Caribbean Environmental Protection Division

bcc: Marianna Dominguez, 2DECA-RCB-HWCS
Joel Golumbek, 2DECA-RCB-HWCS
Hanna Maciejko, 2DEPP-RPB

ATTACHMENT I

INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must complete and return the attached Certification of Answers to Responses to Request for Information.

2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.

4. In answering each question, identify all contributing sources of information.

5. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.

6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.

7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner, the number of the question to which it applies.

8. If anything is deleted from a document produced in response to this Request for Information, state the reason for and the subject matter of the deletion.

9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. The company and/or facility for the purposes of this Request for Information, is Owens-Illinois de Puerto Rico, Carretera 690 Km.1.7, Barrio Sabana Hoyo, Vega Alta, P.R. 00692.

11. A generator of hazardous waste for the purposes of this Request for Information shall be defined as any person (which includes this facility), by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation.

12. Solid waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(27) of RCRA, as amended, 42 U.S.C. Part 6903(27).

13. Hazardous waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(5) of RCRA, as amended, 42 U.S.C. Part 6903(5).

14. Manage shall be defined for the purposes of this Request for Information as to market, generate, treat, store, dispose or otherwise handle.

ATTACHMENT II

Your response dated May 20, to the EPA March 11, 1997 initial RCRA § 3007 Information Request Letter, was reviewed and evaluated. As a result this second letter is issued in order to clarify different issues and observations during the inspection of the facility performed on December 12, 1996.

Question 1

This question relates to your response 2a. Please submit the characterizations which were made by the waste disposal contractor and which you said you will provide.

Question 2

Refers to your response 2b. You say that "Attached as Appendix B please find copies of several waste analysis performed to the used oil generated at the facility and demonstrate that the used oil is not a hazardous waste."

(a) Appendix B includes test results for a sample which, because it is the page following the chain of custody record taken by Safety Kleen sample SKL2372, appears to relate to that sample. However, the page cannot be read because the copy is too light. Please submit a copy that can be read.

(b) This Appendix B also includes a Report of Analysis by Beckton Environmental Laboratories Inc., dated February 15, 1995 which shows results for Total Phosphorus of 365 mg/l. Given the relatively high phosphorus concentration, please indicate first how do you know this is a used oil sample analysis and how did you determine that it is not hazardous based on the results given.

Question 3

Your response 2b.5. refers to Appendix C for Waste Oil. This Appendix C consists of one analysis sent by Safety Kleen on May 3, 1995. The analysis shows concentrations of: Arsenic ∠10 p.p.m.; the specification in 40 C.F.R. § 279.11 is a maximum of 5 p.p.m. Cadmium ∠3 p.p.m.; the specification in 40 C.F.R § 279.11 is a maximum of 2 p.p.m. Therefore, the results included in Appendix C show that the used oil burned at Owens Illinois de Puerto Rico does not meet the used oil specifications of 40 C.F.R. § 279.11, Table 1. Please provide any additional information you have that may demonstrate that the used oil meets the specifications of 40 C.F.R. § 279.11.

Question 4

(a) Who determines that Safety Kleen used oil brought to the Owens Illinois de Puerto Rico site meets the specifications of 40 C.F.R. § 279.11 Table 1?

(b) How often is the used oil tested and what is the rationale for determining the testing frequency?

Question 5

Please refer to your answer number 5 of your May 20, 1997 response. You refer to Appendix E in which you attach a photograph of the structure where, according to your response, used oil changes are performed on the forklifts. When the EPA inspector inspected the facility on December 12, 1996, the concrete lined box shown in the photograph underneath the steel rail was not there. The inspector observed a hole dug in the ground where used oil had been spilled and had been covered with adsorbent material to cover up the spills. The Owens-Illinois worker who helped the inspector indicated that used oil is changed in this hole dug in the ground. Please explain the discrepancy between the inspector's observations and the concrete lined tank or pit shown in your photograph submitted in Appendix E. What was the date of installation of the concrete liner? Provide evidence of the date of installation.

Question 6

Regarding the hole/pit observed by the inspector and the new concrete lined tank/pit shown in your photograph, please answer the following questions:

a. Was the hole/pit cleaned before putting the concrete liner in the hole?

b. Was the used oil contaminated absorbent material that was observed by the inspector, and used to absorb the used oil drained into the hole pit, tested before removal and disposal? If yes, please provide the sampling results and identify where the absorbent material was sent for disposal.

c. Describe the clean up operation of the area around the hole observed by the inspector as described above, including, but not limited to, soil samples taken from the bottom of the hole to determine soil contamination, and indicate what was the criteria used to determine soil contamination.

d. How much contaminated soil was excavated and how was it disposed? Please submit all documents necessary to demonstrate appropriate removal and disposal of the contaminated soil excavated from this pit.

e. When was this work done?

f. Where was the used oil from the forklifts changed before the construction of the concrete-lined pit shown on the photograph?

EXHIBIT K

8/11/1997 OIPR's Response to USEPA's RCRA § 3007 Request for Information

OWENS-ILLINOIS
de Puerto Rico

August 11, 1997

VIA FAXAND FEDEX

Eng. Marianna Dominguez
Enforcement and Compliance Assistance
U. S. EPA - Region II
290 Broadway, 22nd Floor
New York, NY 10007-1866

Re: Owens-Illinois of Puerto Rico
RCRA §3007 Request for Information

Dear Ms. Dominguez:

This letter constitutes Owens-Illinois of Puerto Rico ("Owens-Illinois") response to the Request for Information dated July 3, 1997, sent by the U. S. Environmental Protection Agency - Region II, pursuant to the provisions of Section 3007 of the Resource Conservation and Recovery Act ("RCRA"). The RCRA Section 3007 Information Request was received by Owens-Illinois on July 11, 1997. Owens-Illinois' responses are attached to this letter.

In my capacity as Owens-Illinois' Plant Engineer, I have either personal knowledge or responsibility over the activities referred to in the Request for Information. I believe that the response to EPA's Request for Information provided herein by Owens-Illinois constitutes a true, accurate and complete response.

Please call us if you have any questions or need any further information.

Cordially yours,

Milton Rosa

Owens-Illinois of Puerto Rico
RCRA §3007 Request for Information

Responses:

1. The copies of the characterizations referred to by Owens-Illinois in response 2a dated May 20, 1997, pertain the to hazardous wastes that were generated and shipped off-site for proper disposal with permitted hazardous waste management contractors. It is the practice of the hazardous wastes disposal contractors that handle Owens-Illinois' wastes to conduct sampling and analysis for each waste stream prior to its acceptance for transport and disposal. The characterizations have been requested from the disposal contractors and will be provided once obtained.

2. a. Enclosed as Appendix A is a copy of the page referred to in theInformation Request. A more clear copy of the analysis has been requested fromSafety Kleen and will be provided once obtained.

b. The report of the Beckton Environmental Laboratories dated February 15, 1995 shows that for the Total Phosphorus analysis EPA Method 395.4 was used.

3. Appendix C referred to in the May 20, 1997 response 2b.5 consists of oily waste material disposed of through the services of Safety Kleen . It was not burned at the Owens Illinois plant.

4. a. Pursuant to the agreements between Owens-Illinois and its used oil broker, Safety-Kleen, the used oil sent to Owens-Illinois plant for energy recovery should meet the specifications listed in the Table attached as Appendix B.

b. According to Mr. Jeffrey Stevens of Safety Kleen, the company tests the used oil it collects from various of its clients as often as necessary to obtain knowledge regarding the proper classification of the material as a hazardous waste or not. In addition, Safety Kleen provides with each shipment of used oil to Owens Illinois an analysis of the material provided. Owens Illinois has requested Safety Kleen to certify, with every shipment, the specifications of the used oil it brings to its plant for energy recovery.

The source of the information provided in this response has been Mr Jeffrey Stevens and the company files.

5. The "pit" seen by the EPA inspector on December 12, 1996, at the facility's garage area, is an open space below grade used by the fork lift mechanics to facilitate the changing the oil and oil filters of the fork lifts. The fork lifts are driven on top of the "pit" and the mechanics get below the fork lifts to have access to their under side to perform the oil change.

The black stains that were seen in the "pit" by the inspector on December 12, 1996, may be the typical oily spots that are seen in the floor of automotive mechanic shops were oil changes and other mechanical jobs are performed. The absorbent pads that were seen by the inspector on December 12, 1996, were placed inside the "pit" as a precautionary measure to prevent any accidental spill from gaining access to the ground and to keep the area as clean as possible. This is typical mechanic shop activity.

As previously reported, the facility has never used the "pit" to directly pour or drain the used oil from the fork lifts. The used oil is drained from the fork lifts, through an extended funnel, directly into a 5-gallon plastic container. The used oil is then transferred manually by the mechanic from the 5-gallon container into a 55-gallon steel drum. It appears that the cause for the discrepancy mentioned in the Information Request is the incorrect notion that Owens-Illinois drained directly into the "pit" the used oil from fork lifts without placing a container below to collect the oil.

The concrete work was done at the facility by company personnel during the month of March 1997 . We have searched our files and found no documentary evidence referring to the construction of the "concrete liner".

6. a. The " hole/pit" was conditioned before the placement of the concrete walls and floor. This work may have required the removal of some oil stained soil. The small amount of soil, about 1-2 cubic yards, that was removed was disposed in drum through the services of Safety Kleen as non-hazardous waste.

b. The floor absorbent material that wase seen by the inspector was not used to absorb the used oil drained into the hole pit", but as a precautionary measure to prevent that any accidental spill from gaining access to the soil. It was removed and disposed of with the oil stained soil referred to in Response 6a, above.

c. See response to question 6a.
d. See response to question 6a.

e. See response to question 5.

f. As previously reported, the oil changes to the fork lifts have been made in that same "pit" in the manner described in our previous response.

Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Michael Rosa

Name (print or type)

Michael Rosa

SIGNATURE

8-14-97

DATE

Method: 3PA1NEW Sample [redacted]: 3ML00[redacted] Operator: MC

Run Time: 02/15/00 [redacted]

Comment: SAMPLE

Mode: CONC Conv. Factor: 50

Elem	Ag	Al	As	Ba	Be	Ca	Cd
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgs	L.1000	L.0000	L.0000	L.[illegible]	[illegible]	[illegible]	[illegible]
SDev	.1000	.1150	[illegible]	[illegible]	.0011	.0480	.0010
%RSD	83.31	[illegible].0771	2821.3	10.10	11.11	110.2	7711.2
#1	L.0308	L.0000	L.7880	L.1104	L.0200	L.0010	L.0[illegible]
#2	L.0510	L.0000	L.0000	L.0007	L.0000	L.0010	L.0[illegible]
#3	L.0311	L.0000	L.0000	L.0400	L.0000	L.0000	L.0[illegible]
Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low
High	10000.	50000.	50000.	10000.	7500.	12500.	25000.
Low	0.000	0.000	0.000	1.000	1.000	1.000	1.000

Elem	Cr	Cu	Fe	Hg	Mn	Ni	Pb	Sb
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avgs	[illegible].110	[illegible]0.01	L4.000	L.0000	L.0007	0.302	L1.301
SDev	.030	.00	.100	.0424	.0058	.003	.100
%RSD	1.101	.1110	0.702	27.30	00.20	0.178	20.00
#1	[illegible].111	71.06	L4.701	L.0000	L.0360	0.205	L1.001
#2	[illegible].144	72.02	L4.115	L.0000	L.0981	0.000	L1.700
#3	[illegible].047	70.44	L4.098	L.0000	L.0360	7.023	L1.110
Errors	LC Pass	LC Pass	LC Low	LC Low	LC Low	LC Pass	LC Low
High	10000.	50000.	50000.	10000.	07500.	5000[illegible].	25000.
Low	1.000	1.000	0.000	1.000	1.000	0.000	0.000

Elem	Se	Sn	Tl	Tl	Zn
Units	ppm	ppm	ppm	ppm	ppm
Avgs	L.0000	L1.322	71.78	L.5258	00.00
SDev	2.743	.000	.17	4.320	.38
%RSD	282.7	00.70	.0019	801.3	.[illegible]
#1	L.0000	1.070	74.68	L.0000	00.10
#2	L.0000	L1.000	74.68	L.0000	00.94
#3	L1.504	L.8987	71.08	15.001	00.00
Errors	LC Low	LC Low	LC Pass	LC Low	LC Pass
High	50000.	50000.	25000.	75000.	10000.
Low	1.000	1.000	1.000	10.00	1.000

Appendix A

Appendix B

safety-kleen

Safety Kleen Envirosystems Company of P.R., Inc.

(787) 854-1090

RECOVERY PRODUCT SPECIFICATIONS

OWENS ILLINOIS DE PUERTO RICO INC.

Product:

USED OILS

Chromium:	10ppm max.
Cadmium:	2ppm max.
Arsenic:	5ppm max.
Lead:	100ppm max.
Halogens:	4000ppm (0.4%) max.
Flash Point:	100° F min.
P.C.B:	50ppm max.
Heat Content (BTUs/lb):	as reported
Water (K.F.):	10wt% max.
Vanadium:	100ppm max.
*Sulfur:	1.4 wt% max. (See Note)

*Note: Sulfur analysis will be reported later by a contract laboratory.

The term "Off Specs" applies only to EPA Specs, not to Owens Illinois de P.R. Inc.

Customer Approval: _____ Date: 7-11-97

S.K. Branch Services Approval: _____ Date: _____

S.K. Laboratory Revision: _____ Date: _____

EXHIBIT L

7/2/1997 USEPA's Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

JUL 0 2 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

MAINTENANCE
JUL 1 1 1997
RECEIVED

Mr. Milton Rosa
Plant Engineer
Owens-Illinois de Puerto Rico
P.O. Box 387
Vega Alta, P.R. 00692

Re: Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)
Owens-Illinois de Puerto Rico (Second Request)
EPA ID #PRD090490285

Dear Mr. Rosa:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of human health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq.

On March 11, 1997, EPA Region 2 sent an initial request for information to you pursuant to section 90005(a) of RCRA, 42 U.S.C.§ 6991d(a), and 40 C.F.R. § 280.34 in which the Region sought information regarding an underground storage tank (UST) located at the Owens-Illinois de Puerto Rico facility in Vega Alta, Puerto Rico. A reply was submitted by you dated May 20, 1997.

In order to clarify certain issues raised in your May 20, 1997 response to the Region's initial request for information, you are hereby required, pursuant to Section 9005(a) of RCRA, 42 U.S.C.§ 6991d(a), and 40 C.F.R. § 280.34, to submit the information requested in Attachment II, for the underground storage tank (UST) system located at Owens-Illinois de Puerto Rico facility in Vega Alta, P. R., using the instructions and definitions in

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (40% Postconsumer)

Attachment I. This information is necessary to determine whether said UST system is in compliance with Subtitle I of RCRA, as amended, 42 U.S.C. § 6991 et seq., and the regulations promulgated pursuant thereto and set forth at 40 C.F.R. Part 280.

Please provide the information requested no later than thirty (30) calendar days from the date of receipt of this letter. Requests for additional time must be justified, and must be requested within ten (10) calendar days of your receipt of this letter. The response must be signed by a responsible official or agent of your company. Violation of federal UST regulations may result in penalties of up to $10,000 per UST system per day of violation. The response to the request in Attachment II must be submitted to the following address:

Marianna Dominguez,
Environmental Engineer
RCRA Compliance Branch
U.S. Environmental Protection Agency
Region 2
290 Broadway, 22nd floor
New York, New York 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested. The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Section 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in, 40 C.F.R. Part 2. EPA will review the information to determine the extent of confidentiality of the information, and may, at its discretion, challenge the confidentiality claim pursuant to the procedures set forth at 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act, 44 U.S.C. §§3501 et seq.

Failure to respond to this letter truthfully and accurately within the time provided may subject you to an enforcement action pursuant to Section 9006 of RCRA, 42 U.S.C. § 6991e.

In order to assist you in understanding 40 C.F.R. Part 280 (the UST requirements) and 40 C.F.R. Part 279 (used oil requirements), we have enclosed copies of 40 C.F.R. Part 280, 40 C.F.R. Part 279 and a pamphlet entitled "Requisitos Para Generadores de Aceite Usado".

If you have any questions concerning the information requested, please contact Marianna Dominguez at (212) 637-4154. Thank you for your cooperation.

Sincerely yours,

Conrad Simon, Director
Division of Enforcement and Compliance Assistance

Enclosures

cc: Carl Soderberg, Director
Caribbean Environmental Protection Division

Carmelo Vázquez, Chief
Inspection, Monitoring & Surveillance Section, EQB

Attachment I

INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must sign the attached Certification of Answers and return it with the response to this Request for Information.

2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.

4. In answering each question, identify all contributing sources of information.

5. It is your responsibility to try to obtain any information pertinent to any question. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.

6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.

7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner the number of the question to which it applies.

8. If anything is deleted from a document produced in response to the Request for Information, state the reason for and the subject matter of the deletion.

9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. Unless the question clearly provides otherwise, each question must be answered for the UST located in the Owens-Illinois de Puerto Rico, Vega Alta facility.

11. The company, for the purposes of the Request for Information, is Owens-Illinois de Puerto Rico, Carretera 690, Km. 1.7, Barrio Sabana Hoyo, Vega Alta, PR 00692.

12. Underground storage tank or UST shall be defined, for the purposes of this Request for Information, as any one or combination of tanks (including pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. See 40 C.F.R. § 280.12.

13. Underground storage tank system or UST system shall be defined, for the purposes of this Request for Information, as an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any. See 40 C.F.R. § 280.12.

14. A facility, for the purposes of this information gathering, is defined as the property on which USTs are located.

Attachment II

Your letter dated May 20, 1997, submitted in response to the EPA March 11, 1997 initial Request for Information Pursuant to RCRA § 9005, was reviewed and evaluated, and as a result, the following issues must be addressed in your response:

1. During the December 1996 inspection, Mr. Rosa lead the inspector to the mechanic's garage when asked where the used oil handling facilities are located. Mr. Rosa informed the inspector that the used oil from Owens Illinois de Puerto Rico's vehicles was changed in the mechanic's garage and stored in the Underground Storage Tank (UST) located there. This was done until 2 years ago. Mr. Rosa indicated at the time of the inspection, that the referenced UST is cleaned every two months and that Safety Kleen collects the sludge from the bottom of the UST and that Ochoa also does it. When the inspector put a stick inside the tank, there were at least two feet of sludge in the bottom of the UST. No receipts were available at the time of the inspection to show the frequency of the UST clean ups.

   (a) Mr. Rosa stated, in the May 20, 1997 response that this UST is a "sump". The Region believes that what the response refers to as a "sump" is in reality a UST. However, for the time being and until the matter is clarified, the Region is willing to refer to it as a unit. Therefore, please demonstrate why this unit does not meet the definition of an UST;

   (b) In his response dated May 20, 1997, Mr. Rosa indicated that the used oil was never collected in the unit, referenced above and that company personnel cleaned the unit. These statements are inconsistent with what Mr. Rosa indicated during the inspection. Please explain these discrepancies.

2. Mr. Rosa stated in his May 20, 1997 response that only washwaters are stored in the unit referenced above. No tests were provided in the response to the 9005 letter to identify the contents of the unit. Please provide test results for the contents of the unit for the last three years, to determine if the contents of the unit are subject to the hazardous waste regulations under Subtitle C of RCRA.

3. What is the basis for your conclusion that the unit referenced above, is "a waste water collection tank", exempt from the UST regulations under RCRA § 9001. Please send all necessary documents to support your statement.

4. Item 14 of the May 20, 1997 response indicated that the unit referenced above is cleaned periodically by company personnel by removing its contents for recycling with a pump into a portable tank. Please indicate the amount of oil removed, on a monthly basis, from:
(a) the unit and
(b) from the portable tank that are associated with the 10,000 gallon used oil above ground tank.
(c) Please describe how the transfers from the unit to the portable tank and from the portable tank to the oil skimmer are done. How often is this done?

Additionally, provide documentation, such as an operating log, to substantiate this information, and photographs showing the skimmer and the filter. Copies of analysis done to the influent to the skimmer must also be submitted.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____

Name (print or type)

_____ _____

SIGNATURE DATE

EXHIBIT M

8/11/1997 OIPR's Response to USEPA's RCRA § 9005 Request for Information

August 11, 1997

VIA FAX AND FEDEX

Marianna Dominguez
Environmental Engineer
Division of Enforcement and
Compliance Assistance
U. S. EPA - Region II
290 Broadway, 22nd Floor
New York, NY 10007-1866

Re: Owens-Illinois of Puerto Rico
RCRA §9005 Request for Information

Dear Ms. Dominguez:

This letter constitutes Owens-Illinois of Puerto Rico ("Owens-Illinois") response to the Request for Information dated July 2, 1997, sent by the U. S. Environmental Protection Agency - Region II, pursuant to the provisions of Section 9005 of the Resource Conservation and Recovery Act ("RCRA"). The RCRA Section 9005 Information Request was received by Owens-Illinois on July 11, 1997. Owens-Illinois' responses are attached to this letter.

In my capacity as Owens-Illinois' Plant Engineer I have either personal knowledge or responsibility over the activities referred to in the Request for Information. I believe that the response to EPA's Request for Information provided herein by Owens-Illinois constitutes a true, accurate and complete response.

Please call us if you have any questions or need any further information.

Cordially yours,

Milton Rosa

Owens-Illinois of Puerto Rico
RCRA §9005 Request for Information

Responses:

1. a. As previously reported, the "unit" is used as a sump used for the collection of the fork lift wash waters. We answered in the May 20, 1997 response that Owens-Illinois considers this sump to be outside the scope of Subtitle I of RCRA and, thus, not subject to jurisdiction under the UST regulations, because it is used to collect waste waters, and thus is covered under the waste water collection tank exclusion under Section 9001(1) of RCRA.

The "unit" is and has always been used to collect the wash waters generated from the washing of fork lifts, not for the storage of used oil. Fork lifts are normally washed once every month with a pressure washer on the mentioned wash room. The wash waters may contain traces or a film of oily material resulting from the washing of the vehicles or from incidental drips from the oil storage rack located outside the fork lift wash room. However, used oil has never being drained or discharged into the "unit".

Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman; Rafael Burgos, Fork Lift Mechanic; and, Gabriel Andino, Systems and Mechanics Crew Leader.

b. There are no discrepancies between what Mr. Rosa mentioned during the inspection and the May 20, 1997 response. Mr. Rosa recalls that this matter was clarified with the EPA inspector after Rafael Burgos, the fork lift mechanic, mentioned to him that the area was only used to clean the forklifts and not to perform the oil changes. In fact Maricarmen Rodríguez, from the Puerto Rico Environmental Quality Board who accompanied the EPA inspector during the December 12, 1996 visit, asked Rosa to clarify this matter to the EPA inspector because she was confused about the correct facts because Rosa had told her initially that the "unit" was used to collect the used oil instead of the wash waters. Rosa recalls that he specifically clarified this matter with the EPA inspector before the conclusion of the inspection by stating to her that the "unit" was only used to collect fork lift wash waters instead of used oil from Owens-Illinois vehicles.

Contributing sources of information in this response are: Juan Pérez, Mechanic Foreman, and Gabriel Andino, Systems and Mechanics Crew Leader.

2. There are no analyses in our files of the wash waters referred to in the Request for Information.

3. As explained in our May 20, 1997 response, the "unit" has always been used to collect the wash waters from the fork lift washing operation. The company's fork lifts are normally washed once every month with a pressure washer at the mentioned wash room. A biodegradable industrial cleaner is used to remove oil stains in the fork lifts. All the wash waters flow and are collected in the "unit" for their eventual recycling as explained below. The dirt removed from the fork lifts settles at the bottom of the "unit" facilitating the recycling of the wash waters at the plant.

   The wash waters may contain traces or a film of oily material resulting from the washing of the vehicles or from incidental drips from the oil storage rack located outside the fork lift wash room which may flow into the "unit" as a terciary containment device. The "unit" has never been used to collect used oil drained from fork lifts.

   The "unit" is cleaned periodically by company personnel who remove its liquid content with a pump into a portable tank and transferred in a fork lift to the facility's oil skimmer area. At the skimmer area, any oil residue present in the wash waters is removed, filtered, and automatically pumped to the 10,000 gallon used oil tank for burning as an alternate fuel at the facility's sand plant dryer and glass melting furnaces. All the water is used as cooling water for the glass reject channels at the plant. The sludge material removed from the "unit" is properly disposed of through permitted waste handling contractors.

4. a. No records are maintained on the amount of oil residue removed from the "unit".

   b. No records are maintained on the amount of oil residue removed from the portable tank.

   c. The transfers from the "unit" to the portable pump is performed by company personnel with a portable pump. From the portable tank to the receiving trench("cullet waters trench") at the oil skimmer area is done in a similar fashion by company personnel with a portable pump. This activity is performed regularly about every 3 months. There is no operating log maintained at the facility regarding this operation. Photographs of the skimmer and filter were submitted in the May 20, 1997 response (Appendix F). There are no analysis of the influent to the skimmer.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Michael Rosa

Name (print or type)

Michael Rosa

SIGNATURE

9-11-97

DATE

Method: [illegible] Sa[illegible] [illegible] [illegible] Operator: MC
Run Time: 02/15/[illegible] [illegible]
Comment: SAMPLE
Mode: CONC Corr. Factor: 50

Elem	Ag	Al	As	Ba	Be	Cd	[illegible]
Units	ppm	ppm	ppm	ppm	ppm	ppm	[illegible]
Avge	L.1000	L.0000	L.0000	L.2775	[illegible]	[illegible]	[illegible]
SDev	.1600	.1150	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
%RSD	35.01	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
#1	L.0508	L.0000	L.7883	L.1104	L.0205	[illegible]	[illegible]
#2	L.0510	L.0000	L.0000	L.0007	L.0000	[illegible]	[illegible]
#3	L.0811	L.0000	L.0000	L.0400	L.0205	L.0000	[illegible]
Errors	LC Low	LC Low	LC Low	LC Low	LC Low	LC Low	LC L
High	15000.	50000.	50000.	10000.	7500.	12500.	[illegible]
Low	5.000	2.500	5.000	1.000	1.000	1.000	1.00

Elem	Cu	Fe	Hg	Mn	Ni	Pb	Sb
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avge	5.112	72.[illegible]	L4.000	L.0000	L.0507	6.302	[illegible]
SDev	.050	[illegible]	.150	.0424	.0058	.603	[illegible]
%RSD	[illegible]	[illegible]	3.702	27.[illegible]	33.20	8.178	[illegible]
#1	[illegible]	71.[illegible]	L4.704	L.0000	L.0360	6.205	[illegible]
#2	[illegible]	72.[illegible]	L4.115	L.0000	L.0981	[illegible]	[illegible]
#3	[illegible]	72.[illegible]	L4.098	L.0000	L.0360	7.028	[illegible]
Errors	LC Pass	LC Pass	LC Low	LC Low	LC Low	LC Pass	LC L
High	15000.	25000.	50000.	10000.	37500.	[illegible]	[illegible]
Low	1.000	1.000	5.000	1.000	1.000	[illegible]	[illegible]

Elem	Se	Sn	Ti	Tl	Zn
Units	ppm	ppm	ppm	ppm	ppm
Avge	L.0000	L1.322	71.78	L.5258	88.[illegible]
SDev	2.743	[illegible]	.17	4.320	.38
%RSD	282.7	20.70	.2019	861.3	[illegible]
#1	L.0000	[illegible]	74.68	L.0000	88.18
#2	L.0000	L1.390	74.68	L.0000	88.94
#3	L1.504	L.8987	71.98	L5.301	88.[illegible]
Errors	LC Low	LC Low	LC Pass	LC Low	LC Pass
High	50000.	50000.	25000.	75000.	10000.
Low	5.000	1.500	1.000	10.00	1.000

Appendix A

Appendix B

safety-kleen

Safety Kleen Envirosystems Company of P.R., Inc.

(787) 854-1090

RECOVERY PRODUCT SPECIFICATIONS

OWENS ILLINOIS DE PUERTO RICO INC.

Product:

USED OILS

Chromium:	10ppm max.
Cadmium:	2ppm max.
Arsenic:	5ppm max.
Lead:	100ppm max.
Halogens:	4000ppm (0.4%) max.
Flash Point:	100° F min.
P.C.B.:	50ppm max.
Heat Content (BTUs/lb):	as reported
Water (K.F.):	10wt% max.
Vanadium:	100ppm max.
*Sulfur:	1.4 wt% max. (See Note)

*Note: Sulfur analysis will be reported later by a contract laboratory.

The term "Off Specs" applies only to EPA Specs, not to Owens Illinois de P.R. Inc.

Customer Approval: _____ Date: 7-11-97

S.K. Branch Services Approval: _____ Date: _____

S.K. Laboratory Revision: _____ Date: _____

EXHIBIT N

10/28/1997 USEPA's RCRA § 3007 Information Request #3

OCT 2 8 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Milton Rosa
Plant Engineer
Owens-Illinois de Puerto Rico
P.O. Box 387
Vega Alta, Puerto Rico 00692

Re: RCRA § 3007 Information Request #3
Owens-Illinois de Puerto Rico
EPA ID # PRD090490285

Dear Mr. Rosa:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Part 6901 et seq.

On March 11, 1997, EPA Region II sent an initial request for information to you pursuant to Section 3007 of RCRA, 42 U.S.C. Section 6927, in order to evaluate compliance with used oil regulations at the Owens-Illinois Puerto Rico facility in Vega Alta, Puerto Rico. A reply was submitted by you dated May 20, 1997. Your reply was incomplete and a Second Information Request Letter was sent to you on July 3, 1997. Your response to this letter dated August 11, was received on August 25, 1997. It was reviewed and it was found out that it still does not adequately answer the questions asked in the EPA July 3 letter.

In order to clarify issues raised in your May 20, 1997 and in your August 11 responses to the Region's requests for information, you are hereby required to submit the information requested in Attachment II pursuant to the provisions of Section 3007 of RCRA, 42 U.S.C. Section 6927. EPA hereby requires that you provide the information requested in Attachment II to this letter using the instructions and definitions included in Attachment I. This information is required to evaluate the compliance of Owens-Illinois de Puerto Rico Facility.

Please provide the information requested no later than thirty (30) calendar days from receipt of this letter. Requests for additional time must be made within ten (10) calendar days of receipt of this letter, and must be justified. The response must be signed by a responsible official or agent of your company.

The response to the request in the attachment II must be mailed to the following addressee:

Marianna Dominguez
Environmental Engineer
Hazardous Waste Compliance Branch
U.S. Environmental Protection Agency - Region 2
290 Broadway, 22nd Floor
New York, New York 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested. The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret", "proprietary", or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Part 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act, 44 U.S.C. Part 3501 et seq, as amended.

Failure to respond in full to this requirement is a violation of RCRA and may result in federal enforcement action pursuant to Section 3008 of RCRA, 42 U.S.C. Section 6928.

If you have any questions about this letter, please call Miss Marianna Dominguez, of the Hazardous Waste Compliance Section, at (212) 637-4154.

Sincerely yours,

Original signed by
Conrad Simon

Conrad Simon, Director
Division of Enforcement and Compliance Assistance

Enclosures

cc: Carmelo Vasquez, Chief
Inspection, Monitoring & Surveillance Section, EQB

Carl Soderberg, Director
Caribbean Environmental Protection Division, USEPA

bcc: Marianna Dominguez, HWCS-RCB
Joel Golumbek, HWCS-RCB

Attachment I

INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must complete and return the attached Certification of Answers to Responses to Request for Information.

2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.

4. In answering each question, identify all contributing sources of information.

5. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.

6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.

7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner, the number of the question to which it applies.

8. If anything is deleted from a document produced in response to this Request for Information, state the reason for and the subject matter of the deletion.

9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages,

and all recipients and their addresses.

10. The company and/or facility for the purposes of this Request for Information, is Owens-Illinois de Puerto Rico, Carretera 690 Km.1.7, Barrio Sabana Hoyo, Vega Alta, P.R. 00692.

11. A generator of hazardous waste for the purposes of this Request for Information shall be defined as any person (which includes this facility), by site, whose act or process produces hazardous waste or whose act first causes a hazardous waste to become subject to regulation.

12. Solid waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(27) of RCRA, as amended, 42 U.S.C. Part 6903(27).

13. Hazardous waste shall be defined for the purposes of this Request for Information as that term is defined in Section 1004(5) of RCRA, as amended, 42 U.S.C. Part 6903(5).

14. Manage shall be defined for the purposes of this Request for Information as to market, generate, treat, store, dispose or otherwise handle.

ATTACHMENT II

Your response dated August 11, to the EPA July 3, 1997 Second RCRA § 3007 Information Request Letter, was reviewed and evaluated. As a result this third letter is issued in order to clarify concerns and discrepancies between your response to the questions and the inspector's observations during the inspection of the facility performed on December 12, 1996, and to request information that was previously requested but has still not been submitted.

Question 1

Please submit copies of all analytical results and/or documentation used in determining if solid waste(s) generated at Owens-Illinois was hazardous waste(s). If generator knowledge of the waste(s) was used to determine that the waste(s) was a hazardous waste, please provide a narrative which details the knowledge employed in such determination. In your responses dated May 20, 1997 and August 11, 1997, you indicated that you will provide this information.

Question 2

(a)Appendix B submitted in both your May 20, 1997 and your August 11 letters include a Safety Kleen test result for a sample SKL2372 which can not be read. Please submit a legible copy.

(b) This Appendix B also includes a Report of Analysis by Beckton Environmental Laboratories Inc., dated February 15, 1995 which shows results for Total Phosphorus of 365 mg/l. Please send a copy of the EPA Method 395.4 which you indicated was used by Beckton Environmental for this determination.

Question 3

The inspector observed during the December 12, 1996 inspection that the bottom of the pit (big hole) dug in the ground was covered with a thick layer of a brand new absorbent material as if it had just been thrown into it to cover a used oil spill. When the inspector made a remark in this regard, one of the Owens-Illinois' representatives scratched the absorbent material with a rod only to discover a thick used oil dark stain underneath the surface. In the inspector's opinion this used oil observed in this area was not due to accidental spills, nor is it "typical oily spots that are seen in the floor of automotive mechanic shops where oil changes and other mechanical jobs are performed", as Owens Illinois claimed. The inspector saw a forklift on top of the hole dug in the ground ready to be serviced, i.e., used oil change was going to be performed in this forklift, and there was no funnel or 5-gallon plastic container around there ready to be used, as shown in the photograph taken by the inspector. Please explain the discrepancy between the inspector's observations and your statements.

Question 4

Regarding the deep hole dug in the ground or pit, your August 11, 1997 response indicates that the oil stained soil removed before placement of the concrete wall, was disposed of by Safety Kleen as non-hazardous waste. Please provide test results that Safety Kleen conducted on the oil stained soil prior to disposal.

EXHIBIT O

12/1/1997 OIPR's Response to USEPA's RCRA § 3007 Information Request #3

OWENS-ILLINOIS
de Puerto Rico

December 1, 1997

VIA FAX & FEDEX

Marianna Dominguez
Environmental Engineer
Division of Enforcement and
Compliance Assistance
U.S. EPA - Region II
290 Broadway, 22nd floor
New York, NY 10007-1866

Re: Owens-Illinois de Puerto Rico
RCRA §3007 Request for Information

Dear Ms. Dominguez:

This letter constitutes Owens-Illinois of Puerto Rico ("Owens-Illinois") response to the Third Request for Information dated October 28, 1997, and received on November 3, 1997, sent by the U. S. Environmental Protection Agency - Region II, pursuant to the provisions of Section 3007 of the Resource Conservation and Recovery Act ("RCRA"). Owens-Illinois' responses are attached to this letter.

In my capacity as Owens-Illinois' Plant Engineer I have either personal knowledge or responsibility over the activities referred to in the Request for

Information. I believe that the response to EPA's Request for Information provided herein by Owens-Illinois constitutes a true, accurate and complete response.

In the letter signed by Mr. Conrad Simon which constitutes the Request for Information of reference, it is stated that Owens-Illinois' prior response, although dated August 11, 1997, was received on August 25, 1997. We do not understand how this could have happened in view that the response was sent via Federal Express next day delivery, as evidenced in the attached copy of the shipping document.

Please call us if you have any questions or need any further information.

Cordially yours,

Milton Rosa

yt

Attachments

cc: Dee J. Hillberry
Francis Torres

OWENS-ILLINOIS DE PUERTO RICO
RESPONSE TO THIRD RCRA § 3007 REQUEST FOR INFORMATION
December 1,1997

1. Owens-Illinois has used the services of Safety-Kleen and Ochoa Environmental Services for the disposal of the industrial wastes it generates in its Vega Alta facility. Prior to off-site shipment of these materials, the disposal contractors collect samples to determine waste characteristics and to pre-qualify the waste material to proper disposal. This process is conducted for every shipment of waste materials, except in the case of disposal of the same wastes or repeats. The disposal contractors retain such results in their files. In occasions, these results have been faxed to Owens-Illinois. In view of the fact that these faxed versions do not copy well, we have requested the mentioned disposal contractors to provide us with clear copies of all waste analysis in their possession. Once these are received, we will supplement this response and forward them to EPA. See attached letters.

In absence of analytical results, Owens-Illinois generally relies on the information contained in Material Safety Data Sheets of the material it handles and process knowledge to determine if a waste it has generated is a hazardous waste. However, as previously mentioned, waste disposal contractors sample the waste materials prior to shipment for off-site disposal.

2. (a) Enclosed please find a legible copy of the test result requested.

This sample pertains to a waste oil/water mix generated in 1995 from the washing of the 10,000 gallons used oil storage tank prior to the start of the energy recovery project with Safety-Kleen.

(b) We have requested Safety-Kleen to obtain from Beckton Environmental Laboratories a copy of the EPA Method 395.4 used by Beckton. See attached letter. Once we obtain the requested information we will provide it to EPA.

3. The pit referred to in the request for information is not only used for allowing access to the mechanics to perform oil changes to the fork lifts, but to perform other mechanical and maintenance work to these vehicles. The pit has never been used to accumulate oil drained from fork lifts. At the time of the inspection, an absorbent material typically used in vehicle maintenance and mechanics shops, known as Oil Dry Floor Absorbent, had been place in the floor of the access pit. Contrary to the observation of the EPA inspector referred to in the request for information, there was a funnel and plastic container used for the draining of the used oil from fork lifts present in the mechanic shop at the time of the inspection.

4. The small amount of oil stained soil that was removed before placement of the concrete walls and floor referred to as the "pit" in the request for information, was disposed of by Safety-Kleen together with the sludge removed from the wash water sump and the sand with drippings of Fuel No. 6 contained at the fuel pump area. Safety-Kleen has been requested to furnish a clear copy of the test results which will be forwarded to EPA upon their receipt by Owens-Illinois.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Mi Hon Rosa

Name (print or type)

[illegible] 12-3-97

SIGNATURE DATE

FEDERAL EXPRESS

1-800-24

PACKAGE TRACKING NUMBER 400-[illegible] 3861 0154

4 0 0 - 3 8 6 1 0 1 5 4

Date of Shipment	Origin Station I.D. (FedEx use only)	Dest. Station I.D. (FedEx use only)	URSA Routing (FedEx use only)
8 1197	LCS		

Sender's Federal Express Account Number: 1008-9146-1

Phone Number (Very Important): 717 843 5405

Your Name) Please Print: Milton ROSA

Company: SIEMENS ILLINOIS

Dept./Floor No.:

Street Address: INV 690 KM 1.1

City: VEGA ALTA

State/Province: PR

ZIP/Postal Code: 00692

Country: USA

2 Sender Internal Billing Reference Information (Optional) (First 24 Characters Will Appear On Invoice)

3 To (Recipient's Name) Please Print: Luciano Dominguez

Phone Number (Very Important To Ensure Delivery):

Company: Environmental Engineer

Dept./Floor No.: 22nd Floor

Exact Street Address: Division of Enforcement and

Exact Street Address: Compliance Assistance

City: U.S. EPA - Region II

State/Province:

Country: 290 Broadway New York NY

ZIP/Postal Code: 10007-1866

SERVICES Check Only One Box — Not all options available to all destinations

- [ ] International Priority — DESCRIPTION
- [ ] International Economy (Available to Puerto Rico only)

PACKAGING Must Check One Box

- [ ] FEDEX Letter Envelope
- [ ] FEDEX Pak
- [ ] Other Packaging

DELIVERY/HANDLING INSTRUCTIONS — Not all options available to all destinations

Check boxes required

- [ ] Broker Selection (fill in Below)
- [ ] Hold for Pick-up — DESCRIPTION
- [ ] Deliver Weekday
- [ ] Deliver Saturday

Broker Name:

Broker Telephone Number:

Broker ZIP/Postal Code:

DANGEROUS GOODS — Does this shipment contain dangerous goods?

- [ ] No
- [ ] Yes Shipper's Declaration (As per attached)
- [ ] Dry Ice — Cargo Aircraft Only

TRANSPORTATION CHARGES — Not all options available to all destinations

- [X] Bill Sender
- [ ] Credit Card
- [ ] Bill Recipient
- [ ] Cash/Check
- [ ] Bill 3rd Party

Fill in FEDEX Acct. or Credit Card No.

Exp. Date | Approval Code

8 DUTIES AND TAXES — Not all options available to all destinations

- [ ] Bill Sender
- [ ] Bill Recipient
- [ ] Bill 3rd Party

Shipments may be subject to duties and taxes at destination.

Fill in FEDEX Account No.

400-3861-0154

9 SHIPMENT INFORMATION

No. of pkgs.	Total Weight	Country of Manufacture	Specify Currency of Declared Value	Total Declared Value for Carriage	Total Declared Value for Customs
1	6.1 [ ] lbs [ ] kgs	US	USD	1.00	1.00

Complete Description of Contents/Harmonized Code: DOCS

Identification Number for Customs purposes (e.g., UN/VAT/EIN., or as locally required)

For Commodities Over US $2500 or those which require a US validated Export License, attach a completed Shipper's Export Declaration form and check here. [ ]

If filing by SEC 30.39 FTSR no SED required

Fill in C.A.S. No.

10 SENDER'S SIGNATURE

By giving us your shipment, you agree to the conditions on the back of this Non-Negotiable Air Waybill. Certain international treaties, including the Warsaw Convention, may apply to this shipment and limit our liability for damage, loss or delay, as described in the Conditions of Contract.

Warning: Commodities licensed by U.S. for ultimate destination must be listed on a separate Shipper's Export Declaration. Under U.S. law, diversion to another destination is prohibited.

You are not authorization to deliver this shipment without a recipient signature.

SENDER'S SIGNATURE Required X [signature]

FOR FEDEX USE ONLY

- [ ] DIM Shipment — Chargeable Weight ____ [ ] lbs. [ ] kgs. — Total Volume ____ [ ] in. [ ] cm.
- [ ] CI Attached
- [ ] SED Attached
- [ ] CD Attached

Received At	Base Charges	Dec. Val./Chrg.	Other	ODA/DPA	Total
					7.16

Fed Emp. ID

Date / Time

Audit

OWENS-ILLINOIS
de Puerto Rico

December 1, 1997

VIA FAX & MAIL

Safety-Kleen Envirosystems Co.
of Puerto Rico, Inc.
Call Box 31098
Manatí, PR 00674-1098
Attention: Luis Classen

Re: Owens-Illinois of Puerto Rico

Dear Mr. Classen:

Please furnish legible copies of any and all analytical results of wastes generated by Owens-Illinois of Puerto Rico ("Owens-Illinois") since 1992 until the present. This information has been requested from Owens-Illinois by the U. S. Environmental Protection Agency - Region II ("EPA"), pursuant to the provisions of Section 9005 of the Resource Conservation and Recovery Act ("RCRA").

In addition, we have been requested by EPA to furnish a copy of the EPA Method 395.4 that was used by Beckton Environmental Laboratories, as informed in a Report of Analysis dated February 15, 1995. Please request Beckton a copy of the aforementioned reference method.

We will appreciate your cooperation in obtaining the above requested information. Please call us if you have any question.

Cordially yours,

Milton Rosa

OWENS-ILLINOIS
de Puerto Rico

December 1, 1997

VIA FAX & MAIL

Ochoa Environmental Services
P.O. Box 363968
San Juan, P.R. 00936-3968
Attention: Gilda Irrizarry

Re: Owens-Illinois of Puerto Rico

Dear Ms. Irrizarry:

Please furnish legible copies of any and all analytical results of wastes generated by Owens-Illinois of Puerto Rico ("Owens-Illinois") since 1992 until the present. This information has been requested from Owens-Illinois by the U. S. Environmental Protection Agency - Region II ("EPA"), pursuant to the provisions of Section 9005 of the Resource Conservation and Recovery Act ("RCRA").

We will appreciate your cooperation in obtaining the above requested information. Please call us if you have any question.

Cordially yours,

Milton Rosa

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Appendix B

safety-kleen

Safety Kleen Envirosystems Company of P.R., Inc.

(787) 854-1090

RECOVERY PRODUCT SPECIFICATIONS

OWENS ILLINOIS DE PUERTO RICO INC.

Product:

USED OILS

Chromium	10ppm max.
Cadmium	2ppm max.
Arsenic	5ppm max.
Lead	100ppm max.
Halogens	4000ppm (0.4%) max.
Flash Point	100°F min.
PCB	50ppm max.
Heat Content (BTU's/lb)	as reported
Water (KF)	10wt% max.
Vanadium	100ppm max.
*Sulfur	1.4 wt% max. (See Note)

*Note: Sulfur analysis will be reported later by a contract laboratory.

The term "Off Specs" applies only to EPA Specs, not to Owens Illinois de P.R. Inc.

Customer Approval: _____ Date: 7-11-97

S.K. Branch Services Approval: _____ Date: _____

S.K. Laboratory Revision: _____ Date: _____

EXHIBIT P

10/28/1997 USEPA's Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA) – Request #3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

OCT 2 8 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Milton Rosa
Plant Engineer
Owens-Illinois de Puerto Rico
P.O. Box 387
Vega Alta, Puerto Rico 00692

Re: Request for Information Pursuant to Section 9005 of the Resource Conservation and Recovery Act (RCRA)-Request #3
Owens-Illinois de Puerto Rico
EPA ID #PRD090490285

Dear Mr. Rosa:

The U.S. Environmental Protection Agency (EPA) is charged with the protection of human health and the environment under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 et seq.

On March 11, 1997, EPA Region II sent an initial request for information to you pursuant to section 9005(a) of RCRA, 42 U.S.C.§ 6991d(a), and 40 C.F.R. § 280.34 in which the Region sought information regarding an underground storage tank (UST) located at the Owens-Illinois de Puerto Rico facility in Vega Alta, Puerto Rico. A reply was submitted by you dated May 20, 1997.

On July 2, 1997, EPA Region II sent a second request for information to you pursuant section 9005(a) of RCRA, 42 U.S.C. §6991d(a), and 40 C. F. R. § 280.34 in which the EPA sought clarification of concerns raised in your May 20, 1997 response to the EPA March 11, 1997 letter. Your response dated August 11, 1997, was received on August 25, 1997 and it was reviewed.

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (40% Postconsumer)

In order to clarify certain issues raised in your August 11, 1997 response to the Region's second request for information, you are hereby required, pursuant to Section 9005(a) of RCRA, 42 U.S.C.§ 6991d(a), and 40 C.F.R. § 280.34, to submit the information requested in Enclosure II, for the underground storage tank (UST) system located at Owens-Illinois de Puerto Rico facility in Vega Alta, P. R., using the instructions and definitions in Enclosure I. This information is necessary to determine whether said UST system is in compliance with Subtitle I of RCRA, as amended, 42 U.S.C. § 6991 et seq., and the regulations promulgated pursuant thereto and set forth at 40 C.F.R. Part 280.

Please provide the information requested no later than thirty (30) calendar days from the date of receipt of this letter. Requests for additional time must be justified, and must be requested within ten (10) calendar days of your receipt of this letter. The response must be signed by a responsible official or agent of your company. Violation of federal UST regulations may result in penalties of up to $10,000 per UST system per day of violation. The response to the request in Enclosure II must be submitted to the following addressee:

Marianna Dominguez,
Environmental Engineer
RCRA Compliance Branch
U.S. Environmental Protection Agency
290 Broadway, 22nd floor
New York, New York 10007-1866

You may, if you so desire, assert a business confidentiality claim covering all or part of the information herein requested. The claim may be asserted by placing on (or attaching to) the information at the time it is submitted, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret," "proprietary," or "company confidential". The claim should set forth the information requested in 40 Code of Federal Regulations (40 C.F.R.) Section 2.204(e)(4). Information covered by such a claim will be disclosed by EPA only to the extent permitted by, and by means of procedures set forth in, 40 C.F.R. Part 2. EPA will review the information to determine the extent of confidentiality of the information, and may, at its discretion, challenge the confidentiality claim pursuant to the procedures set forth at 40 C.F.R. Part 2. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

This information request is not subject to the requirements of the Paperwork Reduction Act, 44 U.S.C. §§3501 et seq, as amended.

Failure to respond to this letter truthfully and accurately within the time provided may subject you to an enforcement action pursuant to Section 9006 of RCRA, 42 U.S.C. § 6991e.

If you have any questions concerning the information requested, please contact Marianna Dominguez at (212) 637-4154. Thank you for your cooperation.

Sincerely yours,

Conrad Simon, Director
Division of Enforcement and Compliance Assistance

Enclosures

cc: Carl Soderberg, Director
Caribbean Environmental Protection Division

Carmelo Vázquez, Chief
Inspection, Monitoring & Surveillance Section, EQB

ENCLOSURE 1

INSTRUCTIONS AND DEFINITIONS

In responding to this Request for Information, apply the following instructions and definitions:

1. The signatory should be an officer or agent who is authorized to respond on behalf of the company or facility. The signatory must sign the attached Certification of Answers and return it with the response to this Request for Information.

2. A complete response must be made to each individual question in this request for information. Identify each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all present and former employees and agents of the company or facility who you have reason to believe may be familiar with the matter to which the question pertains.

4. In answering each question, identify all contributing sources of information.

5. It is your responsibility to try to obtain any information pertinent to any question. If you are unable to answer a question in a detailed and complete manner or if you are unable to provide any of the information or documents requested, indicate the reason for your inability to do so. If you have reason to believe that there is an individual who may be able to provide more detail or documentation in response to any question, state that person's name and last known address and phone number and the reasons for your belief.

6. If you cannot provide a precise answer to any question, please approximate and state the reason for your inability to be specific.

7. For each document produced in response to this Request for Information, indicate on the document or in some other reasonable manner the number of the question to which it applies.

8. If anything is deleted from a document produced in response to the Request for Information, state the reason for and the subject matter of the deletion.

9. If a document is requested but is not available, state the reason for its unavailability. In addition, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. Unless the question clearly provides otherwise, each question must be answered for the UST located in the Owens-Illinois de Puerto Rico, Vega Alta facility.

11. The company, for the purposes of the Request for Information, is Owens-Illinois de Puerto Rico, Carretera 690, Km. 1.7, Barrio Sabana Hoyo, Vega Alta, PR 00692.

12. Underground storage tank or UST shall be defined, for the purposes of this Request for Information, as any one or combination of tanks (including pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. See 40 C.F.R. § 280.12.

13. Underground storage tank system or UST system shall be defined, for the purposes of this Request for Information, as an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any. See 40 C.F.R. § 280.12.

14. A facility, for the purposes of this information gathering, is defined as the property on which USTs are located.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____

Name (print or type)

_____ _____

SIGNATURE DATE

ENCOSURE II

Your letter dated August 11, 1997 submitted in response to the EPA July 2, 1997 initial Request for Information Pursuant to RCRA § 9005, was reviewed and evaluated, and as a result, the following issues must be addressed in your response:

1. According to 40 C.F.R. § 280.10(b)(2) a wastewater treatment tank system is excluded from the requirements of the 40 C.F.R. Part 280 Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs) if it is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act. Please demonstrate that the "unit" is regulated under section 402 or 307(b) of the Clean Water Act.

2. In your responses dated May 20 and August 11, 1997 you claim that the "unit is and has always been used to collect the washwaters generated from the washing of fork lifts, not from the storage of used oil." At the time of the inspection, the inspector observed that the color, odor, and viscosity of the contents of the "unit" was the same as that of used oil. Furthermore, the inspector noted and took pictures of two hoses coming out of the wall, through holes perforated through the wall in between the room where the oil storage rack is and the "unit" room. From there the hoses go inside the "unit" through the grate on top of the "unit". These hoses collect the raw oil drippings from the rack. These did not appear to be incidental drippings. The faucets of the raw oil containers appeared to be faulty. There was a constant dripping to a gutter that is connected to the hoses at the time of the inspection. The raw oil, once it is spilled and no longer used for the purpose of its intended use, becomes used oil. Also the inspector put a stick inside the "unit" to determine its depth, since nobody knew it and there were no drawings or technical specifications or level gages for this "unit". The stuff that came out from the bottom of the tank was not washwater, it was oily sludge, smelling as used oil, dark as used oil and sticky as used oil. Please explain how what you call washwater can have such characteristics?

3. In the EPA letter of March 11, 1997, EPA requested information on test results of the contents of the "unit" for the last three years. You responded on May 20, 1997 that "As of the date of this response, there are no results of chemical analyses performed to samples taken from the sump." In the same letter you said that "the sludge that was recently removed from the sump is currently stored at the facility's temporary waste storage area and will be disposed of once the results of a waste characterization analysis are received." On July 2, 1997 EPA requested for the second time that you provide test

results for the contents of the "unit" for the last three years. You indicated in your response dated August 11, 1997 that "There are no analyses in our files of the washwaters referred to in the Request for Information". You also indicated in your response dated August 11, 1997, in item 3, that "The sludge material removed from the "unit" is properly disposed of through permitted waste handling contractors."

EPA is asking you for the third time whether you have taken any tests of the waste contents in the "unit". If so, please provide any test results for the waste contents in the "unit". If you have not tested the waste contents in the "unit", please do so now and provide test results.

4. Regarding the sludge removed in May 1997, mentioned in item 3 above, please indicate:
a)how much sludge was removed from the "unit"
b)how was the sludge disposed and by whom
c)where was the sludge disposed
d)how many times has the "unit" been cleaned since EPA's last inspection in December 1996, and when.

5. Please submit the technical specifications of the new concrete underground tank which consists of the hole which the inspector found dug in the ground during the December 1996 inspection. Owens Illinois built concrete walls and a concrete bottom into this hole so that it appears to be a new underground tank.

Please answer the following questions regarding this new underground tank:

(a) Please describe the operation and contents of this new concrete underground tank.

(b) Submit all information/documentation that demonstrates compliance with 40 C.F.R § 280, Subparts B, C, and D.

EXHIBIT Q

12/1/1997 OIPR's Response to USEPA's RCRA § 9005 Request for Information

OWENS-ILLINOIS
de Puerto Rico

December 1, 1997

VIA FAX & FEDEX

Marianna Dominguez
Environmental Engineer
Division of Enforcement and
Compliance Assistance
U.S. EPA - Region II
290 Broadway, 22nd floor
New York, NY 10007-1866

Re: Owens-Illinois de Puerto Rico
RCRA §9005 Request for Information

Dear Ms. Dominguez:

This letter constitutes Owens-Illinois of Puerto Rico ("Owens-Illinois") response to the Third Request for Information dated October 28, 1997, and received on November 3, 1997, sent by the U. S. Environmental Protection Agency - Region II, pursuant to the provisions of Section 9005 of the Resource Conservation and Recovery Act ("RCRA"). Owens-Illinois' responses are attached to this letter.

In my capacity as Owens-Illinois' Plant Engineer I have either personal knowledge or responsibility over the activities referred to in the Request for

Information. I believe that the response to EPA's Request for Information provided herein by Owens-Illinois constitutes a true, accurate and complete response.

In the letter signed by Mr. Conrad Simon which constitutes the Request for Information of reference, it is stated that Owens-Illinois' prior response, although dated August 11, 1997, was received on August 25, 1997. We do not understand how this could have happened in view that the response was sent via Federal Express next day delivery, as evidenced in the attached copy of the shipping document.

Please call us if you have any questions or need any further information.

Cordially yours,

Milton Rosa

yt

Attachments

cc: Dee J. Hillberry
Francis Torres

OWENS-ILLINOIS DE PUERTO RICO
RESPONSE TO THIRD RCRA § 9005 REQUEST FOR INFORMATION
December 1,1997

1. Owens-Illinois de Puerto Rico (O-I) has not claimed, and does not claim, that the "unit" falls within the exemption for wastewater treatment tanks set forth at 40 CFR § 280.10(b)(2). Rather, and as explained in O-I's submittals dated May 20 and August 11, 1997, the sump or "unit" has always been used to collect the fork lift wash waters located at the mechanic's garage. As such, it falls within the statutory exclusion set forth at RCRA § 9001 (1)(F), 42 U.S.C. § 6991 (1)(F). This statutory exclusion provides that a "storm water or waste water collection system" is not included within the definition of "underground storage tank" regulated under RCRA Subtitle I. This statutory exclusion is further codified at 40 CFR § 280.12:

> "*Underground storage tank* or *UST* means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which ... is 10 percent or more beneath the surface of the ground. This term does not include any:
>
> (a) ...
>
> (f) Storm-water or wastewater collection system:
>
> (g) ..."

40 CFR § 280.12 (emphasis added).

Section 280.12 defines the term "storm-water or wastewater collection system":

> "*Storm-water or wastewater collection system* means piping pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm-water and wastewater does not include treatment except where incidental to conveyance."

Sumps that are part of a storm-water or wastewater collection system are excluded by statute from UST regulations. Preamble to the UST regulations, 53 F.R. 37082, 37110 (September 23, 1988).

Moreover, the "unit" does not receive and treat an influent wastewater through physical, chemical, or biological methods, as a "wastewater treatment tank" would. See, 40 CFR § 280.12.

2. As explained in O-I's prior submittals, the "unit" is used to collect the wash waters generated from the washing of fork lifts. Fork lifts are normally washed once every month, by hosing them with a pressure washer while the lifts are parked over the sump of reference. All the wash waters flow into, and are collected in, the sump.

The fork lift maintenance mechanic, who performs the washing activity, occasionally uses a biodegradable industrial cleaner to remove stubborn oil stains from the fork lifts. Thus, the wash waters may contain traces or a film of oily material or from incidental drips from the oil storage rack located outside the fork lift wash room which may flow into the sump as a tertiary containment device.

The sump is cleaned periodically by company personnel by removing its contents with a pump into a portable tank and transferring it by fork lift to the facility's oil skimmer area. There, any oil residue present in the wash waters is removed, filtered, and automatically pumped to the 10,000 gallon used oil tank for burning as an alternate fuel for the sand plant dryer and glass melting furnaces. The waters are used as cooling water for the glass reject channels at the facility.

The faucets attached to the oil drums in the oil storage rack located outside the fork lift wash room are immediately closed after use to prevent loss of product. If the EPA inspector saw oil drippings from the drums in the oil storage rack at the time of the inspection, these could only have been incidental. If one of the faucets was faulty at the time of the inspection to the extent that there was a constant drip of oil from the oil rack, this matter would have caught the attention of the Owens-Illinois personnel accompanying the EPA inspector and immediate action would have been taken to prevent product loss.

3. As mentioned in our prior two(2) responses dated March 11 and May 20, 1997, Owens-Illinois has not performed test of the contents of the sump. The sludge that was removed from the sump was mixed with oil stained soil removed from an access pit at the mechanic's shop and with sand contaminated with fuel No. 6, that dripped from a faulty pump seal within the secondary containment area adjacent to the main fuel storage tank, to facilitate proper disposal. Although the sludge/contaminated sand mixture was tested by the disposal contractor for waste characterization, Owens-Illinois does not consider that these results are responsive to the specific inquiry presented by EPA.

Pursuant to EPA's specific request included in the Request for Information dated October 28, 1997, Owens-Illinois has arranged for the testing of the contents

of the sump. See attached letter. Results will be provided to EPA once these are received.

4. (a) Approximately 30 to 50 gallons.

(b) After the wash waters were removed through the use of a pump, the remaining sludge (approximately 2" deep) was manually removed with shovels by Owens-Illinois personnel and placed in a steel drum. Clean sand was poured into the empty sump to assist in the removal of the sludge. The sludge was disposed of by Safety-Kleen together with the oil stained soil removed from the pit and with dirty sand removed from the fuel pump dike area mentioned in response no. 3, above.

(c) Safety-Kleen disposed the materials. See attached waste manifest associated with this waste shipment.

(d) Once, on May 30, 1997.

5. (a) As discussed in the response to question 1, above, the sump is not a UST by definition. However, and in good faith, its operation and contents are explained in the response to question 2, above.

(b) As discussed in the response to question 1, above, the sump is not, by definition, a UST. Thus, 40 CFR 280 Subparts B, C and D are not applicable thereto.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in response to EPA's Request for Information, and all documents submitted herewith; that the submitted information is true, accurate, and complete; and that all documents submitted herewith are complete and authentic, unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Phil How Rosa
Name (print or type)

[signature] 12-3-97
SIGNATURE DATE

FEDERAL EXPRESS

INTERNATIONAL AIR WAYBILL

FOR ALL U.S. EXPORT SHIPMENTS, INCLUDING SHIPMENTS BETWEEN THE U.S. AND THE ... Call 800-247-4747 for Full Customs Service

400-3861 0154 PACKAGE TRACKING NUMBER

Date of Shipment	Origin Station I.D. (FedEx use only)	Dest. Station I.D. (FedEx use only)	URSA Routing (FedEx use only)
08 11 97	JCS		

1 Sender's Federal Express Account Number

1009-5[illegible]-1

Phone Number (Very Important): 787 883 5800

FROM (Your Name) Please Print: Milton Losa

Company: OWENS ILLINOIS

Dept./Floor No.:

Exact Street Address: HWY 690 KM 1.1

Exact Street Address:

City: VEGA ALTA

State/Province: [illegible]

Country: USA

ZIP/Postal Code: [illegible]

2 Sender Internal Billing Reference Information (Optional) (First 24 Characters Will Appear On Invoice)

3 TO (Recipient's Name) Please Print: Marianna Dominguez

Phone Number (Very Important To Ensure Delivery):

Company: Environmental Engineer

Dept./Floor No.: 22nd floor

Exact Street Address: Division of Enforcement and Compliance Assistance

Exact Street Address:

City: US EPA - Region 11

State/Province:

Country: 290 Broadway New York NY

ZIP/Postal Code: 10007-1866

4 SERVICES Check Only One Box — Not all options available to all destinations

1 ☐ International Priority ☐ DESCRIPTION

3 ☐ International Economy (Available to Puerto Rico only) ☐

5 PACKAGING Must Check One Box

5 ☐ FEDEX Letter/Envelope 2 ☐ FEDEX Pak 1 ☐ Other Packaging

6 DELIVERY/HANDLING INSTRUCTIONS Check boxes required — Not all options available to all destinations

1 ☐ Hold for Pick-up 11 ☐ DESCRIPTION

40 ☐ Broker Selection (Fill in Below) 2 ☐ Deliver Weekday 3 ☐ Deliver Saturday

Broker Name: 29 ☐

City/Country:

Broker Telephone Number: Broker ZIP/Postal Code:

DANGEROUS GOODS Does this shipment contain dangerous goods? ☐ No 4 ☐ Yes (As per attached Shipper's Declaration) 8 ☐ Dry Ice ___ lbs. CA ☐ Cargo Aircraft Only

7 TRANSPORTATION CHARGES Not all options available to all destinations

1 ☒ Bill Sender 4 ☐ Credit Card

2 ☐ Bill Recipient 4 ☐ Cash/Check

3 ☐ Bill 3rd Party

Fill in FEDEX Acct. or Credit Card No.

Exp. Date: / Approval Code:

8 DUTIES AND TAXES Not all options available to all destinations

1 ☐ Bill Sender

2 ☐ Bill Recipient

3 ☐ Bill 3rd Party

Shipments may be subject to duties and taxes at destination.

Fill in FEDEX Account No.

400-3861 0154

9 SHIPMENT INFORMATION

No. of pkgs.	Total Weight	Country of Manufacture	Specify Currency of Declared Value: Total Declared Value for Carriage	Total Declared Value for Customs
1	6.16 ☐ lbs ☒ kgs	USA	1.00	1.00

Complete Description of Contents/Harmonized Code: USD

Identification Number for Customs purposes (e.g., I.N./V.A.T./E.I.N., or as locally required):

For Commodities Over US $2500 or those which require a US validated Export License, attach a completed Shipper's Export Declaration form and check here. ☐

If filing by SEC 30.39 FTSR no SED required

Fill in C.A.S. No.

10 SENDER'S SIGNATURE

By giving us your shipment, you agree to the conditions on the back of this Non-Negotiable Air Waybill. Certain international treaties, including the Warsaw Convention, may apply to this shipment and limit our liability for damage, loss or delay, as described in the Conditions of Contract.

Warning: Commodities licensed by U.S. for ultimate destination must be listed on a separate Shipper's Export Declaration. Under U.S. law, diversion to another destination is prohibited.

This is not authorization to deliver this shipment without a recipient signature.

SENDER'S SIGNATURE Required X Miguelina Pelly

FOR FEDEX USE ONLY

☐ DIM Shipment Chargeable Weight ___ ☐ lbs. ☐ kgs. Total Volume ___ ☐ in. ☐ cm.

☐ CI Attached ☐ SED Attached ☐ CO Attached

Received At: 1 ☐ Regular Stop 3 ☐ Drop Box 4 ☐ Service Center 2 ☐ On-Call Stop 6 ☐ Station

Base Charges	Dec. Val. Chrg	Other	ODA/OPA	Total

FEC Emp. # ___ Date ___ Time ___

Audit Emp. # ___ Date ___ Time ___

116

SHIPPER COPY

RECEIVED ABOVE SHIPMENT IN GOOD CONDITION AND CONDITIONS WE AGREE TO PAY ALL CHARGES, DUTIES AND TAXES AS APPLICABLE AND TO THE CONDITIONS OF CONTRACT AS STATED ON THE REVERSE SIDE OF THIS DOCUMENT.

RECIPIENT'S SIGNATURE X

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ENVIRONMENTAL CONSULTING GROUP
P.O. Box 190064, San Juan, PR 00919-0064
Tel. (787) 759-0101 Fax: (787) 764-8097

CHAIN OF CUSTODY RECORD

Project No.

Project Name: Owens Illinois

Sample Collected by: M. Rosado

Matrix (A= aqueous; M= multiphasic; SD= sludge; O= oil; S= soil; ORG= organic)

Sta. No.	Date	Time	Comp	Grab	Sample ID	No. of Containers	Full RCRA	RCI	TCLP	Ig	React	Corr.	Other Oil & Grease	Other	Matrix	Remarks
	25/XI/97	10:00AM		1	Fingers Area	4	✓									
	25/XI/97	10:00AM		1		1							✓			

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)
Relinquished By: (Signature)	Date/Time	Received for Laboratory By: (Signature)	Remarks		

White - Original Yellow - File Copy Pink - Customer Copy

Customer signature: [signature]

COMMONWEALTH OF PUERTO RICO
ENVIRONMENTAL QUALITY BOAR
P.O. Box 11488, Santurce, Puerto Rico 00910

Environmental Quality Board

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. P R D 0 9 0 4 9 0 2 8 5 — Manifest Document No. 97009

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
OWENS ILLINOIS DE P.R.
P.O.BOX 387 (CARR.690,KM 1.1)
VEGA ALTA , P.R. 00692
62-1232

4. Generator's Phone (787) 883-5800 P.O. #007780

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name
SAFETY-KLEEN ENVIROSYSTEMS CO. OF P.R.

6. US EPA ID Number P R D 0 9 0 3 9 9 7 1 8

C. State Transporter's ID HW-02

D. Transporter's Phone (787) 854-1090

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Safety-Kleen Envirosystems Co. of Puerto Rico, Inc.
P.O. Box 31098, Hwy. 2 Km. 51.0
Manatí, Puerto Rico, 00674

10. US EPA ID Number P R D 0 9 0 3 9 9 7 1 8

G. State Facility's ID

H. Facility's Phone (787) 854-1090

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit WT/Vol	I. Waste No.
a. RQ, HAZARDOUS WASTE, SOLID ,N.O.S., (CADMIUM), 9,3 NA3077, PGIII, (EPA,D004,D006,D010) (RQ100)	008	DF	03200	P LB	(D004,D006) (D010)
b. NOT A US DOT REGULATED MATERIAL, NOT A US EPA HAZARDOUS WASTE.	0111	DF	010605	P LB	N/A
c. NOT A US DOT REGULATED MATERIAL, NOT A US EPA HAZARDOUS WASTE	0102	DF	010110	G	N/A
d. NOT A US DOT REGULATED MATERIAL, NOT A US EPA HAZARDOUS WASTE.	004	DM	00360	G	N/A

J. Additional Descriptions for Materials Listed Above
A) CONTROL # 2704808, ERG # 171.
B) CONTROL # 2704800.
C) CONTROL # 2606774.
D) CONTROL # 2606774.

K. Handling Codes for Wastes Listed Above
a,b) S01, S02, T50, T81.
c,d) S01, S02, T50, T81

15. Special Handling Instructions and Additional Information
IF UNDELIVARABLE , PLEASE RETURN TO GENERATOR
Special Handling Instructions and Additional Information: In case of spill: chemical resistant clothing and gloves should be worn, in addition to respirators masks capable of handling organic materials, safety glasses, goggles and any other safety equipment considered necessary to prevent direct contact with the materials included in the drums or tank trucks. In case of individual injuries: rest, remove contaminated clothes, immediately flush eyes with running water and wash skin with soap and plenty of water. If possible, transport to a Hospital; if not call Emergency Medical Care.

24 hours Emergency response information number INFOTRAC 1-800-468-1760 /TSDF (787)854-1090

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I and a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name (ON BEHALF OF)	Signature	Month	Day	Year
MILTON ROSA		10	30	97

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Sergio Rivera		10	30	97

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OF SPILL IMMEDIATELY CALL THE E... ONMENTAL QUALITY BOARD (809) 722-0439

EXHIBIT R

12/24/1997 OIPR's Response to RCRA § 3007 and § 9005 Requests for Information

GOLDMAN ANTONETTI & CORDOVA
ATTORNEYS AND COUNSELORS AT LAW
AMERICAN INTERNATIONAL PLAZA
FOURTEENTH FLOOR
250 MUÑOZ RIVERA AVENUE
HATO REY, PUERTO RICO 00918

FRANCIS TORRES
PARTNER
(787) 759-4125
FTORRES@GACLAW.COM

POST OFFICE BOX 70364
SAN JUAN, PUERTO RICO 00936-8364
TELEPHONE (787) 759-8000
TELECOPIER (787) 767-9333

December 24, 1997

VIA FEDEX

Keith N. Stuart, Esq.
Assistant Regional Counsel
U. S. EPA - Region II
290 Broadway, 16th Floor
New York, NY 10007-1866

Re: Owens-Illinois of Puerto Rico
RCRA §3007 and §9005 Requests for Information

Dear Mr. Stuart:

Enclosed please find copies of all the documents sent by Safety-Kleen in response to the Owens-Illinois' letter, included in the December 1997 responses to the RCRA §3007 and §9005 Requests for Information, requesting all analytical information associated with wastes materials disposed of through Safety-Kleen services. Also find enclosed a copy of the correspondence received from Ochoa Environmental Services in response to a similar letter from Owens-Illinois also included in the December 1997 responses to the RCRA §3007 and §9005 Requests for Information. We have asked Ochoa to provide through regular mail a more legible copy of the analytical information they sent by fax. Once it is received we will forward it to you.

Please call us if you have any questions or need any further information. Happy Holidays.

Cordially yours,

Francis Torres

Enclosure
cc: Milton Rosa

81363-R4784 PREQUALIFICATION EVALUATI / PAGE 1 OF 4
ENVIROSYSTEMS COMPLETED: 10/04/96
ENVIROSYSTEMS - FUELS REVISED: 10/10/96
RUN: 10/11/96

ACCEPT FOR SHIPMENT

safety-kleen

BRANCH/SUBMITTER: 010133 CONTROL #: 2611512-1
ENVIROSYSTEMS LAB #: 3179611512-9
SURVEY #: 1109344

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: ANGEL SANTIAGO

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: DIESEL

NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS: MANIFEST
CARRE 690 KM 1.1
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: BOILER
GENERATION AMOUNT: 165 GALLONS QUARTERLY PART#:

P.O. #: DATE SURVEY SIGNED: 09/20/96
CONTACT: ANGEL SANTIAGO TITLE: SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT

ACCEPT FOR SHIPMENT

CONTROL #: 2611512-1
BRANCH/SUBMITTER: 010133 LAB #: 3179611512-9
ENVIROSYSTEMS SURVEY #: 1109344

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087174 WASTE,WATER 55-1
REVIEW DATE: 10/04/1996 REVIEWERS: AAD KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001269 DRUM OR BULK RQ HAZARDOUS WASTE, LIQUID, N.O.S.
9 NA3082 PG III (D018)(ERG#171)

US EPA WASTE CODES: D018
USA

REVIEW COMMENTS:
****
*
* THE WASTE IS NOT D001 BASED ON LAB ANALYSIS.
*
PROPER SHIPPING DESCRIPTION WAS BASED ON KNOWLEDGE OF SIMILAR WASTES, AND WAS NOT BASED ON THIS SINGLE ANALYSIS.
*
* OK FOR HAZARDOUS WASTE WATER ONLY.
*
* RECD MOD FORM 10/10/96, GENERATOR AGREES TO MANIFEST AS HAZARDOUS AS D018
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

ACCEPT FOR SHIPMENT

CONTROL #: 2611512-1
BRANCH/SUBMITTER: 010133 LAB #: 3179611512-9
ENVIROSYSTEMS SURVEY #: 1109344

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: DK YELLOW
WATER CONTENT	: 99.8 WT%
NON-VOLATILE RESIDUE	: 0.2 WT% DESCRIPTION: SOLID
FLAMMABILITY	: NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 140 F BY SETAFLASH
PH	: DIRECT BY METER 7.7
RADIOACTIVITY	: NONE DETECTED
COMMENTS: SMALL BLACK OG LAYER/SMALL AMT BLACK SEDIMENT	

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: < 5000 BTU/LB	ASH UPON COMBUSTION	: < 5.0 WT%
TOTAL HALOGENS	: < 5.0 WT%		

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: < 1	ALUMINUM	AL:	17
ARSENIC (D004)	AS: < 15	BARIUM (D005)	BA: <	1
BERYLLIUM	BE: < 1	CALCIUM	CA:	222
CADMIUM (D006)	CD: < 1	COBALT	CO: <	5
CHROMIUM (D007)	CR: < 2	COPPER	CU:	1.7
IRON	FE: 15	MERCURY (D009)	HG: <	10
POTASSIUM	K : < 50	MAGNESIUM	MG: <	15
MANGANESE	MN: < 1	MOLYBDENUM	MO: <	2
SODIUM	NA: 34	NICKEL	NI: <	10
PHOSPHORUS	P : < 30	LEAD (D008)	PB: <	10
ANTIMONY	SB: < 15	SELENIUM (D010)	SE: <	20
TIN	SN: < 10	TITANIUM	TI: <	2
THALLIUM	TL: < 80	VANADIUM	V : <	3
ZINC	ZN: < 5			

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOTA (WT%
AQUEOUS PHASE (FREE WATER)	100.0	100.
ORGANIC PHASE (FEEDSTOCK)	0.0	0.
BOTTOM SLUDGE (SEMISOLIDS)	0.0	0.
BOTTOM SOLID (SETTLED SOLIDS)	0.0	0.
TOTAL	100.0	100.

TOTAL PHASE SPECIFIC GRAVITY: .975 VISCOSITY (CENTIPOISE): < 50 CP

SPECIFIC COMPOSITION OF TOTAL SAMPLE COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	99.8	99.8
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	0.2	0.2
VOLATILE ORGANICS BY DIFFERENCE	0.0	0.0
TOTAL	100.0	100.0

ACCEPT FOR SHIPMENT

CONTROL #: 2611512-1
BRANCH/SUBMITTER: 010133 LAB #: 3179611512-9
ENVIROSYSTEMS SURVEY #: 1109344

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: NEAT
DETECTION METHODS : FID, FID

COMPOSITION OF: COMPOUND NAME	VOLATILE ORGANICS (WT%)	TOTAL SAMPL (WT%
NO VOLATILE ORGANICS DETECTED (<0.1% EACH) CODE: NONE CAS NUMBER:	100.0	0.
TOTAL	100.0	0.

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: R SEG CODE: REVIEWERS: TLM TLM LAB: PREQ NEW CASTLE
RELEASED: 10/03/96 ANALYZED: 10/03/96 SUBMITTED: 09/30/96
COMMENTS: LOW BTU <5000/ZN <5 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

R E V I S I O N N O T E S ** (10/10/96) **

DISPOSITION FROM:MI
TO:A
APP FACILITY FROM: 000000
TO:000650
REVIEWERS FROM:AAD
TO:AAD KAW
STD COMMENTS FROM:QUEST ND001 999 HWW
TO: ND001 999 HWW
MANUAL COMMENT UPDATED FROM
DOES GEN. AGREE TO MANIFEST AS D018?

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

81363-R4784
ENVIROSYSTEMS
OWENS ILLINOIS DE PR

REQUALIFICATION EVALUATION
MANIFEST INFORMATION

REVISED: 10/10/96
RUN: 10/11/96
CONTROL #: 2611512-1
SAMPLE #: 1109344

QUIRED MANIFEST FORM: PR

SAFETY-KLEEN CORP. PROVIDES THIS MANIFESTING INFORMATION FOR INSTRUCTIONAL PURPOSES ONLY. ALL THE INFORMATION IS BELIEVED TO BE ACCURATE, BUT IS KNOWN TO BE INCOMPLETE. FEDERAL AND STATE REGULATIONS AND THE INSTRUCTIONS ON THE MANIFEST FORM SHOULD BE CONSULTED FOR COMPLETE INFORMATION. IN ADDITION, CERTAIN VARIATIONS MAY BE ALLOWED BY REGULATIONS, BUT NEED TO BE APPROVED BY A SAFETY-KLEEN REPRESENTATIVE PRIOR TO SHIPMENT.

UNIFORM HAZARDOUS WASTE MANIFEST	1. GENERATORS US EPA NO. PRD090490285	DOCUMENT NO.	2.PAGE 1	UNDERLINED AREAS ARE REQUIRED

3. GENERATOR NAME AND MAILING ADDRESS

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
SABANA THORP/PO BOX 387
VEGA ALTA PR 00692-038

4. GENERATOR PHONE 809 725 5800

A. STATE MANIFEST DOCUMENT NO

B. STATE GENERATOR ID

5. TRANSPORTER 1 CO NAME SAFETY-KLEEN CORP.	6. US EPA ID NO ILD984908202	C. ST TRANS ID D. TRANSPORTER PHONE
TRANSPORTER 2 CO NAME	8. US EPA ID NO	E. ST TRANS ID F. TRANSPORTER PHONE

9. FACILITY NAME AND SITE ADDRESS

SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674

10. US EPA ID NUMBER
PRD090399718

G. FACILITY STATE I

H. FACILITY PHONE
809 854 1090

11. US DOT DESCRIPTION	CONTAINER	I. WASTE NO
A. HM. RQ HAZARDOUS WASTE, LIQUID, N.O.S. 9 NA3082 PG III (D018)(ERG#171)		N/

J. ADDITIONAL DESCRIPTION FOR THE MATERIALS LISTED ABOVE

IA) D018

K. HANDLING CODE

15. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

EMERGENCY RESP#800-468-1760(24 HR). IF UNDELIVERABLE, RETURN TO GENERATOR

81363-R4784 SAFETY-KLEEN CORP. PAGE 1 OF

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674

EPA ID: PRD090399718

UNDER MANIFEST NUMBER LINE NUMBER
THE GENERATOR NOTED BELOW IS SHIPPING TO YOU A RESTRICTED WASTE UNDER FEDERAL AND STATE LAND DISPOSAL RESTRICTION REGULATIONS.
IN ACCORDANCE WITH THESE REGULATIONS, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED AND THE EPA WASTE CODES AND APPROPRIATE TREATMENT STANDARDS ARE AS FOLLOWS:

HAZARDOUS WASTE CODES: D018

TREATABILITY GROUP: WASTEWATERS

UNIVERSAL TREATMENT STANDARDS (U.T.S) REGULATED CONSTITUENT - COMMON NAME	TREATMENT STANDARD CONCENTRATION (TOTAL MG/L, UNLESS NOTED AS "TCLP")

GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WILL MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO LAND DISPOSAL. **

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD CONCENTRATION OR TECHNOLOGY CODE
D018	BENZENE	0.14 MG/L ****

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE SOLVENT RECOVERY OR USE AS FUEL PRIOR TO LAND DISPOSAL.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HWSA-AUTHORIZED STATES.
****AND MEET UNIVERSAL TREATMENT STANDARDS
*****NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

GENERATOR NAME: OWENS ILLINOIS DE PR EPA ID: PRD090490285

GENERATOR SIGNATURE (OPTIONAL): _____

NAME & TITLE (OPTIONAL): _____

SAFETY-KLEEN SAMPLE NUMBER: 1109344 CONTROL NUMBER: 2611512-I

81363-R4784
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

PREQUALIFICATION EVALUATION

COMPLETED: 04/22/9
REVISED: 07/02/9
RUN: 07/03/9

ACCEPT FOR SHIPMENT

safety-kleen

BRANCH/SUBMITTER: 010137
ENVIROSYSTEMS

CONTROL #: 2704800-4
LAB #: 3179704800-3
SURVEY #: 1121647

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA, PR 006920387 PRI

ATTN: JUAN PEREZ

SALESPERSON: 010137 - LUIS CLASSEN

GENERAL DESCRIPTION: BACK HOUSE FILTERS

NATURE OF BUSINESS: GLASS RECYCLER S.I.C.: STATUS: LQG

FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS:
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA, PR PRI 006920387

BILLING ADDRESS:

PROCESS DESCRIPTION: REPLACEMENT

GENERATION AMOUNT: 550 GALLONS ONE TIME ONLY PART#:

P.O. #: DATE SURVEY SIGNED: 04/10/97

CONTACT: JUAN PEREZ TITLE: MECHANICS SUPV PHN: 787-883-5800

2606775

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PA

ENVIROSYSTEMS COMPLETED: 04/22/97
ENVIROSYSTEMS - FUELS REVISED: 07/02/97
RUN: 07/03/97

ACCEPT FOR SHIPMENT

CONTROL #: 2704800-4
BRANCH/SUBMITTER: 010137 LAB #: 3179704800-3
ENVIROSYSTEMS SURVEY #: 1121647

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087198 WASTE,SPNHAZSLD 55-1
REVIEW DATE: 04/22/1997 REVIEWERS: AAD

APPROVED FACILITIES:

SAFETY-KLEEN CORP.
581 MILLIKEN DR SE
HEBRON, OH 43025
FED EPA#: OHD980587364
STATE EPA#:
TELEPHONE: 6149293532
STATE AUTH:

SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
PRD090399718

8098541090

SAFETY-KLEEN CORP.
3700 LAGRANGE ROAD
SMITHFIELD, KY 40068
FED EPA#: KYD053348108
STATE EPA#:
TELEPHONE: 5028452453
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0005499 DRUM OR BULK FILTERS
(NOT USDOT OR USEPA HAZARDOUS MATERIAL)

EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:

****

*
* PROPER SHIPPING DESCRIPTION WAS BASED ON THIS SINGLE ANALYSIS. GENERATOR
* MUST CERTIFY THAT SHIPMENT IS NOT HAZARDOUS. PER COMPANY POLICY, FRS
* CUSTOMERS MUST COMPLETE GENERATOR CERTIFICATION WITH EACH SHIPMENT
* AND BRANCH WILL FILE IN CUSTOMER RECORDS.
*
* OK FOR THERMAL DESTRUCTION AS USEPA NON-HAZARDOUS SOLIDS. WASTE WILL BE
* SHIPPED TO A WASTE-TO-ENERGY INCINERATOR FOR MUNICIPAL TRASH. WASTE SHIPPED
* IN DRUMS FROM THE CUSTOMERS SITE NEED TO BE EQUIPPED WITH A BUNG ON THE TOP
* LID PRIOR TO SHIPMENT. DRUMS RECEIVED FROM THE CUSTOMER LACKING BUNGS WILL
* BE RETURNED TO THE CUSTOMER BY THE SK TSDF.
*
* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* WASTE APPROVAL HAS BEEN RECEIVED.
*
* NONHAZ SOLIDS THROUGH HEBRON AND NEW CATLE ONLY DUE TO HIGH SULFUR. 7/2/97

****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS LLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION. IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

ACCEPT FOR SHIPMENT

CONTROL #: 2704800-4
BRANCH/SUBMITTER: 010137 LAB #: 3179704800-3
ENVIROSYSTEMS SURVEY #: 1121647

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: WHITE RAGS
WATER CONTENT	: 0.5 WT%
NON-VOLATILE RESIDUE:	100.0 WT% DESCRIPTION: SOLID
FLAMMABILITY	: NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 140 F BY SETAFLASH
PH	: EXTRACT BY METER 5.9
RADIOACTIVITY	: NONE DETECTED
COMMENTS: H20 COMP: COMP;	

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: 10800 BTU/LB	ASH UPON COMBUSTION	: < 1.0 WT%
TOTAL BROMINE	BR: < 0.1 WT%	TOTAL FLUORINE	F : < 0.1 WT%
TOTAL SULFUR	S : 1.3 WT%	TOTAL CHLORINE	CL: 0.6 WT%

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

ZINC	ZN: <	20	VANADIUM	V : <	4
THALLIUM	TL: <	60	TITANIUM	TI:	1200
TIN	SN:	23000	SELENIUM (D010)	SE: <	75
ANTIMONY	SB:	170	LEAD (D008)	PB: <	15
PHOSPHORUS	P : <	80	NICKEL	NI: <	20
SODIUM	NA:	81	MOLYBDENUM	MO: <	10
MANGANESE	MN:	2.8	MAGNESIUM	MG:	18
POTASSIUM	K : <	30	MERCURY (D009)	HG: <	20
IRON	FE:	200	COPPER	CU:	1.9
CHROMIUM (D007)	CR: <	5	COBALT	CO:	11
CADMIUM (D006)	CD: <	2	CALCIUM	CA:	80
BERYLLIUM	BE: <	1	BARIUM (D005)	BA:	2.7
ARSENIC (D004)	AS: <	40	ALUMINUM	AL:	33
SILVER (D011)	AG: <	2			

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOTA (WT%
AQUEOUS PHASE (FREE WATER)		0.0	0.
ORGANIC PHASE (FEEDSTOCK)		0.0	0.
BOTTOM SLUDGE (SEMISOLIDS)		0.0	0.
BOTTOM SOLID (SETTLED SOLIDS)		100.0	100.
TOTAL		100.0	100.

TOTAL PHASE SPECIFIC GRAVITY: .420 VISCOSITY (CENTIPOISE): > 50000 CE

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010137 CONTROL #: 2704800-4
ENVIROSYSTEMS LAB #: 3179704800-3
SURVEY #: 1121647

SPECIFIC COMPOSITION OF TOTAL SAMPLE

	COMPOSITION OF: TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%
WATER CONTENT.....	0.5	0.5
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	100.0	100.0
VOLATILE ORGANICS BY DIFFERENCE.....	0.0	0.0
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID

COMPOUND NAME	COMPOSITION OF: VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)	100.0	0
CODE: NONE CAS NUMBER:		
TOTAL	100.0	0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

ADDTNL ANALYTICAL INFO: HVOC(MG/KG):FTF <1.0; MECL <1.0; 111 <1.0; CCL4 <1.0
ADDTNL ANALYTICAL INFO: TCE <1.0; 112 <1.0; PERC <1.0; PDCB <1.0; ODCB <1.0

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: PREQ NEW CASTLE
RELEASED: 04/22/97 ANALYZED: 04/22/97 SUBMITTED: 04/16/97
COMMENTS: SPECIFIC GRAVITY REPORTED AS BULK DENSITY

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

R E V I S I O N N O T E S ** (07/02/97) **
SUB CTRY WSTE FROM:TX OUTS4091
TO:
APP FACILITY FROM: 000618
TO:000642

APP FACILITY FROM: 000000
TO:000658

MANUAL COMMENT ADDED
AUTOMATED COMMENTS
AUTOMATED COMMENTS

R E V I S I O N N O T E S ** (07/02/97) **
MANUAL COMMENT UPDATED FROM
*** ACCEPT FOR SHIPMENT

PREQUALIFICATION EVALUATION

COMPLETED: 04/22/97
REVISED: 07/02/97
RUN: 07/03/97

ACCEPT FOR SHIPMENT

CONTROL #: 2704800-4
LAB #: 3179704800-3
SURVEY #: 1121647

BRANCH/SUBMITTER: 010137
ENVIROSYSTEMS

AUTOMATED COMMENTS
AUTOMATED COMMENTS

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

81363-R4784
ENVIROSYSTEMS
OWENS ILLINOIS DE PR

PREQUALIFICATION EVALUATION
MANIFEST INFORMATION

REVISED: 07/02/97
RUN: 07/03/97
CONTROL #: 2704800-4
SAMPLE #: 1121647

REQUIRED MANIFEST FORM: PR

SAFETY-KLEEN CORP. PROVIDES THIS MANIFESTING INFORMATION FOR INSTRUCTIONA PURPOSES ONLY. ALL THE INFORMATION IS BELIEVED TO BE ACCURATE, BUT IS KNOWN TO BE INCOMPLETE. FEDERAL AND STATE REGULATIONS AND THE INSTRUCTIONS ON THE MANIFEST FORM SHOULD BE CONSULTED FOR COMPLETE INFORMATION. IN ADDITION, CERTAIN VARIATIONS MAY BE ALLOWED BY REGULATIONS, BUT NEED TO BE APPROVED BY A SAFETY-KLEEN REPRESENTATIVE PRIOR TO SHIPMENT.

UNIFORM HAZARDOUS WASTE MANIFEST	1. GENERATORS US EPA NO. PRD090490285	DOCUMENT NO.	2.PAGE 1	UNDERLINED AREA ARE REQUIRED

3. GENERATOR NAME AND MAILING ADDRESS

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA PR 00692-038

4. GENERATOR PHONE 787 725 5800

A. STATE MANIFEST DOCUMENT N

B. STATE GENERATOR ID

5. TRANSPORTER 1 CO NAME	6. US EPA ID NO	C. ST TRANS ID D. TRANSPORTER PHONE
7. TRANSPORTER 2 CO NAME	8. US EPA ID NO	E. ST TRANS ID F. TRANSPORTER PHONE

9. FACILITY NAME AND SITE ADDRESS 10. US EPA ID NUMBER

SAFETY-KLEEN CORP.
581 MILLIKEN DR SE OHD980587364
HEBRON, OH 43025

G. FACILITY STATE I

H. FACILITY PHONE
614 929 3532

11. US DOT DESCRIPTION	CONTAINER	I. WASTE NO
A. HM. FILTERS (NOT USDOT OR USEPA HAZARDOUS MATERIAL)		N/

J. ADDITIONAL DESCRIPTION FOR THE MATERIALS LISTED ABOVE

K. HANDLING CODE

15. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

EMERGENCY RESP#800-468-1760(24 HR). IF UNDELIVERABLE, RETURN TO GENERATOR.

81363-R4784
ENVIROSYSTEMS
OWENS ILLINOIS DE PR

PREQUALIFICATION EVALUATION
MANIFEST INFORMATION

REVISED: 07/02/97
RUN: 07/03/97
CONTROL #: 2704800-4
SAMPLE #: 1121647

REQUIRED MANIFEST FORM: PR

SAFETY-KLEEN CORP. PROVIDES THIS MANIFESTING INFORMATION FOR INSTRUCTIONA PURPOSES ONLY. ALL THE INFORMATION IS BELIEVED TO BE ACCURATE, BUT IS KNOWN TO BE INCOMPLETE. FEDERAL AND STATE REGULATIONS AND THE INSTRUCTIONS ON THE MANIFEST FORM SHOULD BE CONSULTED FOR COMPLETE INFORMATION. IN ADDITION, CERTAIN VARIATIONS MAY BE ALLOWED BY REGULATIONS, BUT NEED TO BE APPROVED BY A SAFETY-KLEEN REPRESENTATIVE PRIOR TO SHIPMENT.

UNIFORM HAZARDOUS WASTE MANIFEST	1. GENERATORS US EPA NO. PRD090490285	DOCUMENT NO.	2.PAGE 1	UNDERLINED AREA ARE REQUIRED

3. GENERATOR NAME AND MAILING ADDRESS

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA PR 00692-038

4. GENERATOR PHONE 787 725 5800

A. STATE MANIFEST DOCUMENT N

B. STATE GENERATOR ID

5. TRANSPORTER 1 CO NAME	6. US EPA ID NO	C. ST TRANS ID D. TRANSPORTER PHONE
7. TRANSPORTER 2 CO NAME	8. US EPA ID NO	E. ST TRANS ID F. TRANSPORTER PHONE

9. FACILITY NAME AND SITE ADDRESS 10. US EPA ID NUMBER

SAFETY-KLEEN CORP.
KM51 HWY #2 PRD090399718
MANATI, PR 00674

G. FACILITY STATE I:

H. FACILITY PHONE
809 854 1090

11. US DOT DESCRIPTION	CONTAINER	I. WASTE NO
A. HM. FILTERS (NOT USDOT OR USEPA HAZARDOUS MATERIAL)		N/

J. ADDITIONAL DESCRIPTION FOR THE MATERIALS LISTED ABOVE

K. HANDLING CODE

15. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

EMERGENCY RESP#800-468-1760(24 HR). IF UNDELIVERABLE, RETURN TO GENERATOR.

REQUIRED MANIFEST FORM: PR

SAFETY-KLEEN CORP. PROVIDES THIS MANIFESTING INFORMATION FOR INSTRUCTIONA PURPOSES ONLY. ALL THE INFORMATION IS BELIEVED TO BE ACCURATE, BUT IS KNOWN TO BE INCOMPLETE. FEDERAL AND STATE REGULATIONS AND THE INSTRUCTIONS ON THE MANIFEST FORM SHOULD BE CONSULTED FOR COMPLETE INFORMATION. IN ADDITION, CERTAIN VARIATIONS MAY BE ALLOWED BY REGULATIONS, BUT NEED TO BE APPROVED BY A SAFETY-KLEEN REPRESENTATIVE PRIOR TO SHIPMENT.

UNIFORM HAZARDOUS WASTE MANIFEST	1. GENERATORS US EPA NO. PRD090490285	DOCUMENT NO.	2.PAGE 1	UNDERLINED AREA ARE REQUIRED

3. GENERATOR NAME AND MAILING ADDRESS

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA PR 00692-038

4. GENERATOR PHONE 787 725 5800

A. STATE MANIFEST DOCUMENT N

B. STATE GENERATOR ID

5. TRANSPORTER 1 CO NAME	6. US EPA ID NO	C. ST TRANS ID D. TRANSPORTER PHONE
7. TRANSPORTER 2 CO NAME	8. US EPA ID NO	E. ST TRANS ID F. TRANSPORTER PHONE

FACILITY NAME AND SITE ADDRESS	10. US EPA ID NUMBER	G. FACILITY STATE I
SAFETY-KLEEN CORP. 3700 LAGRANGE ROAD SMITHFIELD KY 40068	KYD053348108	H. FACILITY PHONE 502 845 2453

11. US DOT DESCRIPTION	CONTAINER	I. WASTE NO
A. HM. FILTERS (NOT USDOT OR USEPA HAZARDOUS MATERIAL)		N/

J. ADDITIONAL DESCRIPTION FOR THE MATERIALS LISTED ABOVE	K. HANDLING CODE

15. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

EMERGENCY RESP#800-468-1760(24 HR). IF UNDELIVERABLE, RETURN TO GENERATOR.

81363-R4505
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

REQUALIFICATION EVALUATION

COMPLETED: 02/01/94
REVISED:
RUN: 04/28/94

ACCEPT FOR SHIPMENT

safety-kleen

BRANCH/SUBMITTER: 017200
ENVIROSYSTEMS

CONTROL #: 203766-1
LAB #: 29670-5
SAMPLE #: 355468

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
BARRIO SABANO THORP
VEGA ALTA, PR 00692 PRI

ATTN: MAGDA BERMUDZ

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: BRICK FROM TWO KILNS

NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS: MANIFEST
CARRE 690 KM 1.1
BARRIO SABANO THORP
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: GLASS PROCESS
GENERATION AMOUNT: 6600 GALLONS ONE TIME ONLY

P.O. #: NO CHARGE DATE SURVEY SIGNED: 01/17/94
ONTACT: MAGDA BERMUDZ TITLE: ENV ENG OF SECURITY PHN: 809-883-5800

ORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082108 WASTE,UNPROCESSABLE
REVIEW DATE: 01/28/1994 REVIEWERS: CAP JWH CAP

APPROVED FACILITIES:
SAFETY-KLEEN ENVIROSYSTEMS
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001048 DRUM RQ HAZARDOUS WASTE, SOLID, N.O.S.
9 NA3077 PG III (D006)(ERG#31)

US EPA WASTE CODES: D006 D007
USA

*
* MUST BE INCINERATED DUE TO NEW BIF REGS. GENERATOR
* SENT TCLP -FAILED FOR D006, D007
****

THIS SERVES AS NOTICE PER 40 CFR 264.12(B) THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS AND IS WILLING TO RECEIVE THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.

*** ACCEPT FOR SHIPMENT CONTINUED ON NEXT PAG

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 017200
ENVIROSYSTEMS

CONTROL #: 203766-1
LAB #: 29670-5
SAMPLE #: 355468

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: GRAY		
WATER CONTENT	: 0.2 WT%		
NON-VOLATILE RESIDUE	: 99.8 WT%	DESCRIPTION: SOLID	
FLAMMABILITY	: NO FLASH AT 75 F	BY SETAFLASH	
FLAMMABILITY	: NO FLASH AT 142 F	BY SETAFLASH	
PH	: EXTRACT BY METER	6.8	
RADIOACTIVITY	: NONE DETECTED		

COMMENTS: PH SCREEN BY METER/SG BY BULK DENSITY/H2O ESTD BY DIFF

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: < 50 BTU/LB	ASH UPON COMBUSTION	: 91.9 WT%
TOTAL FLUORINE	F : < 0.1 WT%	TOTAL CHLORINE	CL: < 0.1 WT%
TOTAL BROMINE	BR: < 0.1 WT%	TOTAL SULFUR	S : 2.7 WT%

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: 4	ALUMINUM	AL: 227		
ARSENIC (D004)	AS: 587	BARIUM (D005)	BA: 115		
BERYLLIUM	BE: 8	CALCIUM	CA: 24130		
CADMIUM (D006)	CD: 78	CHROMIUM (D007)	CR: 1328		
COPPER	CU: 33	IRON	FE: 892		
MERCURY (D009)	HG: < 10	POTASSIUM	K : 28850		
MAGNESIUM	MG: 40660	MANGANESE	MN: 78		
MOLYBDENUM	MO: < 1	SODIUM	NA: 61600		
NICKEL	NI: 4254	PHOSPHORUS	P : < 10		
LEAD (D008)	PB: 752	ANTIMONY	SB: < 1		
SELENIUM (D010)	SE: < 20	TITANIUM	TI: 259		
THALLIUM	TL: 102	ZINC	ZN: 208		

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOT (WT%
AQUEOUS PHASE (FREE WATER).....	0.0	0.
ORGANIC PHASE (FEEDSTOCK).....	0.0	0.
BOTTOM SLUDGE (SEMISOLIDS).....	0.0	0.
BOTTOM SOLID (SETTLED SOLIDS).....	100.0	100.
TOTAL	100.0	100.

TOTAL PHASE SPECIFIC GRAVITY: 1.259 VISCOSITY (CENTIPOISE): > 50000 C

SPECIFIC COMPOSITION OF TOTAL SAMPLE COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTA SAMPL (WT%
WATER CONTENT.....	0.2	0.
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	99.8	99.
VOLATILE ORGANICS BY DIFFERENCE.....	0.0	0.
TOTAL	100.0	100.

*** ACCEPT FOR SHIPMENT

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 017200
ENVIROSYSTEMS

CONTROL #: 203766-1
LAB #: 29670-5
SAMPLE #: 355468

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID

COMPOUND NAME	COMPOSITION OF: VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
TRACES OF VOLATILE ORGANICS DETECTED (<1.0% EACH)	100.0	0.0
CODE: TR CAS NUMBER: 0-27-1		
TOTAL	100.0	0.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: R LEVEL: 1 SEG CODE: REVIEWERS: KEP KEP
RELEASED: 01/31/94 ANALYZED: 01/27/94
COMMENTS: LOW BTU <5000/SOLID VISC >50,000/CA = 24,060 PPM/K = 29,210 PPM/MG = 38,980 PPM/NA = 61,830 PPM/ZN = 208 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN CCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITY.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN ENVIROSYSTEM EPA ID NO: PRD090399718

KM51 HWY #2 MANATI, PR 00674

Under manifest number _____ line number _____ (enter 11a, 11b, 11c, OR 11d) the generator noted below is shipping to you a waste determined to be restricted under 40 CFR Part 268. In accordance with 40 CFR 268.7, the generator hereby provides notice that the waste is restricted and the EPA waste code and the appropriate treatment standards are as follows:

EPA WASTE CODES: D006 D007

F001-F005 Spent Solvents — TREATMENT STANDARDS (total mg/l, except as noted by TCLP)

Regulated Hazardous Constituent	Wastewater W/Solvents	Check All That apply	All Other Solvent Wastes		Check All That Apply
Acetone	0.28	____	160		____
Benzene	0.07	____	3.7		____
N-Butyl alcohol	5.6	____	2.6		____
Carbon disulfide	0.014	____	4.8	TCLP	____
Carbon tetrachloride	0.057	____	5.6		____
Chlorobenzene	0.057	____	5.7		____
Cresol (m- and p-isomers)	0.77	____	3.2		____
o-Cresol	0.11	____	5.6		____
Cyclohexanone	0.36	____	0.75	TCLP	____
o-Dichlorobenzene	0.088	____	6.2		____
Ethyl acetate	0.34	____	33		____
Ethyl benzene	0.057	____	6.0		____
Ethyl ether	0.12	____	160		____
Isobutyl alcohol	5.6	____	170		____
Methanol	5.6	____	0.75	TCLP	____
Methylene chloride	0.089	____	33		____
Methylene chloride(from Pharm. Industry)	0.44	____	33		____
Methyl ethyl ketone	0.28	____	36		____
Methyl isobutyl ketone	0.14	____	33		____
Nitrobenzene	0.068	____	14		____
Pyridine	0.014	____	16		____
Tetrachloroethlyene	0.056	____	5.6		____
Toluene	0.08	____	28		____
1,1,1-Trichloroethane	0.054	____	5.6		____
1,1,2-Trichloroethane	0.03	____	7.6		____
1,1,2-Trichloro-1,2,2-trifluoroethane	0.057	____	28		____
Trichlorethylene	0.054	____	5.6		____
Trichloromonofluoromethane	0.02	____	33		____
Xylenes (total)	0.32	____	28		____

California List Prohibited Wastes	Level (mg/l)	Treatment Standard	
Halogenated Organic Compounds	1000.0	Incineration*	____
Nickel (Ni)	134.0	None	X
Thallium (Tl)	130.0	None	____
Chlorinated Biphenyls (PCB's)	50.0	Incineration	____

* These treatment standards do not preclude solvent recovery or use as fuel prior to land disposal.

Waste Descriptions and/or Treatment Subcategory — Treatment Standards Reference in 40 CFR and Technology Codes for 40 CFR 268.42(a)

Waste code	Description	Wastewaters		Check All That Apply	Nonwastewaters		Check All That Apply
D001:	Wastewaters (<1.0 wt% TOC and TSS)	268.42(a)	DEACT	____	NA		
	Low TOC Ignitable Liquids (<10 wt% TOC)	NA			268.42(a)	DEACT	____
	High TOC Ignitable Liquids (>10 wt% TOC)	NA			268.42(a)	RORGS, FSUBS, OR INCIN	____
D002	Corrosives, all subcategories & CA list	268.42(a)	DEACT	____	268.42(a)	DEACT	____
D004	Arsenic(As)	268.43(a)		____	268.41(a)		____
D005	Barium (Ba)	268.43(a)		____	268.41(a)		____
D006	Cadmium (Cd)	268.43(a)		____	268.41(a)		X
D007	Chromium (Cr)	268.43(a)		____	268.41(a)		X
D008	Lead (Pb)	268.43(a)		____	268.41(a)		____
D009:	Low Mercury Subcategory (<260 ppm Hg)	268.43(a)		____	268.41(a)		____
	High Mercury Subcategory (>=260 ppm Hg)	268.43(a)		____	268.42(a)	RMERC	____
D010	Selenium (Se)	268.43(a)		____	268.41(a)		____
D011	Silver (Ag)	268.43(a)		____	268.41(a)		____
F005	2-Ethoxyethanol	268.42(a)	INCIN*	____	268.42(a)	INCIN*	____
F005	2-Nitropropane	268.42(a)	INCIN*	____	268.42(a)	INCIN*	____
Other Codes	See attachment for supplemental list			____			____

This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45 for the above contaminants that are subject to treatment. (check if applicable) ____

Generator Name: OWENS ILLINOIS DE PR EPA ID: _____

Generator Signature: _____ Name & Title: _____

Safety-Kleen Sample Number: 355488 Control Number: 0203766-1

NOTE: The USEPA has not determined treatment standards for the new TCLP EPA Waste Numbers: D018 through D043.

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 1 OF 3
ENVIROSYSTEMS COMPLETED: 09/19/95
ENVIROSYSTEMS - FUELS REVISED:
RUN: 09/25/95

ACCEPT FOR SHIPMENT

CONTROL #: 2500753-7
LAB #: 3179500753-6
SURVEY #: 507181

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERATOR INFORMATION: CUSTOMER NUMBER: - -

OWENS ILINOIRER DE PR
CARNE 690 KM 1.1
VEGA ALTE, PR 00692 PRI

ATTN: MILTON ROSA

BRANCH: 010133 - ENVIROSYSTEMS

GENERAL DESCRIPTION: CLOTH WITH MECL
NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):
FACILITY ADDRESS: MANIFEST BILLING ADDRESS:
CARNE 690 KM 1.1 PO BOX 387
VEGA ALTE, PR PRI 00692 VEGA ALTE, PR PRI 00692
PROCESS DESCRIPTION: MFG
GENERATION AMOUNT: 110 GALLONS MONTHLY PART#:
P.O. #: DATE SURVEY SIGNED: 08/28/95
NTACT: MILTON ROSA TITLE: PLANT ENG PHN: 809-880-0000
CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082113 WASTE,THERML DEST-55
REVIEW DATE: 09/19/1995 REVIEWERS: MJK
APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:
APPROVED DOT - SHIPPING DESCRIPTION
0003443 DRUM OR BULK RQ WASTE COMBUSTIBLE LIQUID, N.O.S.
(ALIPHATIC AND AROMATIC HYDROCARBONS)
NA1993 PG III (F001)(ERG#27)
US EPA WASTE CODES: F001
USA
REVIEW COMMENTS:

****
*
* OK FOR THERMAL DESTRUCTION.
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, HAS CAPABILITY, HAS CAPACITY AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAG

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 2 OF 3
ENVIROSYSTEMS COMPLETED: 09/19/95
ENVIROSYSTEMS - FUELS REVISED:
RUN: 09/25/95

ACCEPT FOR SHIPMENT

CONTROL #: 2500753-7
BRANCH/SUBMITTER: 010133 LAB #: 3179500753-6
ENVIROSYSTEMS SURVEY #: 507181

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: BROWN & BLUE
WATER CONTENT	: 35.8 WT%
NON-VOLATILE RESIDUE	: 49.2 WT% DESCRIPTION: SOLID
FLAMMABILITY	: NO FLASH AT 75 F BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 142 F BY SETAFLASH
PH	: EXTRACT BY METER 6.7
RADIOACTIVITY	: NONE DETECTED

COMMENTS: PH SCREEN BY METER/SG BY BULK DENSITY/H2O ESTD BY DIFF

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	5400 BTU/LB	ASH UPON COMBUSTION	:	1.1 WT%
TOTAL CHLORINE	CL:	0.5 WT%	TOTAL BROMINE	BR: <	0.1 WT%
TOTAL FLUORINE	F : <	0.1 WT%	TOTAL SULFUR	S : <	0.1 WT%

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)	0.0	0.0
ORGANIC PHASE (FEEDSTOCK)	0.0	0.0
BOTTOM SLUDGE (SEMISOLIDS)	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)	100.0	100.0
TOTAL	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: .549 VISCOSITY (CENTIPOISE): > 50000 CPS

SPECIFIC COMPOSITION OF TOTAL SAMPLE COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	35.8	35.8
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	49.2	49.2
VOLATILE ORGANICS BY DIFFERENCE	15.0	15.0
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY

SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID

COMPOUND NAME COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
MEDIUM-BOILING HYDROCARBONS (C9-C13)	69.0	10.4
CODE: MHC CAS NUMBER: 8030-30-6		
XYLENES (ORTHO-, META-, AND PARA-)	16.1	2.4
CODE: XYLS CAS NUMBER: 1330-20-7		
TOTAL OTHERS (<1.0% EACH)	14.9	2.2
CODE: TO CAS NUMBER:		
TOTAL	100.0	15.0

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 3 OF
ENVIROSYSTEMS COMPLETED: 09/19/9
ENVIROSYSTEMS - FUELS REVISED:
RUN: 09/25/9

ACCEPT FOR SHIPMENT

CONTROL #: 2500753-7
BRANCH/SUBMITTER: 010133 LAB #: 3179500753-6
ENVIROSYSTEMS SURVEY #: 507181

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: R SEG CODE: REVIEWERS: TLM TLM LAB: PREQ NEW CASTLE
RELEASED: 09/16/95 ANALYZED: 09/16/95 SUBMITTED: 09/08/95
COMMENTS: SOLID VISC >50,000/ZN = 142 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITY.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

*** ACCEPT FOR SHIPMENT END OF DOCUMEN

81363-R4505

SAFETY-KLEEN CORP. PAGE 1 OF

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR.00674

EPA ID: PRD090399718

UNDER MANIFEST NUMBER _____ LINE NUMBER _____,
THE GENERATOR NOTED BELOW IS SHIPPING TO YOU A RESTRICTED WASTE UNDER FEDERAL AND STATE LAND DISPOSAL RESTRICTION REGULATIONS.
IN ACCORDANCE WITH THESE REGULATIONS, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED AND THE EPA WASTE CODES AND APPROPRIATE TREATMENT STANDARDS ARE AS FOLLOWS:

HAZARDOUS WASTE CODES: F001

TREATABILITY GROUP: NONWASTEWATERS

F001, F002, F003, F004 AND/OR F005 SPENT SOLVENT WASTES REGULATED HAZARDOUS CONSTITUENTS	TREATMENT STANDARD CONCENTRATION (TOTAL MG/L FOR WW, TOTAL MG/KG FOR NWW UNLESS NOTED AS "TCLP")
XYLENES (TOTAL) ***	28
XYLENES-MIXED ISOMERS **	30

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE SOLVENT RECOVERY OR USE AS FUEL PRIOR TO LAND DISPOSAL.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES.
****AND MEET UNIVERSAL TREATMENT STANDARDS EFFECTIVE 12-19-94.

GENERATOR NAME: OWENS ILINOIRER DE PR EPA ID: PRD090490285

GENERATOR SIGNATURE (OPTIONAL): _____

NAME & TITLE (OPTIONAL): _____

SAFETY-KLEEN SAMPLE NUMBER: 507181 CONTROL NUMBER: 2500753-7

81353-R4505 (REPRINT) PREQUALIFICATION EVALUATION

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 10/01/96
REVISED:
RUN: 10/03/96

ACCEPT FOR SHIPMENT

Safety-Kleen

CONTROL #: 2611384-8
LAB #: 3179611384-7
SURVEY #: 1109343

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: ANGEL SANTIAGO

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: COOKING OIL AND GREASE
NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS: MANIFEST	BILLING ADDRESS:
CARRE 690 KM 1.1	PO BOX 387
VEGA ALTA, PR PRI 00692	VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: COOKING
GENERATION AMOUNT: 165 GALLONS QUARTERLY PART#:
P.O. #: DATE SURVEY SIGNED: 09/20/96
CONTACT: ANGEL SANTIAGO TITLE: SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

ACCEPT FOR SHIPMENT

CONTROL #: 2611384-8
BRANCH/SUBMITTER: 010133 LAB #: 3179611384-7
ENVIROSYSTEMS SURVEY #: 1109343

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087174 WASTE,WATER 55-1
REVIEW DATE: 10/01/1996 REVIEWERS: CAP

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0005468 DRUM OR BULK WATER
(NOT USDOT OR USEPA HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:
****
*
* OK FOR WASTE WATER FUEL
*
* PROPER SHIPPING DESCRIPTION WAS BASED ON THIS SINGLE ANALYSIS. GENERATOR MUST CERTIFY THAT SHIPMENT IS NOT HAZARDOUS. PER COMPANY POLICY, FRS
* CUSTOMERS MUST COMPLETE GENERATOR CERTIFICATION WITH EACH SHIPMENT
* AND BRANCH WILL FILE IN CUSTOMER RECORDS.
*
* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* WASTE APPROVAL HAS BEEN RECEIVED.
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

ACCEPT FOR SHIPMENT

CONTROL #: 2611384-8
ANCH/SUBMITTER: 010133 LAB #: 3179611384-7
ENVIROSYSTEMS SURVEY #: 1109343

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: DK YELLOW
WATER CONTENT	: 92.4 WT%
NON-VOLATILE RESIDUE:	7.6 WT% DESCRIPTION: SOLID
FLAMMABILITY	: NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 140 F BY SETAFLASH
PH	: DIRECT BY METER 5.2
RADIOACTIVITY	: NONE DETECTED

COMMENTS: SLUDGE IS BLACK

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: < 5000 BTU/LB	ASH UPON COMBUSTION	: < 10.0 WT%
TOTAL BROMINE	BR: < 0.1 WT%	TOTAL CHLORINE	CL: < 0.1 WT%
TOTAL FLUORINE	F : < 0.1 WT%	TOTAL SULFUR	S : < 0.1 WT%

COMMENTS: TOTAL HALIDES <500 PPM BY HPLC

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: < 1	ALUMINUM	AL:	969
ARSENIC (D004)	AS: < 15	BARIUM (D005)	BA:	17
BERYLLIUM	BE: < 1	CALCIUM	CA:	1040
CADMIUM (D006)	CD: < 1	COBALT	CO: <	5
CHROMIUM (D007)	CR: 2	COPPER	CU:	11
IRON	FE: 696	MERCURY (D009)	HG: <	10
POTASSIUM	K : < 50	MAGNESIUM	MG:	82
MANGANESE	MN: 9	MOLYBDENUM	MO:	4
SODIUM	NA: 287	NICKEL	NI:	56
PHOSPHORUS	P : 183	LEAD (D008)	PB: <	10
ANTIMONY	SB: < 15	SELENIUM (D010)	SE: <	20
TIN	SN: < 10	TITANIUM	TI:	53
THALLIUM	TL: < 80	VANADIUM	V : <	3
ZINC	ZN: 35			

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOT (WT
AQUEOUS PHASE (FREE WATER).....	44.0	44
ORGANIC PHASE (FEEDSTOCK).....	0.0	0
BOTTOM SLUDGE (SEMISOLIDS).....	56.0	56
BOTTOM SOLID (SETTLED SOLIDS).....	0.0	0
TOTAL	100.0	100

TOTAL PHASE SPECIFIC GRAVITY: .981 VISCOSITY (CENTIPOISE): < 50 C

ENVIROSYSTEMS COMPLETED: 10/01/
ENVIROSYSTEMS - FUELS REVISED:
RUN: 10/03/

ACCEPT FOR SHIPMENT

CONTROL #: 2611384-8
BRANCH/SUBMITTER: 010133 LAB #: 3179611384-7
ENVIROSYSTEMS SURVEY #: 1109343

SPECIFIC COMPOSITION OF TOTAL SAMPLE COMPOSITION OF: TOTAL SAMPLE (WT%) TOTA SAMPL (WT%

WATER CONTENT		92.4	92.
NON-VOLATILE RESIDUE	DESCRIPTION: SOLID	7.6	7.
VOLATILE ORGANICS BY DIFFERENCE		0.0	0.
TOTAL		100.0	100.

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID

COMPOUND NAME	COMPOSITION OF: VOLATILE ORGANICS (WT%)	TOTA SAMI (WT
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)	100.0	
CODE: NONE CAS NUMBER:		
TOTAL	100.0	

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: R SEG CODE: REVIEWERS: MH MH LAB: PREQ NEW CASTI
RELEASED: 09/30/96 ANALYZED: 09/30/96 SUBMITTED: 09/25/96
COMMENTS: LOW BTU <5000/ZN = 35 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

ENVIROSYSTEMS
STEMS - FUELS
COMPLETED: 06/17/96
REVISED:
RUN: 10/03/97

ACCEPT FOR SHIPMENT

CONTROL #: 2606775-2
BR NCH/SUBMITTER: 010133 LAB #: 3179606775-1
EN IROSYSTEMS SURVEY #: 1035502

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRETERA 690 KM 1.1
BARID SUBANO
VEGA ALTA, PR 00692 PRI

ATTN: MIGUAL DORITA

SALESPERSON: 010137 - LUIS CLASSEN

GENERAL DESCRIPTION: WASTE PAINT SOLID FROM LUBRICATION

NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS: MANIFEST
CARRETERA 690 KM 1.1
BARID SUBANO
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: FOR PAINTING
GENERATION AMOUNT: 110 GALLONS MONTHLY PART#:

P.O. #: DATE SURVEY SIGNED: 06/03/96
CONTACT: MIGUAL DORITA TITLE: SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 06/17/96
REVISED:
RUN: 10/03/97

ACCEPT FOR SHIPMENT

CONTROL #: 2606775-2
LAB #: 3179606775-1
SURVEY #: 1035502

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082101 WASTE,SPEC. FUELS-55
REVIEW DATE: 06/17/1996 REVIEWER: KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 7878541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0003808 DRUM OR BULK RQ WASTE FLAMMABLE LIQUIDS, N.O.S.
(N-BUTYL ALCOHOL&ALIPHATIC HYDROCARBONS)
3 UN1993 PG III (F003)(ERG#128)

US EPA WASTE CODES: F003 D001
USA

REVIEW COMMENTS:
****

OK FOR FUEL. WASTE SHIPPED IN [illegible] TO BE
EQUIPPED WITH A BUNG ON THE TOP [illegible] BEING RECEIVED FROM
THE CUSTOMER LACKING BUNGS [illegible] BY THE CUSTOMER BY THE SK TEST.
****

[illegible] AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
[illegible] ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS
WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY KLEEN CORP. OF
ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 06/17/96
REVISED:
RUN: 10/03/97

ACCEPT FOR SHIPMENT

CONTROL #: 2606775-2
LAB #: 3179606775-1
SURVEY #: 1035502

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERAL ANALYSIS OF ORGANIC PHASE

COLOR	: BLACK
WATER CONTENT	: 0.7 WT%
NON-VOLATILE RESIDUE	: 7.8 WT% DESCRIPTION: SOLID
FLAMMABILITY	: NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	: FLASHED AT 140 F BY SETAFLASH
PH	: EXTRACT BY METER 11.6
NEUTRALIZATION	: 6.35 WT% OR 63.5 G/KG BASE
RADIOACTIVITY	: NONE DETECTED

COMMENTS: SOLIDS IS DK GRAY PAINT WASTE/SG BY BULK DENSITY

FUEL EVALUATION OF ORGANIC PHASE

HEAT CONTENT	: 17600 BTU/LB	ASH UPON COMBUSTION	: 1.9 WT%
TOTAL BROMINE	BR: < 0.1 WT%	TOTAL CHLORINE	CL: < 0.1 WT%
TOTAL FLUORINE	F : < 0.1 WT%	TOTAL SULFUR	S : < 0.1 WT%

COMMENTS: H2O ESTD BY DIFF ON SOLID

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: < 1	ALUMINUM	AL:	227
ARSENIC (D004)	AS: < 15	BARIUM (D005)	BA:	4
BERYLLIUM	BE: < 1	CALCIUM	CA:	43
CADMIUM (D006)	CD: < 1	COBALT	CO: <	5
CHROMIUM (D007)	CR: < 2	COPPER	CU:	3
IRON	FE: 1010	MERCURY (D009)	HG: <	10
POTASSIUM	K : < 50	MAGNESIUM	MG:	30
MANGANESE	MN: 12	MOLYBDENUM	MO: <	2
SODIUM	NA: 1242	NICKEL	NI: <	10
PHOSPHORUS	P : < 30	LEAD (D008)	PB: <	10
ANTIMONY	SB: < 15	SELENIUM (D010)	SE: <	20
TIN	SN: < 10	TITANIUM	TI:	14
THALLIUM	TL: < 80	VANADIUM	V : <	1
ZINC	ZN: 66			

GENERAL COMPOSITION:

COMPOSITION BY:	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)	0.0	0.0
ORGANIC PHASE (FEEDSTOCK)	90.0	88.7
BOTTOM SLUDGE (SEMISOLIDS)	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)	10.0	11.3
TOTAL	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY:	.927	VISCOSITY (CENTIPOISE):	> 50000 CPS
ORGANIC PHASE SPECIFIC GRAVITY:	.872	VISCOSITY (CENTIPOISE):	< 50 CPS

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 06/17/96
REVISED:
RUN: 10/03/97

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 2606775-2
LAB #: 3179606775-1
SURVEY #: 1035502

SPECIFIC COMPOSITION OF ORGANIC PHASE

COMPOSITION OF:	ORGANIC PHASE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	0.7	0.6
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	7.8	6.9
VOLATILE ORGANICS BY DIFFERENCE	91.5	81.2
TOTAL	100.0	88.7

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE, BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID, MASS-SPEC

COMPOUND NAME	COMPOSITION OF: VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
ALKYL BENZENES (TOTAL C9+) CODE: ABS CAS NUMBER:	82.7	67.2
BUTYL ALCOHOL, N- CODE: NBA CAS NUMBER: 71-36-3	11.4	9.3
XYLENES (ORTHO-, META-, AND PARA-) CODE: XYLS CAS NUMBER: 1330-20-7	4.2	3.4
TOTAL OTHERS (<1.0% EACH) CODE: TO CAS NUMBER:	1.7	1.4
TOTAL	100.0	81.2

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <
SAFETY-KLEEN REGULATED COMPOUNDS: NONE DETECTED

LABORATORY REVIEW: R SEG CODE: REVIEWERS: LS LS LAB: PREQ NEW CASTLE
RELEASED: 06/14/96 ANALYZED: 06/14/96 SUBMITTED: 06/14/96
COMMENTS: SOLID VISC >50,000

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

ACCEPT FOR SHIPMENT

8)363-R4505 SAFETY-KLEEN CORP. PAGE 1 OF

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674

EPA ID: PRD090399718

UNDER MANIFEST NUMBER LINE NUMBER
THE GENERATOR NOTED BELOW IS SHIPPING TO YOU A RESTRICTED WASTE UNDER FEDERAL AND STATE LAND DISPOSAL RESTRICTION REGULATIONS.
IN ACCORDANCE WITH THESE REGULATIONS, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED AND THE EPA WASTE CODES AND APPROPRIATE TREATMENT STANDARDS ARE AS FOLLOWS:

HAZARDOUS WASTE CODES: D002 D007

TREATABILITY GROUP: NONWASTEWATERS

UNIVERSAL TREATMENT STANDARDS (U.T.S) REGULATED CONSTITUENT - COMMON NAME	TREATMENT STANDARD CONCENTRATION (TOTAL MG/L, UNLESS NOTED AS "TCLP")

GENERATOR IS NOT REQUIRED TO LIST UNDERLYING CONSTITUENTS BECAUSE TREATER WI MONITOR FOR ALL REGULATED CONSTITUENTS PRIOR TO LAND DISPOSAL. **

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD CONCENTRATION OR TECHNOLOGY CODE
D002	ACID, ALKALINE, AND OTHER SUBCATEGORY MANAGED IN CWA, CWA-EQUIVALENT, OR CLASS I SWDA SYSTEMS. **	DEACT
D002	CORROSIVE CHARACTERISTIC WASTES THAT ARE MANAGED IN NON-CWA/NON-CWA-EQUIVALENT/ NON-CLASS I SDWA SYSTEMS. **	DEACT AND MEET UTS STDS
D002	CORROSIVES, ALL SUBCATEGORIES. ***	DEACT
D007	CHROMIUM (CR)	5.0 MG/L TCLP

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE SOLVENT RECOVERY OR USE AS FUEL PRIOR TO LAND DISPOSAL.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HWSA-AUTHORIZED STATES.
****AND MEET UNIVERSAL TREATMENT STANDARDS
*****NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

GENERATOR NAME: OWENS ILLINOIS DE PR EPA ID: PRD090490285

GENERATOR SIGNATURE (OPTIONAL): _____

NAME & TITLE (OPTIONAL): _____

SAFETY-KLEEN SAMPLE NUMBER: 1109342 CONTROL NUMBER: 2611440-

ACCEPT FOR SHIPMENT

CONTROL #: 2611440-7
RANCH/SUBMITTER: 010133 LAB #: 3179611440-6
ENVIROSYSTEMS SURVEY #: 1109342

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087174 WASTE,WATER 55-1
REVIEW DATE: 10/01/1996 REVIEWERS: CAP KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0005003 DRUM OR BULK RQ WASTE CAUSTIC ALKALI LIQUIDS, N.O.S.
(SODIUM HYDROXIDE)
8 UN1719 PG II (D002)(ERG#154)

US EPA WASTE CODES: D002 D007
USA

REVIEW COMMENTS:
****
*
* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* WASTE APPROVAL HAS BEEN RECEIVED.
*
* OK FOR HAZARDOUS WASTE WATER ONLY.
*
* THIS MATERIAL MUST BE MANIFESTED AS HAZARDOUS WASTE BECAUSE ONE OR MORE OF
* THE FOLLOWING WAS REPORTED IN THE SAMPLE ANALYSIS:
* *IGNITABILITY (FLASH AT 140F OR BELOW; D001 WASTE CODE); OR
* *CORROSIVITY (HIGH OR LOW PH; D002 WASTE CODE); OR
* *VOC (CONTAINS A COMPOUND NORMALLY CONSIDERED A LISTED WASTE;
* F-WASTE CODE); OR
* *TOXICITY (D004 THROUGH D011 OR D018 THROUGH D043 WASTE CODE(S)).
* SAMPLES FAILING FOR ONLY TOXICITY CAN BE ACCEPTED FOR NON-HAZARDOUS WASTE B
* PROVIDING A TCLP FOR THE FAILED CHARACTERISTIC(S).
*
* RECD MOD FORM 10/03/96, GENERATOR AGREES TO MANIFEST AS HAZARDOUS. KAW
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS
WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF
ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 2611440-7
LAB #: 3179611440-6
SURVEY #: 1109342

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DK BROWN
WATER CONTENT	:	87.4 WT%
NON-VOLATILE RESIDUE	:	12.6 WT% DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F BY SETAFLASH
PH	:	EXTRACT BY METER 13.5
NEUTRALIZATION	:	5.04 WT% OR 50.4 G/KG ALKALINITY AS NAOH
RADIOACTIVITY	:	NONE DETECTED

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: <	5000 BTU/LB	ASH UPON COMBUSTION	: <	15.0 WT
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL CHLORINE	CL: <	0.1 WT
TOTAL FLUORINE	F : <	0.1 WT%	TOTAL SULFUR	S : <	0.1 WT

COMMENTS: TOTAL HALIDES <500 PPM BY HPLC

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: <	1	ALUMINUM	AL:	35
ARSENIC (D004)	AS: <	15	BARIUM (D005)	BA:	17
BERYLLIUM	BE: <	1	CALCIUM	CA:	917
CADMIUM (D006)	CD: <	1	COBALT	CO: <	5
CHROMIUM (D007)	CR:	9	COPPER	CU:	2
IRON	FE:	1790	MERCURY (D009)	HG: <	10
POTASSIUM	K :	93	MAGNESIUM	MG: <	15
MANGANESE	MN:	2	MOLYBDENUM	MO:	7
SODIUM	NA:	29900	NICKEL	NI:	22
PHOSPHORUS	P :	106	LEAD (D008)	PB: <	10
ANTIMONY	SB: <	15	SELENIUM (D010)	SE: <	20
TIN	SN:	294	TITANIUM	TI:	9
THALLIUM	TL: <	80	VANADIUM	V : <	3
ZINC	ZN:	64			

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOT (WT
AQUEOUS PHASE (FREE WATER).....	100.0	100
ORGANIC PHASE (FEEDSTOCK).....	0.0	0
BOTTOM SLUDGE (SEMISOLIDS).....	0.0	0
BOTTOM SOLID (SETTLED SOLIDS).....	0.0	0
TOTAL	100.0	100

TOTAL PHASE SPECIFIC GRAVITY: 1.085 VISCOSITY (CENTIPOISE): < 50 C

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PA

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 10/01/9
REVISED: 10/03/9
RUN: 10/08/9

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 2611440-7
LAB #: 3179611440-6
SURVEY #: 1109342

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	87.4	87.4
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	12.6	12.6
VOLATILE ORGANICS BY DIFFERENCE	0.0	0.0
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY

SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID

COMPOUND NAME	COMPOSITION OF: VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)	100.0	0.
CODE: NONE CAS NUMBER:		
TOTAL	100.0	0.

SPECIFIC ORGANIC COMPOSITION

POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: R SEG CODE: REVIEWERS: SA SA LAB: PREQ NEW CASTLE
RELEASED: 09/30/96 ANALYZED: 09/30/96 SUBMITTED: 09/27/96
COMMENTS: LOW BTU <5000/ZN = 64 PPM/NA = 29900 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

*** ACCEPT FOR SHIPMENT

END OF DOCUMEN

81363-R4784 PREQUALIFICATION EVALUATION PAGE 1 OF
ENVIROSYSTEMS COMPLETED: 04/29/9
ENVIROSYSTEMS - FUELS REVISED: 06/24/9
RUN: 06/25/9

ACCEPT FOR PASS-BY ONLY

ANCH/SUBMITTER: 010137 CONTROL #: 2704810-5
ENVIROSYSTEMS LAB #: 3179704810-4
SURVEY #: 1121635

GENERATOR INFORMATION: CUSTOMER NUMBER: - -

OWENS ILLINOIS DE PR
CARR 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: JUAN PEREZ

BRANCH: 010137 - ENVIROSYSTEMS

GENERAL DESCRIPTION: CHECKER DUST
NATURE OF BUSINESS: GLASS RECYCLER S.I.C.: STATUS: LQG
FACILITY ADDRESS: BILLING ADDRESS:
CARR 690 KM 1.1 PO BOX 387
VEGA ALTA, PR PRI 00692 VEGA ALTA, PR PRI 00762
PROCESS DESCRIPTION: STACK CLEANING
GENERATION AMOUNT: 1870 GALLONS QUARTERLY PART#:
P.O. #: DATE SURVEY SIGNED: 04/10/97
CONTACT: JUAN PEREZ TITLE: MECH SUPV PHN: 787-883-5800

```
TTTTTTTT  IIIIIIII  EEEEEEEE  RRRRRRRR                44
TTTTTTTT  IIIIIIII  EEEEEEEE  RRRRRRRR              4444
   TT        II     EE        RR     RR           44  44
   TT        II     EEEEE     RRRRRRRR          44    44
   TT        II     EEEEE     RRRRRR            44444444
   TT        II     EE        RR   RR                44
   TT     IIIIIIII  EEEEEEEE  RR    RR               44
   TT     IIIIIIII  EEEEEEEE  RR    RR               44
OOOOOOO   XX    XX  IIIIII    DDD     IIIIIII  ZZZZZZZZ  EEEEEEEEE RRRRRR
OOOOOOO   XX    XX  IIIIII    DDDDDD  IIIIIII  ZZZZZZZZ  EEEEEEEEE RRRRRRRR
OO   OO    XX  XX    II      DD   DD    II        ZZ    EE        RR    RR
OO   OO     XXXX     II      DD    DD   II       ZZ     EE        RR   RR
OO   OO      XX      II      DD    DD   II     ZZ       EEEEE     RR  RR
OO   OO     XXXX     II      DD    DD   II    ZZ        EEEEE     RRRRR
OO   OO    XX  XX    II      DD   DD    II   ZZ         EE        RR  RR
OO   OO   XX    XX   II      DD  DD     II   ZZ         EE        RR   RR
OOOOOOO   XX    XX  IIIIII    DDDDD   IIIIIII  ZZZZZZZZ  EEEEEEEEE RR    RR
OOOOOOO   XX    XX  IIIIII    DDD     IIIIIII  ZZZZZZZZ  EEEEEEEEE RR     RR
```

****

* DO NOT STORE THIS WASTE WITH ORGANIC WASTES.

*** ACCEPT FOR PASS-BY ONLY

CONTINUED ON NEXT PAG

81363-R4784
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

PROFILE VERIFICATION EVALUATION

COMPLETED: 04/
REVISED: 06/
RUN: 06/

ACCEPT FOR PASS-BY

RANCH/SUBMITTER: 0101
ENVIROSYSTEMS

CONTROL #: 2704810
LAB #: 3179704810
SURVEY #: 1121635

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR PASS
REVIEW DATE: 04/28/19

PART NUMBER:
REVIEWERS: AAD CAP

REVIEW COMMENTS:
****
*
* THIS SAMPLE CONTAINS
* FOR OXIDIZERS OF 1%.
* FILE, OR ANALYTICAL
*
* QUOTE # CHEMICAL WAS
* OXIDIZER SCREEN: POS
****

SAFETY-KLEEN HAS A HEALTH AND SAFETY LIM
THE SURVEY INFORMATION, MSDS ATTACHED TO T
SAMPLE CONTAIN GREATER THAN 1% OXIDIZERS.

LAKE CHARLES FACILITY. 6/24/97

THIS SERVES AS NOTICE
NOTED ABOVE HAS THE AP
WILLING TO ACCEPT THE
IT IS THE RESPONSIBILITY
ANY CHANGES IN THE PRO

FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
STATE PERMITS, CAPABILITIES, CAPACITY; AND IS
IAL AS DESCRIBED IN THE APPROVAL SECTION.
THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF
GENERATING THIS WASTE STREAM.

****
* SPECIAL HANDLING REQU
DO NOT SAMPLE DRUMS
THIS MATERIAL REQUIRES
* THE SALES REPRESENTAT
****
* DO NOT SHIP TO A SAF
* DO NOT USE SAFETY-KL
* DO NOT TRANSFER WASTE
****

: PASS BY ONLY
NOT OPEN DRUMS. DO NOT PROCESS DRUMS.
IAL HANDLING DUE TO UNUSUAL HAZARDS.
ILL ARRANGE TO HAVE SPECIAL LABELS ON DRUMS.
****
KLEEN CORP. FACILITY.
ORP. VEHICLES TO TRANSPORT THE WASTE.
OUGH A SAFETY-KLEEN CORP. LOCATION.
****

*** ACCEPT FOR PASS-BY

ACCEPT FOR PASS-BY ONLY

BRANCH/SUBMITTER: 010137
ENVIROSYSTEMS

CONTROL #: 2704810-5
LAB #: 3179704810-4
SURVEY #: 1121635

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: DK YELLOW SAND
WATER CONTENT	: 11.0 WT%
NON-VOLATILE RESIDUE	: 89.0 WT% DESCRIPTION: SOLID
FLAMMABILITY	: NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 140 F BY SETAFLASH
PH	: EXTRACT BY METER 1.4
NEUTRALIZATION	: 9.00 WT% OR 90.0 G/KG ACID
RADIOACTIVITY	: NONE DETECTED
COMMENTS: H20 COMP: COMP;	

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: <	500 BTU/LB	ASH UPON COMBUSTION	:	44.0 WT
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL FLUORINE	F : <	0.1 WT
TOTAL SULFUR	S : <	0.1 WT%	TOTAL CHLORINE	CL:	16.0 WT

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

ZINC	ZN: <	20	VANADIUM	V : <	4
THALLIUM	TL: <	60	TITANIUM	TI:	7.4
TIN	SN: <	150000	SELENIUM (D010)	SE: <	75
ANTIMONY	SB: <	15	LEAD (D008)	PB:	26
PHOSPHORUS	P : <	80	NICKEL	NI:	26
SODIUM	NA:	420	MOLYBDENUM	MO: <	10
MANGANESE	MN:	12	MAGNESIUM	MG: <	10
POTASSIUM	K : <	30	MERCURY (D009)	HG:	35
IRON	FE:	4200	COPPER	CU:	2.2
CHROMIUM (D007)	CR:	34	COBALT	CO: <	5
CADMIUM (D006)	CD: <	2	CALCIUM	CA:	140
BERYLLIUM	BE: <	1	BARIUM (D005)	BA:	2
ARSENIC (D004)	AS: <	40	ALUMINUM	AL:	41
SILVER (D011)	AG: <	2			

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOT. (WT
AQUEOUS PHASE (FREE WATER)		0.0	0
ORGANIC PHASE (FEEDSTOCK)		0.0	0
BOTTOM SLUDGE (SEMISOLIDS)		0.0	0
BOTTOM SOLID (SETTLED SOLIDS)		100.0	100
TOTAL		100.0	100

TOTAL PHASE SPECIFIC GRAVITY: 1.260 VISCOSITY (CENTIPOISE): > 50000 C

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

ACCEPT FOR PASS-BY ONLY

COMPLETED: 04/29/97
REVISED: 06/24/97
RUN: 06/25/97

CONTROL #: 2704810-5
LAB #: 3179704810-4
SURVEY #: 1121635

BRANCH/SUBMITTER: 010137
ENVIROSYSTEMS

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	11.0	11.0
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	89.0	89.0
VOLATILE ORGANICS BY DIFFERENCE	0.0	0.0
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID

COMPOUND NAME	COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
TRACES OF VOLATILE ORGANICS DETECTED CODE: TR CAS NUMBER:	(<1.0% EACH)	100.0	0.0
TOTAL		100.0	0.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: PREQ NEW CASTLE
RELEASED: 04/29/97 ANALYZED: 04/28/97 SUBMITTED: 04/21/97
COMMENTS: SPECIFIC GRAVITY REPORTED AS BULK DENSITY

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

R E V I S I O N N O T E S ** (06/24/97) **

DISPOSITION	FROM:PT	
	TO:T4	
REVIEWERS	FROM:AAD CAP	
	TO:AAD	CAP
STD COMMENTS	FROM:OXIDZ	
	TO:OXIDZ TOXID	

MANUAL COMMENT UPDATED FROM
OXIDIZER SCREEN: POSITIVE

R E V I S I O N N O T E S ** (06/24/97) **
MANUAL COMMENT UPDATED FROM
AUTOMATED COMMENTS
AUTOMATED COMMENTS

*** ACCEPT FOR PASS-BY ONLY

END OF DOCUMENT

,81363-R4784
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

PREQUALIFICATION EVALUATION

PAGE 1 OF
COMPLETED: 10/14
REVISED: 10/17
RUN: 10/18

ACCEPT FOR SHIPMENT

safety-kleen

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 2611441-9
LAB #: 3179611441-8
SURVEY #: 1109336

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: ANGEL SANTIAGO

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: TIN OXIDE
NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):
FACILITY ADDRESS: MANIFEST
CARRE 690 KM 1.1
VEGA ALTA, PR PRI 00692
BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692
PROCESS DESCRIPTION: BOTTLE PROCESS
GENERATION AMOUNT: 1500 GALLONS QUARTERLY PART#:
P.O. #: DATE SURVEY SIGNED: 09/20/96
CONTACT: ANGEL SANTIAGO TITLE: SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT

.1363-R4784
:NVIROSYSTEMS
:NVIROSYSTEMS - FUELS

COMPLETED: 10/14/96
REVISED: 10/17/96
RUN: 10/18/96

ACCEPT FOR SHIPMENT

CONTROL #: 2611441-9
LAB #: 3179611441-8
SURVEY #: 1109336

3. .NCH/SUBMITTER: 010133
:NVIROSYSTEMS

:ORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP
REVIEW DATE: 10/14/1996

PART NUMBER: 0087152 WASTE,UNPR SLDS 55-1
REVIEWERS: AAD KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001161 DRUM
RQ HAZARDOUS WASTE, SOLID, N.O.S.
9 NA3077 PG III (D007)(ERG#171)

US EPA WASTE CODES: D007
USA

REVIEW COMMENTS:

****

* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* WASTE APPROVAL HAS BEEN RECEIVED.
*
THE GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR NON-HAZARDOUS WASTE
* APPROVAL CANNOT BE ACCEPTED BECAUSE ONE OR MORE OF THE FOLLOWING WAS
* REPORTED IN THE SAMPLE ANALYSIS:
* * IGNITABILITY (FLASH AT 140F OR BELOW; D001 WASTE CODE); OR
* * CORROSIVITY (HIGH OR LOW PH; D002 WASTE CODE); OR
* * TOXICITY (D004 THROUGH D011 OR D018 THROUGH D043 WASTE CODE); OR
* * VOC (CONTAINS A COMPOUND NORMALLY CONSIDERED A LISTED WASTE OR
* SIGNIFICANT AMOUNT OF HYDROCARBONS; F-LISTED OR D018)
* NOTE: SAMPLES FAILING FOR ONLY TOXICITY CAN BE ACCEPTED FOR NON-HAZARDOUS
* WASTE BY PROVIDING A TCLP FOR THE FAILED CHARACTERISTIC(S).
*
* OK FOR INCINERATION.
*
* THIS WASTE MUST BE SHIPPED IN "X, Y OR Z" DOT RATED CONTAINERS.
*
* RECD MOD FORM 10/17/96, GENERATOR AGREES TO MANIFEST AS D007. KAW

****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS
WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF
ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

CONTINUED ON NEXT P

ACCEPT FOR SHIPMENT

CONTROL #: 2611441-9
BRANCH/SUBMITTER: 010133 LAB #: 3179611441-8
ENVIROSYSTEMS SURVEY #: 1109336

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	LT GRAY CHALKY PASTE
WATER CONTENT	:	33.9 WT%
NON-VOLATILE RESIDUE	:	66.1 WT% DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F BY SETAFLASH
PH	:	EXTRACT BY METER 4.9
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: PH SCREEN BY METER/SG BY BULK DENSITY/H2O ESTD BY DIFF

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	100 BTU/LB	ASH UPON COMBUSTION	:	44.4 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL CHLORINE	CL:	11.8 WT%
TOTAL FLUORINE	F : <	0.1 WT%	TOTAL SULFUR	S : <	0.1 WT%

COMMENTS: TOTAL HALIDES = 118212 PPM BY HPLC

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: <	1	ALUMINUM	AL:	50
ARSENIC (D004)	AS: <	15	BARIUM (D005)	BA: <	1
BERYLLIUM	BE: <	1	CALCIUM	CA:	70
CADMIUM (D006)	CD: <	1	COBALT	CO: <	5
CHROMIUM (D007)	CR:	142	COPPER	CU:	21
IRON	FE:	2770	MERCURY (D009)	HG:	22
POTASSIUM	K : <	50	MAGNESIUM	MG: <	15
MANGANESE	MN:	18	MOLYBDENUM	MO:	18
SODIUM	NA:	415	NICKEL	NI:	84
PHOSPHORUS	P : <	30	LEAD (D008)	PB: <	10
ANTIMONY	SB:	96	SELENIUM (D010)	SE: <	20
TIN	SN: >	150000	TITANIUM	TI:	2.9
THALLIUM	TL: <	80	VANADIUM	V : <	3
ZINC	ZN:	8.7			

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOT (WT
AQUEOUS PHASE	(FREE WATER).....	0.0	0
ORGANIC PHASE	(FEEDSTOCK).....	0.0	0
BOTTOM SLUDGE	(SEMISOLIDS).....	0.0	0
BOTTOM SOLID	(SETTLED SOLIDS).....	100.0	100
TOTAL		100.0	100

TOTAL PHASE SPECIFIC GRAVITY: 1.357 VISCOSITY (CENTIPOISE): > 50000 C

ACCEPT FOR SHIPMENT

CONTROL #: 2611441-9
RANCH/SUBMITTER: 010133 LAB #: 3179611441-8
ENVIROSYSTEMS SURVEY #: 1109336

VOLATILE ORGANIC COMPOSITION OF ORGANIC PHASE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: HEXANE-EXTRACT, CS2-EXTRACT
DETECTION METHODS : ECD, FID, FID

COMPOSITION OF:	VOLATILE ORGANICS (PPM)
COMPOUND NAME	
NO TARGET CHLORINATED SOLVENTS DETECTED(<100 PPM EACH)	100.0
CODE: NOX CAS NUMBER:	
TOTAL	100.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

ADDTNL ANALYTICAL INFO: NO VOLATILE ORGANICS DETECTED

LABORATORY REVIEW: R SEG CODE: REVIEWERS: TLM TLM LAB: PREQ NEW CASTL
RELEASED: 10/02/96 ANALYZED: 10/02/96 SUBMITTED: 09/27/96
COMMENTS: LOW BTU <5000/SOLID VISC >50,000/ZN = 8.7 PPM/SN
>150000 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

R E V I S I O N N O T E S ** (10/17/96) **

DISPOSITION	FROM:	MI
	TO:	A
PART NUM	FROM:	000000000
	TO:	0087152
APP FACILITY	FROM:	000000
	TO:	000650
REVIEWERS	FROM:	AAD
	TO:	AAD KAW
STD COMMENTS	FROM:	QUEST GENCT CHAR
	TO:	GENCT CHAR INC PGIII

MANUAL COMMENT UPDATED FROM
DOES GEN. AGREE TO MANIFEST AS D007 WASTE?

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

*** ACCEPT FOR SHIPMENT END OF DOCUME

81363-R4784
ENVIROSYSTEMS
OWENS ILLINOIS DE PR

PREQUALIFICATION EVALUATION
MANIFEST INFORMATION

REVISED: 10/17/9
RUN: 10/18/9
CONTROL #: 2611441-9
SAMPLE #: 1109336

REQUIRED MANIFEST FORM: PR

SAFETY-KLEEN CORP. PROVIDES THIS MANIFESTING INFORMATION FOR INSTRUCTION PURPOSES ONLY. ALL THE INFORMATION IS BELIEVED TO BE ACCURATE, BUT IS KNOWN TO BE INCOMPLETE. FEDERAL AND STATE REGULATIONS AND THE INSTRUCTIONS ON THE MANIFEST FORM SHOULD BE CONSULTED FOR COMPLETE INFORMATION. IN ADDITION, CERTAIN VARIATIONS MAY BE ALLOWED BY REGULATIONS, BUT NEED TO BE APPROVED BY SAFETY-KLEEN REPRESENTATIVE PRIOR TO SHIPMENT.

UNIFORM HAZARDOUS WASTE MANIFEST	1. GENERATORS US EPA NO. PRD090490285	DOCUMENT NO.	2.PAGE 1	UNDERLINED ARE ARE REQUIRE

3. GENERATOR NAME AND MAILING ADDRESS

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
SABANA THORP/PO BOX 387
VEGA ALTA PR 00692-038

4. GENERATOR PHONE 809 725 5800

A. STATE MANIFEST DOCUMENT

B. STATE GENERATOR ID

5. TRANSPORTER 1 CO NAME	6. US EPA ID NO	C. ST TRANS ID
SAFETY-KLEEN CORP.	ILD984908202	D. TRANSPORTER PHONE
7. TRANSPORTER 2 CO NAME	8. US EPA ID NO	E. ST TRANS ID
		F. TRANSPORTER PHONE

9. FACILITY NAME AND SITE ADDRESS 10. US EPA ID NUMBER

SAFETY-KLEEN CORP.
KM51 HWY #2 PRD090399718
MANATÍ, PR 00674

G. FACILITY STATE

H. FACILITY PHONE
809 854 1090

11. US DOT DESCRIPTION	CONTAINER	I. WASTE NO
A. HM. RQ HAZARDOUS WASTE, SOLID, N.O.S. 9 NA3077 PG III (D007)(ERG#171)		N

J. ADDITIONAL DESCRIPTION FOR THE MATERIALS LISTED ABOVE

IA) D007

K. HANDLING COD

15. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

EMERGENCY RESP#800-468-1760(24 HR). IF UNDELIVERABLE, RETURN TO GENERATOR

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674

EPA ID: PRD090399718

UNDER MANIFEST NUMBER LINE NUMBER
THE GENERATOR NOTED BELOW IS SHIPPING TO YOU A RESTRICTED WASTE UNDER FEDERAL AND STATE LAND DISPOSAL RESTRICTION REGULATIONS.
IN ACCORDANCE WITH THESE REGULATIONS, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED AND THE EPA WASTE CODES AND APPROPRIATE TREATMENT STANDARDS ARE AS FOLLOWS:

HAZARDOUS WASTE CODES: D007

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD CONCENTRATION OR TECHNOLOGY CODE
D007	CHROMIUM (CR)	5.0 MG/L TCLP

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE SOLVENT RECOVERY OR USE AS FUEL PRIOR TO LAND DISPOSAL.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HWSA-AUTHORIZED STATES.
****AND MEET UNIVERSAL TREATMENT STANDARDS
*****NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

GENERATOR NAME: OWENS ILLINOIS DE PR EPA ID: PRD090490285

GENERATOR SIGNATURE (OPTIONAL): _____

NAME & TITLE (OPTIONAL): _____

SAFETY-KLEEN SAMPLE NUMBER: 1109336 CONTROL NUMBER: 2611441-

01363-R4784
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

PRE-QUALIFICATION EVALUATION

COMPLETED: 05/08/9
REVISED: 05/23/9
RUN: 05/24/9

ACCEPT FOR SHIPMENT

safety-kleen

CONTROL #: 2704808-2
LAB #: 3179704808-1
SURVEY #: 1121636

BRANCH/SUBMITTER: 010137
ENVIROSYSTEMS

GENERATOR INFORMATION: CUSTOMER NUMBER: - -

OWENS ILLINOIS DE PR
CARR 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: JUAN PEREZ

BRANCH: 010137 - ENVIROSYSTEMS

GENERAL DESCRIPTION: MELITA

NATURE OF BUSINESS: GLASS RECYCLER S.I.C.: STATUS: LQG

FACILITY ADDRESS:	BILLING ADDRESS:
CARR 690 KM 1.1	PO BOX 387
VEGA ALTA, PR PRI 00692	VEGA ALTA, PR PRI 00762

PROCESS DESCRIPTION: GIVE COLOR TO GLASS

GENERATION AMOUNT: 165 GALLONS YEARLY PART#:

P.O. #: DATE SURVEY SIGNED: 04/10/97

CONTACT: JUAN PEREZ TITLE: MECHANICS SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT CONTAINER ON VEHICLE

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 05/08/9
REVISED: 05/23/9
RUN: 05/24/9

ACCEPT FOR SHIPMENT

CONTROL #: 2704808-2
ANCH/SUBMITTER: 010137 LAB #: 3179704808-1
ENVIROSYSTEMS SURVEY #: 1121636

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087152 WASTE,UNPR SLDS 55-1
REVIEW DATE: 04/28/1997 REVIEWERS: CAP KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001048 DRUM RQ HAZARDOUS WASTE, SOLID, N.O.S.
9 NA3077 PG III (D006)(ERG#171)

US EPA WASTE CODES: D004 D006 D010
USA

REVIEW COMMENTS:
****
*
* THIS WASTE MUST BE SHIPPED IN "X, Y OR Z" DOT RATED CONTAINERS.
*
* OK FOR INCINERATION. WASTE SHIPPED IN DRUMS FROM THE CUSTOMERS SITE NEED TC
BE EQUIPPED WITH A BUNG ON THE TOP LID PRIOR TO SHIPMENT. DRUMS RECEIVED
* FROM THE CUSTOMER LACKING BUNGS WILL BE RETURNED TO THE CUSTOMER BY THE SK
* TSDF.
*
* RECD MOD FORM 5/20/97,GENERATOR AGREES WITH DOT/EPA CODES. KAW
* GENERAL COMMENTS:NO VOLATILE OG COMPOUNDS DETECTED BY LOW LEVEL VOC ANALYSI
* S
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

ACCEPT FOR SHIPMENT

ANCH/SUBMITTER: 010137
ENVIROSYSTEMS

CONTROL #: 2704808-2
LAB #: 3179704808-1
SURVEY #: 1121636

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DK GRAY POWDER
WATER CONTENT	:	3.8 WT%
NON-VOLATILE RESIDUE	:	96.0 WT% DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F BY SETAFLASH
PH	:	EXTRACT BY METER 2.4
NEUTRALIZATION	:	0.90 WT% OR 9.0 G/KG ACID
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: H20 COMP: COMP;

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	2700 BTU/LB	ASH UPON COMBUSTION	:	82.0 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL FLUORINE	F : <	0.1 WT%
TOTAL SULFUR	S :	0.8 WT%	TOTAL CHLORINE	CL: <	0.1 WT%

COMMENTS: FLASH @ 200: N;CHLORIDE: <0.10;

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

ZINC	ZN:	110	VANADIUM	V :	91
THALLIUM	TL: <	60	TITANIUM	TI:	1000
TIN	SN:	170	SELENIUM (D010)	SE:	750
ANTIMONY	SB:	140	LEAD (D008)	PB:	86
PHOSPHORUS	P : <	80	NICKEL	NI: <	20
SODIUM	NA:	470	MOLYBDENUM	MO: <	10
MANGANESE	MN:	50	MAGNESIUM	MG:	48
POTASSIUM	K :	1400	MERCURY (D009)	HG: <	20
IRON	FE:	250000	COPPER	CU:	47
CHROMIUM (D007)	CR: <	5	COBALT	CO:	72
CADMIUM (D006)	CD:	69	CALCIUM	CA:	1400
BERYLLIUM	BE: <	.1	BARIUM (D005)	BA:	180
ARSENIC (D004)	AS:	2000	ALUMINUM	AL:	3600
SILVER (D011)	AG:	2.8			

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOTA (WT%
AQUEOUS PHASE (FREE WATER)	.....	0.0	0.
ORGANIC PHASE (FEEDSTOCK)	.....	0.0	0.
BOTTOM SLUDGE (SEMISOLIDS)	.....	0.0	0.
BOTTOM SOLID (SETTLED SOLIDS)	.....	100.0	100.
TOTAL		100.0	100.

TOTAL PHASE SPECIFIC GRAVITY: 1.330 VISCOSITY (CENTIPOISE): > 50000 CP

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAG

ENVIROSYSTEMS COMPLETED: 05/08/97
ENVIROSYSTEMS - FUELS REVISED: 05/23/97
RUN: 05/24/97

ACCEPT FOR SHIPMENT

CONTROL #: 2704808-2
BRANCH/SUBMITTER: 010137 LAB #: 3179704808-1
ENVIROSYSTEMS SURVEY #: 1121636

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	3.8	3.8
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	96.0	96.0
VOLATILE ORGANICS BY DIFFERENCE	0.2	0.2
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID

COMPOUND NAME (COMPOSITION OF:)	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
NO VOLATILE ORGANICS DETECTED (<0.1% EACH) CODE: NONE CAS NUMBER:	100.0	0.1
TOTAL	100.0	0.1

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: PREQ NEW CASTLE
RELEASED: 05/08/97 ANALYZED: 05/07/97 SUBMITTED: 04/16/97
COMMENTS: SPECIFIC GRAVITY REPORTED AS BULK DENSITY

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

R E V I S I O N N O T E S ** (05/23/97) **
DISPOSITION FROM:MI
TO:A
APP FACILITY FROM: 000000
TO:000650
REVIEWERS FROM:CAP
TO:CAP KAW
STD COMMENTS FROM:QUEST
TO:PGIII INC
MANUAL COMMENT UPDATED FROM
DOES GENERATOR AGREE TO MANIFEST AS HAZARDOUS?
GENERAL COMMENTS:NO VOLATILE OG COMPOUNDS DETECTED BY LOW LEVEL VOC ANALYSI

R E V I S I O N N O T E S ** (05/23/97) **
MANUAL COMMENT UPDATED FROM
AUTOMATED COMMENTS
AUTOMATED COMMENTS
*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

ACCEPT FOR SHIPMENT

CONTROL #: 2704808-2
ANCH/SUBMITTER: 010137 LAB #: 3179704808-1
ENVIROSYSTEMS SURVEY #: 1121636

S

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

81363-R4784
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

ACCEPT FOR PASS-BY ONLY

BRANCH/SUBMITTER: 010137
ENVIROSYSTEMS

QUALIFICATION EVALUATION

safety-kleen

COMPLETED: 04/24/
REVISED: 05/29/
RUN: 05/30/

CONTROL #: 2704805-5
LAB #: 3179704805-4
SURVEY #: 1121648

GENERATOR INFORMATION: CUSTOMER NUMBER: - -

OWENS ILLINOIS DE PR
CARR 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: JUAN PEREZ

BRANCH: 010137 - ENVIROSYSTEMS

GENERAL DESCRIPTION: CAUSTIC SODA 50

NATURE OF BUSINESS: GLASS RECYCLER S.I.C.: STATUS: LQG

FACILITY ADDRESS:
CARR 690 KM 1.1
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00762

PROCESS DESCRIPTION: REJECTED

GENERATION AMOUNT: 220 GALLONS ONE TIME ONLY PART#:

P.O. #: DATE SURVEY SIGNED: 04/10/97

CONTACT: JUAN PEREZ TITLE: MECHANICS SUPV PHN: 787-883-5800

```
TTTTTTTT  IIIIIIII  EEEEEEEE  RRRRRRRR          44
TTTTTTTT  IIIIIIII  EEEEEEEE  RRRRRRRR        4444
   TT        II     EE        RR    RR     44  44
   TT        II     EEEEE     RRRRRRRR   44    44
   TT        II     EEEEE     RRRRRR     44444444
   TT        II     EE        RR   RR        44
   TT     IIIIIIII  EEEEEEEE  RR    RR       44
   TT     IIIIIIII  EEEEEEEE  RR    RR       44
```

*** ACCEPT FOR PASS-BY ONLY

CONTINUED ON NEXT Pa

ACCEPT FOR PASS-BY ONLY

ANCH/SUBMITTER: 010137
ENVIROSYSTEMS

CONTROL #: 2704805-5
LAB #: 3179704805-4
SURVEY #: 1121648

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR PASS PART NUMBER:
REVIEW DATE: 04/24/1997 REVIEWERS: CAP

REVIEW COMMENTS:

****
*
* THE CAUSTIC CONTENT IS TOO HIGH. CAUSTICS, OTHER THAN MOST AMINES, ARE
* LIMITED TO 6% BY WEIGHT. DENTON AND LINDEN RC ARE ALLOWED TO ACCEPT
* CAUSTICS UP TO 20% BY WEIGHT.
*
* QUOTE # ENSCO - DALTON. 5/29/97
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

****
* SPECIAL HANDLING REQUIRED: PASS BY ONLY *
* DO NOT SAMPLE DRUMS. DO NOT OPEN DRUMS. DO NOT PROCESS DRUMS. *
* THIS MATERIAL REQUIRES SPECIAL HANDLING DUE TO UNUSUAL HAZARDS. *
* THE SALES REPRESENTATIVE WILL ARRANGE TO HAVE SPECIAL LABELS ON DRUMS. *
****
* DO NOT SHIP TO A SAFETY-KLEEN CORP. FACILITY. *
* DO NOT USE SAFETY-KLEEN CORP. VEHICLES TO TRANSPORT THE WASTE. *
* DO NOT TRANSFER WASTE THROUGH A SAFETY-KLEEN CORP. LOCATION. *
****

ACCEPT FOR PASS-BY ONLY

RANCH/SUBMITTER: C10137
ENVIROSYSTEMS

CONTROL #: 2704805-5
LAB #: 3179704805-4
SURVEY #: 1121648

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	COLORLESS
WATER CONTENT	:	61.0 WT%
NON-VOLATILE RESIDUE	:	39.0 WT% DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F BY SETAFLASH
PH	:	DIRECT BY METER 14.0
NEUTRALIZATION	:	48.20 WT% OR 482.0 G/KG BASE
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: H20 COMP: COMP;

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: <	500 BTU/LB	ASH UPON COMBUSTION	:	66.0 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL FLUORINE	F : <	0.1 WT%
TOTAL SULFUR	S : <	0.1 WT%	TOTAL CHLORINE	CL: <	0.1 WT%

COMMENTS: CHLORIDE: <0.10;

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

ZINC	ZN: <	20	VANADIUM	V : <	4
THALLIUM	TL: <	60	TITANIUM	TI: <	2
TIN	SN: <	35	SELENIUM (D010)	SE: <	75
ANTIMONY	SB: <	15	LEAD (D008)	PB: <	15
PHOSPHORUS	P : <	80	NICKEL	NI: <	20
SODIUM	NA:	260000	MOLYBDENUM	MO: <	10
MANGANESE	MN: <	1	MAGNESIUM	MG: <	10
POTASSIUM	K :	140	MERCURY (D009)	HG: <	20
IRON	FE: <	3	COPPER	CU: <	1
CHROMIUM (D007)	CR: <	5	COBALT	CO: <	5
CADMIUM (D006)	CD: <	2	CALCIUM	CA:	35
BERYLLIUM	BE: <	1	BARIUM (D005)	BA: <	1
ARSENIC (D004)	AS: <	40	ALUMINUM	AL: <	15
SILVER (D011)	AG: <	2			

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOTAL (WT%
AQUEOUS PHASE (FREE WATER)	.....	0.0	0.
ORGANIC PHASE (FEEDSTOCK)	.....	100.0	100.
BOTTOM SLUDGE (SEMISOLIDS)	.....	0.0	0.
BOTTOM SOLID (SETTLED SOLIDS)	.....	0.0	0.
TOTAL		100.0	100.

TOTAL PHASE SPECIFIC GRAVITY: 1.530 VISCOSITY (CENTIPOISE): < 50 CP

ACCEPT FOR PASS-BY ONLY

CONTROL #: 2704805-5
LANCH/SUBMITTER: 010137 LAB #: 3179704805-4
ENVIROSYSTEMS SURVEY #: 1121648

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	61.0	61.0
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	39.0	39.0
VOLATILE ORGANICS BY DIFFERENCE	0.0	0.0
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID

COMPOUND NAME (COMPOSITION OF:)	VOLATILE ORGANICS (WT%)	TOTAL SAMPL (WT%
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)	100.0	0.
CODE: NONE CAS NUMBER:		
TOTAL	100.0	0.

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: PREQ NEW CASTLE
RELEASED: 04/24/97 ANALYZED: 04/23/97 SUBMITTED: 04/16/97

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

R E V I S I O N N O T E S ** (05/29/97) **
DISPOSITION FROM:PT
TO:T4
MANUAL COMMENT ADDED
AUTOMATED COMMENTS
AUTOMATED COMMENTS

R E V I S I O N N O T E S ** (05/29/97) **
MANUAL COMMENT UPDATED FROM
AUTOMATED COMMENTS
AUTOMATED COMMENTS

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 1 OF 4
ENVIROSYSTEMS COMPLETED: 05/08/97
ENVIROSYSTEMS - FUELS REVISED: 05/23/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

RANCH/SUBMITTER: 010137
NVIROSYSTEMS

CONTROL #: 2704808-2
LAB #: 3179704808-1
SURVEY #: 1121636

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA, PR 006920387 PRI

ATTN: JUAN PEREZ

SALESPERSON: 010137 - LUIS CLASSEN

GENERAL DESCRIPTION: MELITA
NATURE OF BUSINESS: GLASS RECYCLER S.I.C.: STATUS: LQG
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS:
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA, PR PRI 006920387

BILLING ADDRESS:

PROCESS DESCRIPTION: GIVE COLOR TO GLASS
GENERATION AMOUNT: 165 GALLONS YEARLY PART#:
P.O. #: DATE SURVEY SIGNED: 04/10/97
CONTACT: JUAN PEREZ TITLE: MECHANICS SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 2 OF 4
ENVIROSYSTEMS COMPLETED: 05/08/97
ENVIROSYSTEMS - FUELS REVISED: 05/23/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

RANCH/SUBMITTER: 010137 CONTROL #: 2704808-2
NVIROSYSTEMS LAB #: 3179704808-1
SURVEY #: 1121636

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087152 WASTE,UNPR SLDS 55-1
REVIEW DATE: 04/28/1997 REVIEWERS: CAP KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 7878541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001048 DRUM RQ HAZARDOUS WASTE, SOLID, N.O.S.
9 NA3077 PG III (D006)(ERG#171)

US EPA WASTE CODES: D004 D006 D010
USA

REVIEW COMMENTS:

****
*
* THIS WASTE MUST BE SHIPPED IN "X, Y OR Z" DOT RATED CONTAINERS.
*
* OK FOR INCINERATION. WASTE SHIPPED IN DRUMS FROM THE CUSTOMERS SITE NEED TO
* BE EQUIPPED WITH A BUNG ON THE TOP LID PRIOR TO SHIPMENT. DRUMS RECEIVED
* FROM THE CUSTOMER LACKING BUNGS WILL BE RETURNED TO THE CUSTOMER BY THE SK
* TSDF.
*
* RECD MOD FORM 5/20/97,GENERATOR AGREES WITH DOT/EPA CODES. KAW
* GENERAL COMMENTS:NO VOLATILE OG COMPOUNDS DETECTED BY LOW LEVEL VOC ANALYSI
* S
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS
WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF
ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 3 OF 4
ENVIROSYSTEMS COMPLETED: 05/08/97
ENVIROSYSTEMS - FUELS REVISED: 05/23/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010137 CONTROL #: 2704808-2
ENVIROSYSTEMS LAB #: 3179704808-1
SURVEY #: 1121636

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DK GRAY POWDER
WATER CONTENT	:	3.8 WT%
NON-VOLATILE RESIDUE	:	96.0 WT% DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F BY SETAFLASH
PH	:	EXTRACT BY METER 2.4
NEUTRALIZATION	:	0.90 WT% OR 9.0 G/KG ACID
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: H2O COMP: COMP;

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	2700	BTU/LB	ASH UPON COMBUSTION	:	82.0	WT%
TOTAL BROMINE	BR: <	0.1	WT%	TOTAL FLUORINE	F : <	0.1	WT%
TOTAL SULFUR	S :	0.8	WT%	TOTAL CHLORINE	CL: <	0.1	WT%

COMMENTS: FLASH @ 200: N;CHLORIDE: <0.10;

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

ZINC	ZN:	110		VANADIUM	V :	91	
THALLIUM	TL: <	60		TITANIUM	TI:	1000	
TIN	SN:	170		SELENIUM (D010)	SE:	750	
ANTIMONY	SB:	140		LEAD (D008)	PB:	86	
PHOSPHORUS	P : <	80		NICKEL	NI: <	20	
SODIUM	NA:	470		MOLYBDENUM	MO: <	10	
MANGANESE	MN:	50		MAGNESIUM	MG:	48	
POTASSIUM	K :	1400		MERCURY (D009)	HG: <	20	
IRON	FE:	250000		COPPER	CU:	47	
CHROMIUM (D007)	CR: <	5		COBALT	CO:	72	
CADMIUM (D006)	CD:	69		CALCIUM	CA:	1400	
BERYLLIUM	BE: <	1		BARIUM (D005)	BA:	180	
ARSENIC (D004)	AS:	2000		ALUMINUM	AL:	3600	
SILVER (D011)	AG:	2.8					

GENERAL COMPOSITION: COMPOSITION BY:

	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER).....	0.0	0.0
ORGANIC PHASE (FEEDSTOCK).....	0.0	0.0
BOTTOM SLUDGE (SEMISOLIDS).....	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS).....	100.0	100.0
TOTAL	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: 1.330 VISCOSITY (CENTIPOISE): > 50000 CPS

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 4 OF 4
ENVIROSYSTEMS COMPLETED: 05/08/97
ENVIROSYSTEMS - FUELS REVISED: 05/23/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

CONTROL #: 2704808-2
BRANCH/SUBMITTER: 010137 LAB #: 3179704808-1
ENVIROSYSTEMS SURVEY #: 1121636

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	3.8	3.8
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	96.0	96.0
VOLATILE ORGANICS BY DIFFERENCE	0.2	0.2
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID

COMPOUND NAME / COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)	100.0	0.2
CODE: NONE CAS NUMBER:		
TOTAL	100.0	0.2

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: PREQ NEW CASTLE
RELEASED: 05/08/97 ANALYZED: 05/07/97 SUBMITTED: 04/16/97
COMMENTS: SPECIFIC GRAVITY REPORTED AS BULK DENSITY

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS REQUIRED.

*** ACCEPT FOR SHIPMENT END OF DOCUMENT

81363-R4505

SAFETY-KLEEN CORP. PAGE 1 OF 1

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE

TO: SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674

EPA ID: PRD090399718

UNDER MANIFEST NUMBER LINE NUMBER
THE GENERATOR NOTED BELOW IS SHIPPING TO YOU A RESTRICTED WASTE UNDER FEDERAL AND STATE LAND DISPOSAL RESTRICTION REGULATIONS.
IN ACCORDANCE WITH THESE REGULATIONS, THE GENERATOR HEREBY PROVIDES NOTICE THAT THE WASTE IS RESTRICTED AND THE EPA WASTE CODES AND APPROPRIATE TREATMENT STANDARDS ARE AS FOLLOWS:

HAZARDOUS WASTE CODES: D004 D006 D010

TREATABILITY GROUP: NONWASTEWATERS

EPA WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY OR REGULATED HAZARDOUS CONSTITUENT	TREATMENT STANDARD CONCENTRATION OR TECHNOLOGY CODE
D004	ARSENIC (AS)	5.0 MG/L EP OR TCLP
D006	CADMIUM (CD)	1.0 MG/L TCLP
D010	SELENIUM (SE)	5.7 MG/L TCLP

NOTES: * THESE TREATMENT STANDARDS DO NOT PRECLUDE SOLVENT RECOVERY OR USE AS FUEL PRIOR TO LAND DISPOSAL.
** NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 12-19-94.
*** TREATMENT STANDARDS APPLICABLE IN CERTAIN HSWA-AUTHORIZED STATES.
****AND MEET UNIVERSAL TREATMENT STANDARDS
*****NEW TREATMENT STANDARDS UNDER FEDERAL RULES EFFECTIVE 7-8-96.

GENERATOR NAME: OWENS ILLINOIS DE PR EPA ID: PRD090490285

GENERATOR SIGNATURE (OPTIONAL): _____

NAME & TITLE (OPTIONAL): _____

SAFETY-KLEEN SAMPLE NUMBER: 1121636 CONTROL NUMBER: 2704808-2

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION PAGE 1 OF 4
ENVIROSYSTEMS COMPLETED: 04/22/97
ENVIROSYSTEMS - FUELS REVISED: 07/02/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

RANCH/SUBMITTER: 010137 CONTROL #: 2704800-4
NVIROSYSTEMS LAB #: 3179704800-3
SURVEY #: 1121647

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA, PR 006920387 PRI

ATTN: JUAN PEREZ

SALESPERSON: 010137 - LUIS CLASSEN

GENERAL DESCRIPTION: BACK HOUSE FILTERS
NATURE OF BUSINESS: GLASS RECYCLER S.I.C.: STATUS: LQG
FEDERAL EPA ID: PRD090490285 STATE ID(S):
FACILITY ADDRESS: BILLING ADDRESS:
CARRE 690 KM 1.1/BARRIO
HERMAN ROSARIO BOX 387
VEGA ALTA, PR PRI 006920387
PROCESS DESCRIPTION: REPLACEMENT
GENERATION AMOUNT: 550 GALLONS ONE TIME ONLY PART#:
P.O. #: DATE SURVEY SIGNED: 04/10/97
CONTACT: JUAN PEREZ TITLE: MECHANICS SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT .

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION
ENVIROSYSTEMS COMPLETED: 04/22/97
ENVIROSYSTEMS - FUELS REVISED: 07/02/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

ANCH/SUBMITTER: 010137 CONTROL #: 2704800-4
NVIROSYSTEMS LAB #: 3179704800-3
SURVEY #: 1121647

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0087198 WASTE,SPNHAZSLD 55-1
REVIEW DATE: 04/22/1997 REVIEWERS: AAD

APPROVED FACILITIES:

SAFETY-KLEEN CORP.
581 MILLIKEN DR SE
HEBRON, OH 43025
FED EPA#: OHD980587364
STATE EPA#:
TELEPHONE: 6149293532
STATE AUTH:

SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
PRD090399718

7878541090

SAFETY-KLEEN CORP.
3700 LAGRANGE ROAD
SMITHFIELD, KY 40068
FED EPA#: KYD053348108
STATE EPA#:
TELEPHONE: 5028452453
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0005499 DRUM OR BULK FILTERS
(NOT USDOT OR USEPA HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:

****

* PROPER SHIPPING DESCRIPTION WAS BASED ON THIS SINGLE ANALYSIS. GENERATOR
* MUST CERTIFY THAT SHIPMENT IS NOT HAZARDOUS. PER COMPANY POLICY, FRS
* CUSTOMERS MUST COMPLETE GENERATOR CERTIFICATION WITH EACH SHIPMENT
* AND BRANCH WILL FILE IN CUSTOMER RECORDS.
*
* OK FOR THERMAL DESTRUCTION AS USEPA NON-HAZARDOUS SOLIDS. WASTE WILL BE
SHIPPED TO A WASTE-TO-ENERGY INCINERATOR FOR MUNICIPAL TRASH. WASTE SHIPPED
IN DRUMS FROM THE CUSTOMERS SITE NEED TO BE EQUIPPED WITH A BUNG ON THE TOP
* LID PRIOR TO SHIPMENT. DRUMS RECEIVED FROM THE CUSTOMER LACKING BUNGS WILL
* BE RETURNED TO THE CUSTOMER BY THE SK TSDF.
*
* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* WASTE APPROVAL HAS BEEN RECEIVED.
*
* NONHAZ SOLIDS THROUGH HEBRON AND NEW CATLE ONLY DUE TO HIGH SULFUR. 7/2/97

****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS
WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.
IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF
ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION
ENVIROSYSTEMS COMPLETED: 04/22/97
ENVIROSYSTEMS - FUELS REVISED: 07/02/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010137 CONTROL #: 2704800-4
ENVIROSYSTEMS LAB #: 3179704800-3
SURVEY #: 1121647

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	WHITE RAGS	
WATER CONTENT	:	0.5 WT%	
NON-VOLATILE RESIDUE	:	100.0 WT%	DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F	BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F	BY SETAFLASH
PH	:	EXTRACT BY METER	5.9
RADIOACTIVITY	:	NONE DETECTED	
COMMENTS: H2O COMP: COMP;			

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	10800 BTU/LB		ASH UPON COMBUSTION	:	<	1.0 WT%
TOTAL BROMINE	BR:	< 0.1 WT%		TOTAL FLUORINE	F :	<	0.1 WT%
TOTAL SULFUR	S :	1.3 WT%		TOTAL CHLORINE	CL:		0.6 WT%

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

ZINC	ZN:	< 20		VANADIUM	V :	< 4	
THALLIUM	TL:	< 60		TITANIUM	TI:	1200	
TIN	SN:	23000		SELENIUM (D010)	SE:	< 75	
ANTIMONY	SB:	170		LEAD (D008)	PB:	< 15	
PHOSPHORUS	P :	< 80		NICKEL	NI:	< 20	
SODIUM	NA:	81		MOLYBDENUM	MO:	< 10	
MANGANESE	MN:	2.8		MAGNESIUM	MG:	18	
POTASSIUM	K :	< 30		MERCURY (D009)	HG:	< 20	
IRON	FE:	200		COPPER	CU:	1.9	
CHROMIUM (D007)	CR:	< 5		COBALT	CO:	11	
CADMIUM (D006)	CD:	< 2		CALCIUM	CA:	80	
BERYLLIUM	BE:	< 1		BARIUM (D005)	BA:	2.7	
ARSENIC (D004)	AS:	< 40		ALUMINUM	AL:	33	
SILVER (D011)	AG:	< 2					

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)		0.0	0.0
ORGANIC PHASE (FEEDSTOCK)		0.0	0.0
BOTTOM SLUDGE (SEMISOLIDS)		0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)		100.0	100.0
TOTAL		100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: .420 VISCOSITY (CENTIPOISE): > 50000 CPS

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 04/22/97
REVISED: 07/02/97
RUN: 11/24/97

ACCEPT FOR SHIPMENT

CONTROL #: 2704800-4
LAB #: 3179704800-3
SURVEY #: 1121647

L INCH/SUBMITTER: 010137
ENVIROSYSTEMS

SPECIFIC COMPOSITION OF TOTAL SAMPLE	COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT		0.5	0.5
NON-VOLATILE RESIDUE	DESCRIPTION: SOLID	100.0	100.0
VOLATILE ORGANICS BY DIFFERENCE		0.0	0.0
TOTAL		100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID

COMPOUND NAME	COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)		100.0	0.0
CODE: NONE CAS NUMBER:			
TOTAL		100.0	0.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

ADDTNL ANALYTICAL INFO: HVOC(MG/KG):FTF <1.0; MECL <1.0; 111 <1.0; CCL4 <1.0;
ADDTNL ANALYTICAL INFO: TCE <1.0; 112 <1.0; PERC <1.0; PDCB <1.0; ODCB <1.0;

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: PREQ NEW CASTLE
RELEASED: 04/22/97 ANALYZED: 04/22/97 SUBMITTED: 04/16/97
COMMENTS: SPECIFIC GRAVITY REPORTED AS BULK DENSITY

HE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF
JALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN
ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

*** ACCEPT FOR SHIPMENT

END OF DOCUMENT

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 06/17/96
REVISED:
RUN: 11/24/97

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 2606774-9
LAB #: 3179606774-8
SURVEY #: 1035474

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: JUAN PEREZ

SALESPERSON: 010137 - LUIS CLASSEN

GENERAL DESCRIPTION: FUEL #6
NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):
FACILITY ADDRESS: MANIFEST BILLING ADDRESS:
CARRE 690 KM 1.1 PO BOX 387
VEGA ALTA, PR PRI 00692 VEGA ALTA, PR PRI 00692
PROCESS DESCRIPTION: BOILER
GENERATION AMOUNT: 165 GALLONS QUARTERLY PART#:
P.O. #: DATE SURVEY SIGNED: 05/13/96
CONTACT: JUAN PEREZ TITLE: SUPV PHN: 787-883-5800

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION
ENVIROSYSTEMS COMPLETED: 06/17/96
ENVIROSYSTEMS - FUELS REVISED:
RUN: 11/24/97

ACCEPT FOR SHIPMENT

CONTROL #: 2606774-9
LAB #: 3179606774-8
SURVEY #: 1035474

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082112 WASTE,NON-PUMP -55
REVIEW DATE: 06/17/1996 REVIEWERS: KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 7878541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0005542 DRUM OR BULK FUEL OIL
(NOT USDOT HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:

****

*
* OK FOR NONPUMPABLE FUEL. WASTE SHIPPED IN DRUMS FROM THE CUSTOMERS SITE
* NEED TO BE EQUIPPED WITH A BUNG ON THE TOP LID PRIOR TO SHIPMENT. DRUMS
* RECEIVED FROM THE CUSTOMER LACKING BUNGS WILLBE RETURNED TO THE CUSTOMER BY
* THE SK TSDF.
*
* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* WASTE APPROVAL HAS BEEN RECEIVED.

****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION. IT IS THE RESPONSIBILITY OF THE GENERATOR TO NOTIFY SAFETY-KLEEN CORP. OF ANY CHANGES IN THE PROCESS GENERATING THIS WASTE STREAM.

CONTINUED ON NEXT PAGE

BRANCH/SUBMITTER: 010133 CONTROL #: 2606774-9
ENVIROSYSTEMS LAB #: 3179606774-8
SURVEY #: 1035474

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	DK BROWN
WATER CONTENT	:	3.7 WT%
NON-VOLATILE RESIDUE	:	90.8 WT% DESCRIPTION: SOLID
FLAMMABILITY	:	NO FLASH AT 73 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 140 F BY SETAFLASH
PH	:	EXTRACT BY METER 9.2
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: PH SCREEN BY METER

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	18700 BTU/LB	ASH UPON COMBUSTION	:		0.6 WT%
TOTAL BROMINE	BR: <	0.1 WT%	TOTAL CHLORINE	CL: <		0.1 WT%
TOTAL FLUORINE	F : <	0.1 WT%	TOTAL SULFUR	S :		1.0 WT%

COMMENTS: TOTAL HALIDES = 549 PPM BY HPLC

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: <	1	ALUMINUM		AL:		220
ARSENIC (D004)	AS: <	15	BARIUM	(D005)	BA:		3
BERYLLIUM	BE: <	1	CALCIUM		CA:		199
CADMIUM (D006)	CD: <	1	COBALT		CO:	<	5
CHROMIUM (D007)	CR: <	2	COPPER		CU:		3
IRON	FE:	43	MERCURY	(D009)	HG:	<	10
POTASSIUM	K : <	50	MAGNESIUM		MG:	<	15
MANGANESE	MN: <	1	MOLYBDENUM		MO:	<	2
SODIUM	NA:	244	NICKEL		NI:		59
PHOSPHORUS	P : <	30	LEAD	(D008)	PB:	<	10
ANTIMONY	SB: <	15	SELENIUM	(D010)	SE:	<	20
TIN	SN: <	10	TITANIUM		TI:		7
THALLIUM	TL: <	80	VANADIUM		V :		92
ZINC	ZN:	61					

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)	0.0	0.0
ORGANIC PHASE (FEEDSTOCK)	100.0	100.0
BOTTOM SLUDGE (SEMISOLIDS)	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)	0.0	0.0
TOTAL	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: .942 VISCOSITY (CENTIPOISE): 26750 CPS

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 06/17/96
REVISED:
RUN: 11/24/97

ACCEPT FOR SHIPMENT

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CONTROL #: 2606774-9
LAB #: 3179606774-8
SURVEY #: 1035474

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	3.7	3.7
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	90.8	90.8
VOLATILE ORGANICS BY DIFFERENCE	5.5	5.5
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID

COMPOUND NAME	COMPOSITION OF: VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
HIGH-BOILING HYDROCARBONS (C14-C20) CODE: HHC CAS NUMBER:	58.8	3.2
MEDIUM-BOILING HYDROCARBONS (C9-C13) CODE: MHC CAS NUMBER: 8030-30-6	38.3	2.1
TOTAL OTHERS (<1.0% EACH) CODE: TO CAS NUMBER:	2.9	0.2
TOTAL	100.0	5.5

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: TLM TLM LAB: PREQ NEW CASTLE
RELEASED: 06/14/96 ANALYZED: 06/14/96 SUBMITTED: 06/10/96
COMMENTS: ZN = 61 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

*** ACCEPT FOR SHIPMENT

END OF DOCUMENT

81363-R4505 (REPRINT)
PARTS WASHER SERVICE
FLUID RECOVERY SERVICES

PREQUALIFICATION EVALUATION

COMPLETED: 11/10/97
REVISED: 11/10/97
RUN: 11/24/97

MISSING PREQUALIFICATION INFO

BRANCH/SUBMITTER: 010135
ENVIROSYSTEMS

CONTROL #: 1726649-8
LAB #: 6069726649-9
SURVEY #: 1121744

GENERATOR INFORMATION: CUSTOMER NUMBER: - -

ABBOTT HEALTH PRODUCTS INC
ST RD #2 KM 58.0
BARCELONETA, PR 00617 PRI

ATTN: JEANETTE ESCABI

BRANCH: 010135 - ENVIROSYSTEMS

GENERAL DESCRIPTION: WASTE ACETONE SOLUTION
NATURE OF BUSINESS: CHEMICAL PLANT S.I.C.: STATUS: LQG
FACILITY ADDRESS:
ST RD #2 KM 58.0
BARCELONETA, PR PRI 00617
BILLING ADDRESS:
PO BOX 278
BARCELONETA, PR PRI 00617
PROCESS DESCRIPTION: CHEMICAL PROCESS
GENERATION AMOUNT: 1000 GALLONS YEARLY PART#:
P.O. #: NO CHARGE DATE SURVEY SIGNED: 11/03/97
CONTACT: JEANETTE ESCABI TITLE: ENVIRONMENTAL MANAGE PHN: 787-846-3500
SURVEY COMMENTS:
(RUSH SAMPLE)

****
****
** THIS MATERIAL CANNOT BE SHIPPED TO A SAFETY-KLEEN CORP. FACILITY UNTIL **
** PREQUALIFICATION IS ACCEPTED. **
****
****

*** MISSING PREQUALIFICATION INFO

CONTINUED ON NEXT PAGE

MISSING PREQUALIFICATION INFO

BRANCH/SUBMITTER: 010135
VIROSYSTEMS

CONTROL #: 1726649-8
LAB #: 6069726649-9
SURVEY #: 1121744

CORPORATE REVIEW:
DISPOSITION: MISSING PREQUAL PART NUMBER: 0087174 WASTE,WATER 55-1
REVIEW DATE: 11/10/1997 REVIEWERS: AAD

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 7878541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001224 DRUM OR BULK RQ HAZARDOUS WASTE, LIQUID, N.O.S.
9 NA3082 PG III (F003)(ERG#171)

US EPA WASTE CODES: F003
USA

REVIEW COMMENTS:

****

*
* OK FOR HAZARDOUS WASTE WATER ONLY. WASTE SHIPPED IN DRUMS FROM THE
* CUSTOMERS SITE NEED TO BE EQUIPPED WITH A BUNG ON THE TOP LID PRIOR TO
* SHIPMENT. DRUMS RECEIVED FROM THE CUSTOMER LACKING BUNGS WILL BE RETURNED
* TO THE CUSTOMER BY THE SK TSDF.
*
* PROPER SHIPPING DESCRIPTION WAS BASED ON SURVEY INFORMATION AND/OR
* ATTACHMENTS RATHER THAN ANALYSIS. SEE COMMENTS FOR DETAILS AND NOTICES.
*
* F003 IS BASED ON THE SURVEY.
*
* THE WASTE IS NOT D001 BASED ON LAB ANALYSIS.
*
* ADDITIONAL INFORMATION IS NEEDED TO COMPLETE THE PREQUALIFICATION. PLEASE
* FAX THE REQUESTED INFORMATION TO THE TECHNICAL SUPPORT DEPARTMENT.

DOES GEN AGREE ON EPA/DOT CODES ?

****

THIS PREQUALIFICATION IS NOT ACCEPTED BECAUSE THE REQUEST IS MISSING
INFORMATION THAT MUST BE PROVIDED BY SALES REPRESENTATIVE OR GENERATOR.
THE MISSING INFORMATION MUST BE OBTAINED BY THE SALE REPRESENTATIVE
AND SUBMITTED TO THE TECHNICAL SUPPORT GROUP AT THE TECHNICAL CENTER.

****
* THIS MATERIAL CANNOT BE SHIPPED TO A SAFETY-KLEEN CORP. FACILITY UNTIL *
* PREQUALIFICATION IS ACCEPTED. *
****

CONTINUED ON NEXT PAGE

COMPLETED: 11/10/97
REVISED: 11/10/97
RUN: 11/24/97

MISSING PREQUALIFICATION INFO

BRANCH/SUBMITTER: 010135
ENVIROSYSTEMS

CONTROL #: 1726649-8
LAB #: 6069726649-9
SURVEY #: 1121744

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: YELLOW	
WATER CONTENT	: 99.0 WT%	
NON-VOLATILE RESIDUE	: 0.0 WT%	DESCRIPTION: DRY
FLAMMABILITY	: NO FLASH AT 73 F	BY SETAFLASH
FLAMMABILITY	: NO FLASH AT 140 F	BY SETAFLASH
PH	: DIRECT BY METER	8.0
RADIOACTIVITY	: NONE DETECTED	

COMMENTS: H2O COMP: COMP;

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: < 500 BTU/LB		ASH UPON COMBUSTION	:	1.8 WT%
TOTAL HALOGENS	: < 0.1 WT%				
TOTAL BROMINE	BR: < 0.1 WT%		TOTAL FLUORINE	F : <	0.1 WT%
TOTAL SULFUR	S : < 0.1 WT%		TOTAL CHLORINE	CL: <	0.1 WT%

COMMENTS: CHLORIDE: <0.10;

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: <	0.2	ARSENIC (D004)	AS: <	2		
BARIUM (D005)	BA: <	4	BERYLLIUM	BE: <	0.4		
CADMIUM (D006)	CD: <	0.5	COBALT	CO: <	0.5		
CHROMIUM (D007)	CR: <	0.4	COPPER	CU: <	0.5		
IRON	FE:	5.9	MERCURY (D009)	HG: <	2		
MAGNESIUM	MG:	5.9	MANGANESE	MN: <	0.4		
NICKEL	NI: <	0.7	PHOSPHORUS	P :	1.9		
LEAD (D008)	PB: <	0.9	ANTIMONY	SB: <	3		
SELENIUM (D010)	SE: <	4	TITANIUM	TI: <	0.4		
THALLIUM	TL: <	5.9	VANADIUM	V : <	0.4		
ZINC	ZN: <	2					

GENERAL COMPOSITION: COMPOSITION BY:	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)	100.0	100.0
ORGANIC PHASE (FEEDSTOCK)	0.0	0.0
BOTTOM SLUDGE (SEMISOLIDS)	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)	0.0	0.0
TOTAL	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: 1.000 VISCOSITY (CENTIPOISE): < 50 CPS

SPECIFIC COMPOSITION OF TOTAL SAMPLE COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT	99.0	99.0
NON-VOLATILE RESIDUE DESCRIPTION: DRY	0.0	0.0
VOLATILE ORGANICS BY DIFFERENCE	1.0	1.0
TOTAL	100.0	100.0

*** MISSING PREQUALIFICATION INFO

CONTINUED ON NEXT PAGE

81363-R4505 (REPRINT) PREQUALIFICATION EVALUATION
PARTS WASHER SERVICE COMPLETED: 11/10/97
FLUID RECOVERY SERVICES REVISED: 11/10/97
RUN: 11/24/97

MISSING PREQUALIFICATION INFO

ANCH/SUBMITTER: 010135 CONTROL #: 1726649-8
VIROSYSTEMS LAB #: 6069726649-9
SURVEY #: 1121744

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: NEAT
DETECTION METHODS : FID, FID

COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
ACETONE CODE: ACE CAS NUMBER: 67-64-1	100.0	1.0
TOTAL	100.0	1.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: XXX XXX LAB: SK TECHNICAL CTR
RELEASED: 11/10/97 ANALYZED: 11/10/97 SUBMITTED: 11/05/97

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

*** MISSING PREQUALIFICATION INFO END OF DOCUMENT

81363-R4784 PREQUALIFICATION EVALUA PAGE 1 OF
ENVIROSYSTEMS COMPLETED: 06/17/9
ENVIROSYSTEMS - FUELS REVISED:
RUN: 06/18/9

ACCEPT FOR SHIPMENT

safety-kleen

'ANCH/SUBMITTER: 010133 CONTROL #: 2606774-9
:NVIROSYSTEMS LAB #: 3179606774-8
SURVEY #: 1035474

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
VEGA ALTA, PR 00692 PRI

ATTN: JUAN PEREZ

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: FUEL #6

NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS: MANIFEST
CARRE 690 KM 1.1
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: BOILER
GENERATION AMOUNT: 165 GALLONS QUARTERLY PART#:
P.O. #: DATE SURVEY SIGNED: 05/13/96
CONTACT: JUAN PEREZ TITLE: SUPV PHN: 787-883-5800
CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082112 WASTE,NON-PUMP -55
REVIEW DATE: 06/17/1996 REVIEWERS: KAW

APPROVED FACILITIES:
SAFETY-KLEEN CORP.
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0005542 DRUM OR BULK FUEL OIL
(NOT USDOT HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:

****

*

* OK FOR NONPUMPABLE FUEL.

*

* A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR USEPA NON-HAZARDOUS
* APPROVAL HAS BEEN RECEIVED.

****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY
DTED ABOVE HAS THE APPROPRIATE PERMITS, CAPABILITIES, CAPACITY; AND IS
WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAG

ACCEPT FOR SHIPMENT

CONTROL #: 2606774-9
ANCH/SUBMITTER: 010133 LAB #: 3179606774-8
ENVIROSYSTEMS SURVEY #: 1035474

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	: DK BROWN		
WATER CONTENT	: 3.7 WT%		
NON-VOLATILE RESIDUE:	90.8 WT%	DESCRIPTION: SOLID	
FLAMMABILITY	: NO FLASH AT 73 F	BY SETAFLASH	
FLAMMABILITY	: NO FLASH AT 140 F	BY SETAFLASH	
PH	: EXTRACT BY METER	9.2	
RADIOACTIVITY	: NONE DETECTED		

COMMENTS: PH SCREEN BY METER

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	: 18700 BTU/LB		ASH UPON COMBUSTION	:	0.6 WT%
TOTAL BROMINE	BR: < 0.1 WT%		TOTAL CHLORINE	CL: <	0.1 WT%
TOTAL FLUORINE	F : < 0.1 WT%		TOTAL SULFUR	S :	1.0 WT%

COMMENTS: TOTAL HALIDES = 549 PPM BY HPLC

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

SILVER (D011)	AG: < 1		ALUMINUM	AL:	220
ARSENIC (D004)	AS: < 15		BARIUM (D005)	BA:	3
BERYLLIUM	BE: < 1		CALCIUM	CA:	199
CADMIUM (D006)	CD: < 1		COBALT	CO: <	5
CHROMIUM (D007)	CR: < 2		COPPER	CU:	3
IRON	FE: 43		MERCURY (D009)	HG: <	10
POTASSIUM	K : < 50		MAGNESIUM	MG: <	15
MANGANESE	MN: < 1		MOLYBDENUM	MO: <	2
SODIUM	NA: 244		NICKEL	NI:	59
PHOSPHORUS	P : < 30		LEAD (D008)	PB: <	10
ANTIMONY	SB: < 15		SELENIUM (D010)	SE: <	20
TIN	SN: < 10		TITANIUM	TI:	7
THALLIUM	TL: < 80		VANADIUM	V :	92
ZINC	ZN: 61				

GENERAL COMPOSITION:	COMPOSITION BY:	APPEARANCE (VOL%)	TOT (WT
AQUEOUS PHASE (FREE WATER)	.....	0.0	0
ORGANIC PHASE (FEEDSTOCK)	.....	100.0	100
BOTTOM SLUDGE (SEMISOLIDS)	.....	0.0	0
BOTTOM SOLID (SETTLED SOLIDS)	.....	0.0	0
TOTAL		100.0	100

TOTAL PHASE SPECIFIC GRAVITY: .942 VISCOSITY (CENTIPOISE): 26750 C

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 06/17/96
REVISED:
RUN: 06/18/96

ACCEPT FOR SHIPMENT

CONTROL #: 2606774-9
ANCH/SUBMITTER: 010133 LAB #: 3179606774-8
ENVIROSYSTEMS SURVEY #: 1035474

SPECIFIC COMPOSITION OF TOTAL SAMPLE

COMPOSITION OF:	TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT.....	3.7	3.7
NON-VOLATILE RESIDUE DESCRIPTION: SOLID	90.8	90.8
VOLATILE ORGANICS BY DIFFERENCE.....	5.5	5.5
TOTAL	100.0	100.0

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID

COMPOUND NAME / COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPL (WT%
HIGH-BOILING HYDROCARBONS (C14-C20)	58.8	3.
CODE: HHC CAS NUMBER:		
MEDIUM-BOILING HYDROCARBONS (C9-C13)	38.3	2.
CODE: MHC CAS NUMBER: 8030-30-6		
TOTAL OTHERS (<1.0% EACH)	2.9	0.
CODE: TO CAS NUMBER:		
TOTAL	100.0	5.

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <

LABORATORY REVIEW: A SEG CODE: REVIEWERS: TLM TLM LAB: PREQ NEW CASTLE
RELEASED: 06/14/96 ANALYZED: 06/14/96 SUBMITTED: 06/10/96
COMMENTS: ZN = 61 PPM

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITIES.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

*** ACCEPT FOR SHIPMENT END OF DOCUME

81363-R4784
ENVIROSYSTEMS
OWENS ILLINOIS DE PR

PREQUALIFICATION EVALUATION
MANIFEST INFORMATION

REVISED:
RUN: 06/18/96
CONTROL #: 2606774-9
SAMPLE #: 1035474

REQUIRED MANIFEST FORM: PR

SAFETY-KLEEN CORP. PROVIDES THIS MANIFESTING INFORMATION FOR INSTRUCTIONAL PURPOSES ONLY. ALL THE INFORMATION IS BELIEVED TO BE ACCURATE, BUT IS KNOWN TO BE INCOMPLETE. FEDERAL AND STATE REGULATIONS AND THE INSTRUCTIONS ON THE MANIFEST FORM SHOULD BE CONSULTED FOR COMPLETE INFORMATION. IN ADDITION, CERTAIN VARIATIONS MAY BE ALLOWED BY REGULATIONS, BUT NEED TO BE APPROVED BY A SAFETY-KLEEN REPRESENTATIVE PRIOR TO SHIPMENT.

UNIFORM HAZARDOUS WASTE MANIFEST	1. GENERATORS US EPA NO. PRD090490285	DOCUMENT NO.	2.PAGE 1	UNDERLINED AREAS ARE REQUIRED

3. GENERATOR NAME AND MAILING ADDRESS

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1/BARRIO
SABANA THORP/PO BOX 387
VEGA ALTA PR 00692-038

4. GENERATOR PHONE 809 725 5800

A. STATE MANIFEST DOCUMENT NC

B. STATE GENERATOR ID

5. TRANSPORTER 1 CO NAME	6. US EPA ID NO	C. ST TRANS ID
SAFETY-KLEEN CORP.	ILD984908202	D. TRANSPORTER PHONE

7. TRANSPORTER 2 CO NAME	8. US EPA ID NO	E. ST TRANS ID
		F. TRANSPORTER PHONE

9. FACILITY NAME AND SITE ADDRESS 10. US EPA ID NUMBER

SAFETY-KLEEN CORP.
KM51 HWY #2 PRD090399718
MANATI, PR 00674

G. FACILITY STATE II

H. FACILITY PHONE
809 854 1090

11. US DOT DESCRIPTION	CONTAINER	I. WASTE NO
A. HM. FUEL OIL (NOT USDOT HAZARDOUS MATERIAL)		N/

J. ADDITIONAL DESCRIPTION FOR THE MATERIALS LISTED ABOVE

K. HANDLING CODE

15. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

EMERGENCY RESP#708-888-4660(24 HR). IF UNDELIVERABLE, RETURN TO GENERATOR

PREQUALIFICATION EVALUATION

COMPLETED: 05/02/9[illegible]
REVISED:
RUN: 05/03/9[illegible]

ACCEPT FOR SHIPMENT

safety-kleen®

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
VIROSYSTEMS

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
BARRIO SABANO
VEGA ALTA, PR 00692 PRI

ATTN: RAFAEL BELTRAN

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: WASTE OIL

NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS:
CARRE 690 KM 1.1
BARRIO SABANO
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: MACHINE LUBRICATION
GENERATION AMOUNT: 10000 GALLONS YEARLY PART#:

P.O. #: DATE SURVEY SIGNED: 04/06/95
CONTACT: RAFAEL BELTRAN TITLE: MECHANIC PHN: 809-883-5800

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAG

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 05/02/95
REVISED:
RUN: 05/03/95

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082102 WASTE,N-SPEC FUEL-55
REVIEW DATE: 04/28/1995 REVIEWERS: CAP

APPROVED FACILITIES:
SAFETY-KLEEN ENVIROSYSTEMS
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001082 DRUM OR BULK WASTE OIL AND WATER MIXTURE
(NOT USDOT HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:
****
*
* PROPER SHIPPING DESCRIPTION WAS BASED ON THIS SINGLE ANALYSIS. GENERATOR
* MUST CERTIFY THAT SHIPMENT IS NOT HAZARDOUS. PER COMPANY POLICY, FRS
* CUSTOMERS MUST COMPLETE GENERATOR CERTIFICATION WITH EACH SHIPMENT
* AND BRANCH WILL FILE IN CUSTOMER RECORDS.

OK FOR FLOWABLE FUEL.
*
* THE LAB HAS RECEIVED A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR
* NON-HAZARDOUS APPROVAL.
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, HAS CAPABILITY, HAS CAPACITY AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.

CONTINUED ON NEXT PAG

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 05/02/95
REVISED:
RUN: 05/03/95

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	GRAY DK GRAY
WATER CONTENT	:	53.0 WT%
NON-VOLATILE RESIDUE	:	47.0 WT% DESCRIPTION: OIL
FLAMMABILITY	:	NO FLASH AT 142 F BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 75 F BY SETAFLASH
PH	:	EXTRACT BY METER 5.9
RADIOACTIVITY	:	NONE DETECTED

COMMENTS: NO FLASH AT 202F,NVR AT 200C=28.4 OIL&SLUDGE

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	9100 BTU/LB	ASH UPON COMBUSTION	: <	1.0 WT%
TOTAL SULFUR	S :	0.1 WT%	TOTAL BROMINE	BR: <	0.1 WT%
TOTAL CHLORINE	CL: <	0.1 WT%	TOTAL FLUORINE	F : <	0.1 WT%

COMMENTS: CHLORIDE=107PPM

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

COPPER		CU:	13	ANTIMONY		SB: <	15
IRON		FE:	243	TITANIUM		TI:	8
NICKEL		NI:	6	ZINC		ZN:	109
PHOSPHORUS		P :	116	MAGNESIUM		MG:	37
SILVER	(D011)	AG: <	1	ARSENIC	(D004)	AS: <	10
BARIUM	(D005)	BA: <	20	BERYLLIUM		BE: <	2
CADMIUM	(D006)	CD: <	3	CHROMIUM	(D007)	CR: <	2
MERCURY	(D009)	HG: <	10	LEAD	(D008)	PB: <	5
SELENIUM	(D010)	SE: <	20	THALLIUM		TL: <	30

GENERAL COMPOSITION:	COMPOSITION BY: CENTRIFUGE (VOL%)	APPEARANCE (VOL%)	TOTAL (WT%
AQUEOUS PHASE (FREE WATER).....	50.0	8.0	8.
ORGANIC PHASE (FEEDSTOCK).....	48.0	92.0	92.
BOTTOM SLUDGE (SEMISOLIDS).....	2.0	0.0	0.
BOTTOM SOLID (SETTLED SOLIDS).....		0.0	0.
TOTAL	100.0	100.0	100.

TOTAL PHASE SPECIFIC GRAVITY: .930 VISCOSITY (CENTIPOISE): 1250 CP

SPECIFIC COMPOSITION OF TOTAL SAMPLE	COMPOSITION OF: TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT.....	53.0	53.0
NON-VOLATILE RESIDUE DESCRIPTION: OIL	47.0	47.0
VOLATILE ORGANICS BY DIFFERENCE.....	0.0	0.0
TOTAL	100.0	100.0

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

COMPLETED: 05/02/95
REVISED:
RUN: 05/03/95

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY
SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID, MASS-SPEC

COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
COMPOUND NAME		
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)	100.0	0.0
CODE: NONE CAS NUMBER:		
TOTAL	100.0	0.0

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <
SAFETY-KLEEN REGULATED COMPOUNDS: NONE DETECTED

LABORATORY REVIEW: A SEG CODE: REVIEWERS: JA JA LAB: SK TECHNICAL CTR
RELEASED: 05/01/95 ANALYZED: 04/28/95 SUBMITTED: 04/13/95
COMMENTS: H2O COMP:NEG, COAG. TEST:PASS, WATER REACTIVITY:
NEGATIVE, WATER ESTIMATED BY DIFFERENCE.

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITY.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

*** ACCEPT FOR SHIPMENT

END OF DOCUMENT

Laidlaw Environmental Services, Inc. of Barlow

12/17/97 07:11:26 Page: 1

Lab Detail Report for Composite # 6219

Analysis Number: CHEVE-960013 SHS Number : 51663

Manifest Line #: 1 A Receipt Date : 12/21/94

Silica Code : 000596 OCHOA INDUSTRIAL SALES CORP

Generator Code : CHEVR CHEVRON-ILLINOIS

Stream Code : 20252 BASE CONT./WTER SOLV

Drums Tested : 20 Analyzed by : CJK

Layers : SINGLE pH : 1

% Free Liquid : 0.00 Dest/Process : RCP

EPA Codes :

Comments: 021

Drum No	Prev Type	Gals	Ages Anal.	Pounds	Appearance	Sludge
961021-CHEVR-001	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-002	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-003	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-004	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-005	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-006	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-007	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-008	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-009	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-010	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-011	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-012	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-013	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-014	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-015	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-016	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-017	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-018	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-019	D	55.00	0.000	417.25	BASE-NP SAL	0
961021-CHEVR-020	D	55.00	0.000	417.25	BASE-NP SAL	0

Compounds Found in Sample

Compound Description	LAB PPM	LAB Pct	Current Pct
Water (000732)	******	100	
PCB PCB's (0099)	0	0	

Lab Detail Report For Composite 6 4419

BTU per Gallon Value for this Lab Report is: 0
BTU per Pound Value for this Lab Report is: 0

Laidlaw Environmental Services, Inc. of Bartow

12/17/97 05:31:54 Page: 1

Lab Detail Report For Composite # 8317

Manifest Number:	OHSVE-95004	BNG Number	: 53500
Manifest Line #:	1 A	Receipt Date	: 03/16/98
Billto Code	: 000504	OCHOA INDUSTRIAL GAMES CORP	
Generator Code	: OHSVE	OHSVE-ILLINOIS	
Stream Code	: 20253	FILM LUBRICANT/PAINT	
# Drums Tested	: 2	Prepared by	: SDR
Layers	: SINGLE	pH	: 11.1
% Free Liquid	: 0.00	Desk/Process	: CF

EPA Codes : F003 F002

Comments: SD1

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
980316-OHSVE-001	B	53.00	8.000	456.00	DR-SOFT SLUDGE-P	0
980316-OHSVE-002	C	56.00	8.000	480.00	DR-HARD SLUDGE-P	10

Compounds Found in Sample

Compound	Description	LAB PPM	LAB Pct	STREAM Pct
11201	1, 1, 1 TRICHLOROETHANE	120000	12	
BUTYL	BUTYL ALCOHOL	200000	36	
HIGH	HIGH BOILING HYDROCARBONS	440000	44	
PCB	(PCB'S (PPM))			
		0	0	
XYL01	XYLENE	160000	16	

BTU per Gallon Value for this Lab Report is: 113303

BTU per Pound Value for this Lab Report is: 13651

Laidlaw Environmental Services, Inc. of Bartow

12/17/97 07:31:55 Page: 1

Lab Detail Report For Composite # 8314

Manifest Number:	OHMVE-95004	GWO Number	: 53588
Manifest Line #:	1 A	Receipt Date	: 03/26/97
Billto Code	: 888684	OCHOA INDUSTRIAL SALES CORP	
Generator Code	: OHMVE	OHMVE-ILLINOIS	
Stream Code	: 30583	FIIM LUBRICANT/PAINT	
# Drums Tested	: 1	Prepared by	: SDR
Layers	: SINGLE	pH	: 10.5
% Free Liquid	: 0.00	Dest/Process	: FF

EPA Codes : F003 F003

Comments: 001

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
950315-OHMVE-001	B	60.00	0.870	263.01	DR-DARK-P	4

Compounds Found in Sample

Compound	Description	LAB PPM	LAB Det	STREAM Pct
BUTYL	BUTYL ALCOHOL	120000	12	
HYCB1	HIGH BOILING HYDROCARBONS	840000	84	
PCB	(PCB'S (PPM))			
		0	0	
XYLB1	XYLENE	40000	4	

BTU per Gallon Value for this Lab Report is: 125235

BTU per Pound Value for this Lab Report is: 16884

Laidlaw Environmental Services, Inc. of Bartow

12/17/97 07:12:06 Page: 1

Lab Detail Report for Composite # 19418

Manifest Number:	OHEVE-95014	BWO Number	: 57065
Manifest Line #:	1 A	Receipt Date	: 10/19/95
Billto Code	: 008584	OCHOA INDUSTRIAL SALES CORP	
Generator Code	: OHEVE	OWENS-ILLINOIS	
Stream Code	: 31268	RAGS WITH METHYLENE CHLORIDE	
# Drums Tested	: 1	Prepared by	: VEM
Layers	: two	pH	: 6.4
% Free Liquid	: 0.00	Dest/Process	: MECU2

EPA Codes : F002

Comments: SOL-PROCESS LIQ. SEND RAGS TO MSF

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
861019-OHEVE-001	D	50.00	1.281	534.50	SSDR-LIQ/RAGS-P	0

Compounds Found in Sample

Compound	Description	LAB PPM	LAB Pct	STREAM Pct
MET02	METHANOL	20000	2	
MET04	METHYLENE CHLORIDE	710000	71	
PCB	(PCB'S (PPM))			
		0	0	
RAG01	RAGS	70000	7	
WATER	(WATER (%))			
		200000	20	

BTU per Gallon Value for this Lab Report is: 10945

BTU per Pound Value for this Lab Report is: 1793

Laidlaw Environmental Services, Inc. of Denver

12/17/97 09:28:15 Page: 1

Lab Recall Report For Composite # 22731

Manifest Number: CHEVR-960907 EMO Number : 68857

Manifest Line #: 1 A Receipt Date : 06/21/96

Billto Code : 000584 OCEDA INDUSTRIAL SALES CORP

Generator Code : CHEVR OHEVRON-ILLINOIS

Stream Code : 38853 SHOP CONT./WITH DEBT

Drums Tested : 13 Delegated by : VEH

Layers : SINGLE pH :

% Free Liquid : 0.00 Cost/Process : DI/SO/HEM

EPA Codes : HEM

Comments: 801

Drum No	Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
960711-CHEVR-001	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-002	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-003	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-004	D	55.00	0.000	458.96		0
960711-CHEVR-005	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-006	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-007	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-008	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-009	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-010	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0
960711-CHEVR-011	D	50.00	0.000	417.25	SOLR-CLOTH FILT-HP	0
960711-CHEVR-012	D	55.00	0.000	458.96	SOLR-CLOTH FILT-HP	0

Compounds found in Sample

Compound	Description	VAO PPM	LAB Pct	STREAM Pct
FILT	FILTERS	0	0	
PLAS	PLASTIC	------	100	
POWD	(POWDER)			
		0	0	

BTU per Gallon Value for this Lab Report is: 0

BTU per Pound Value for this Lab Report is: 0

EXHIBIT S

1/5/1998 OIPR's Response to RCRA § 3007 Request for Information

GOLDMAN ANTONETTI & CORDOVA
ATTORNEYS AND COUNSELORS AT LAW
AMERICAN INTERNATIONAL PLAZA
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TELEPHONE (787) 759-8000
TELECOPIER (787) 767-9333

January 5, 1998

VIA FEDEX

Keith N. Stuart, Esq.
Assistant Regional Counsel
U. S. EPA - Region II
290 Broadway, 16th Floor
New York, NY 10007-1866

Re: Owens-Illinois of Puerto Rico
RCRA §3007 Request for Information

Dear Mr. Stuart:

In its response to the RCRA §3007 Request for Information dated October 28,1997, Owens-Illinois of Puerto Rico enclosed a letter to Safety-Kleen requesting a readable copy of the analytical results of sample SKL2372 that was previously forwarded to the U.S. Environmental Protection Agency. Safety-Kleen recently provided to Owens-Illinois a legible copy of the pertinent analytical results in a different format, copy of which is enclosed. Attached please also find a copy of a letter from Safety-Kleen indicating the enclosed document pertains to sample SKL-2372.

Enclosed please also find a cleaner copy of analytical information that was provided to you in our correspondence dated December 24, 1997, associated with waste materials handled by Ochoa Environmental Services on behalf of Owens-Illinois.

Please call us if you have any questions or need any further information.

Cordially yours,

Francis Torres

Enclosures
cc: Milton Rosa

813[illegible]-R4784
ENVI SYSTEMS
ENVIROSYSTEMS - FUELS

PREQUALIFICATION EVALUATION

PAGE 1 OF 4
COMPLETED: 05/02/95
REVISED:
RUN: 05/03/95

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERATOR INFORMATION: CUSTOMER NUMBER: 0000-62-1232

OWENS ILLINOIS DE PR
CARRE 690 KM 1.1
BARRIO SABANO
VEGA ALTA, PR 00692 PRI

ATTN: RAFAEL BELTRAN

SALESPERSON: 010133 - MIGUEL PONS

GENERAL DESCRIPTION: WASTE OIL
NATURE OF BUSINESS: MFG S.I.C.: STATUS:
FEDERAL EPA ID: PRD090490285 STATE ID(S):

FACILITY ADDRESS:
CARRE 690 KM 1.1
BARRIO SABANO
VEGA ALTA, PR PRI 00692

BILLING ADDRESS:
PO BOX 387
VEGA ALTA, PR PRI 00692

PROCESS DESCRIPTION: MACHINE LUBRICATION
GENERATION AMOUNT: 10000 GALLONS YEARLY PART#:
P.O. #: DATE SURVEY SIGNED: 04/06/95
CONTACT: RAFAEL BELTRAN TITLE: MECHANIC PHN: 809-883-5800

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

PREQUALIFICATION EVALUATION

COMPLETED: 05/[illegible]/95
REVISED:
RUN: 05/03/95

81363-R4784
ENVIROSYSTEMS
E ROSYSTEMS - FUELS

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

CORPORATE REVIEW:
DISPOSITION: ACCEPT FOR SHIP PART NUMBER: 0082102 WASTE,N-SPEC FUEL-55
REVIEW DATE: 04/28/1995 REVIEWERS: CAP

APPROVED FACILITIES:
SAFETY-KLEEN ENVIROSYSTEMS
KM51 HWY #2
MANATI, PR 00674
FED EPA#: PRD090399718
STATE EPA#:
TELEPHONE: 8098541090
STATE AUTH:

APPROVED DOT - SHIPPING DESCRIPTION
0001082 DRUM OR BULK WASTE OIL AND WATER MIXTURE
(NOT USDOT HAZARDOUS MATERIAL)

US EPA WASTE CODES: NONE
USA

REVIEW COMMENTS:
****
* PROPER SHIPPING DESCRIPTION WAS BASED ON THIS SINGLE ANALYSIS. GENERATOR
* MUST CERTIFY THAT SHIPMENT IS NOT HAZARDOUS. PER COMPANY POLICY, FRS
* CUSTOMERS MUST COMPLETE GENERATOR CERTIFICATION WITH EACH SHIPMENT
AND BRANCH WILL FILE IN CUSTOMER RECORDS.
*
* OK FOR FLOWABLE FUEL.
*
* THE LAB HAS RECEIVED A GENERATOR WASTE DETERMINATION CERTIFICATION FORM FOR
* NON-HAZARDOUS APPROVAL.
****

THIS SERVES AS NOTICE PER FEDERAL AND STATE REGULATIONS THAT EACH FACILITY NOTED ABOVE HAS THE APPROPRIATE PERMITS, HAS CAPABILITY, HAS CAPACITY AND IS WILLING TO ACCEPT THE MATERIAL AS DESCRIBED IN THE APPROVAL SECTION.

CONTINUED ON NEXT PAGE

81363-R4784 PREQUALIFICATION EVALUATION PAGE 3 OF 4
ENVIROSYSTEMS COMPLETED: 05/02/95
ENVIROSYSTEMS - FUELS REVISED:
RUN: 05/03/95

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

GENERAL ANALYSIS OF TOTAL SAMPLE

COLOR	:	GRAY DK GRAY	
WATER CONTENT	:	53.0 WT%	
NON-VOLATILE RESIDUE	:	47.0 WT%	DESCRIPTION: OIL
FLAMMABILITY	:	NO FLASH AT 142 F	BY SETAFLASH
FLAMMABILITY	:	NO FLASH AT 75 F	BY SETAFLASH
PH	:	EXTRACT BY METER 5.9	
RADIOACTIVITY	:	NONE DETECTED	

COMMENTS: NO FLASH AT 202F,NVR AT 200C=28.4 OIL&SLUDGE

FUEL EVALUATION OF TOTAL SAMPLE

HEAT CONTENT	:	9100 BTU/LB	ASH UPON COMBUSTION	:	<	1.0 WT%
TOTAL SULFUR	S :	0.1 WT%	TOTAL BROMINE	BR:	<	0.1 WT%
TOTAL CHLORINE	CL: <	0.1 WT%	TOTAL FLUORINE	F :	<	0.1 WT%

COMMENTS: CHLORIDE=107PPM

METALS CONTENT OF TOTAL SAMPLE (PPM): DIGEST BY: ICP

COPPER		CU:	13	ANTIMONY	SB:	<	15
IRON		FE:	243	TITANIUM	TI:		8
NICKEL		NI:	6	ZINC	ZN:		109
PHOSPHORUS		P :	116	MAGNESIUM	MG:		37
SILVER	(D011)	AG: <	1	ARSENIC (D004)	AS:	<	10
BARIUM	(D005)	BA: <	20	BERYLLIUM	BE:	<	2
CADMIUM	(D006)	CD: <	3	CHROMIUM (D007)	CR:	<	2
MERCURY	(D009)	HG: <	10	LEAD (D008)	PB:	<	5
SELENIUM	(D010)	SE: <	20	THALLIUM	TL:	<	30

GENERAL COMPOSITION:	COMPOSITION BY: CENTRIFUGE (VOL%)	APPEARANCE (VOL%)	TOTAL (WT%)
AQUEOUS PHASE (FREE WATER)	50.0	8.0	8.0
ORGANIC PHASE (FEEDSTOCK)	48.0	92.0	92.0
BOTTOM SLUDGE (SEMISOLIDS)	2.0	0.0	0.0
BOTTOM SOLID (SETTLED SOLIDS)		0.0	0.0
TOTAL	100.0	100.0	100.0

TOTAL PHASE SPECIFIC GRAVITY: .930 VISCOSITY (CENTIPOISE): 1250 CPS

SPECIFIC COMPOSITION OF TOTAL SAMPLE	COMPOSITION OF: TOTAL SAMPLE (WT%)	TOTAL SAMPLE (WT%)
WATER CONTENT		53.0	53.0
NON-VOLATILE RESIDUE	DESCRIPTION: OIL	47.0	47.0
VOLATILE ORGANICS BY DIFFERENCE		0.0	0.0
TOTAL		100.0	100.0

*** ACCEPT FOR SHIPMENT

CONTINUED ON NEXT PAGE

PREQUALIFICATION EVALUATION

PAGE 4 OF 4
COMPLETED: 05/03/95
REVISED:
RUN: 05/03/95

-R4784
ENVIROSYSTEMS
ENVIROSYSTEMS - FUELS

ACCEPT FOR SHIPMENT

CONTROL #: 1507524-7
LAB #: 6069507524-8
SURVEY #: 355535

BRANCH/SUBMITTER: 010133
ENVIROSYSTEMS

VOLATILE ORGANIC COMPOSITION OF TOTAL SAMPLE BY GAS CHROMATOGRAPHY

SAMPLE PREPARATION METHODS: CS2-EXTRACT
DETECTION METHODS : FID, FID, MASS-SPEC

COMPOSITION OF:	VOLATILE ORGANICS (WT%)	TOTAL SAMPLE (WT%)
	100.0	0.0
COMPOUND NAME		
NO VOLATILE ORGANICS DETECTED (<0.1% EACH)		
CODE: NONE CAS NUMBER:	100.0	0.0
TOTAL		

SPECIFIC ORGANIC COMPOSITION
POLYCHLORINATED BIPHENYLS (PCBS): NONE DETECTED <
SAFETY-KLEEN REGULATED COMPOUNDS: NONE DETECTED

LABORATORY REVIEW: A SEG CODE: REVIEWERS: JA JA LAB: SK TECHNICAL CTR
RELEASED: 05/01/95 ANALYZED: 04/28/95 SUBMITTED: 04/13/95
COMMENTS: H2O COMP:NEG, COAG. TEST:PASS, WATER REACTIVITY:
NEGATIVE, WATER ESTIMATED BY DIFFERENCE.

THE ANALYSIS CONTAINED HEREIN ARE PERFORMED SOLELY FOR THE PURPOSE OF QUALIFYING THE ANALYZED MATERIALS FOR ACCEPTANCE BY SAFETY-KLEEN CORP. IN ACCORDANCE WITH ITS PERMITS AND PROCESSING CAPABILITY.

NOTICE OF LAND DISPOSAL RESTRICTION OF WASTE IS NOT REQUIRED.

END OF DO

--- ACCEPT FOR SHIPMENT

safety-kleen

SAFETY-KLEEN ENVIROSYSTEMS COMPANY OF P.R., INC.
PLANT LOCATION: KM. 51 HIGHWAY 2
P.O. BOX 31095, MANATI, P.R. 00674 / TEL. (787) 854-1090
1-800 981-7460 (P.R.) / FAX (787) 884-4452

December 30, 1997

Mr. Milton Rosa
Owens Illinois
P.O. Box 387
Vega Alta, Puerto Rico 00672

Re: Fax Sent on December 23, 1997

Dear Mr. Rosa:

The fax I sent myself to you on December 23, 1997 with Control #1507524-7 is the original and the equivalent of sample SKL-2372.

If you have any questions, please feel free to contact me at 800/981-0900.

Cordially,

Miguel Pons
Toll Processing Manager

mm

MAINTENANCE
DEC 30 1997
RECEIVED

Laidlaw Environmental Services, Inc. of Bartow

12/17/97 07:31:26 Page: 1

Lab Detail Report For Composite # 4219

Manifest Number: OWEVE-94013 SWO Number : 51652
Manifest Line #: 1 A Receipt Date : 10/31/94
Billto Code : 880584 OCHOA INDUSTRIAL SALES CORP
Generator Code : OWEVE OWENS-ILLINOIS
Stream Code : 20252 BAGS CONT./WITH DUST
Drums Tested : 20 Prepared by : CJM
Layers : SINGLE pH :
% Free Liquid : 0.00 Dest/Process : MSP

EPA Codes : NRM

Comments: SO1

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
941031-OWEVE-001	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-002	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-003	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-004	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-005	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-006	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-007	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-008	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-009	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-010	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-011	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-012	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-013	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-014	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-015	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-016	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-017	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-018	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-019	D	50.00	0.000	417.25	BAGS-NP RAL	0
941031-OWEVE-020	D	50.00	0.000	417.25	BAGS-NP RAL	0

Compounds Found in Sample

Compound	Description	LAB PPM	LAB Pct	STREAM Pct
DEBR1	(DEBRIS)	******	100	
PCB	(PCB'S (PPM))	0	0	

Lab Detail Report For Composite # 4219

BTU per Gallon Value for this Lab Report is: 0
BTU per Pound Value for this Lab Report is: 0

Laidlaw Environmental Services, Inc. of Bartow

12/17/97 07:31:54

Lab Detail Report For Composite # 8317

Manifest Number: OWEVE-95004
Manifest Line #: 1 A
Billto Code : 880584
Generator Code : OWEVE
Stream Code : 20253
Drums Tested : 2
Layers : SINGLE
% Free Liquid : 0.00

SWO Number : 53588
Receipt Date : 03/16/95
OCHOA INDUSTRIAL SALES CORP
OWENS-ILLINOIS
FILM LUBRICANT/PAINT
Prepared by : SDR
pH : 11.1
Dest/Process : CF

EPA Codes : F003 F003

Comments: SO1

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
950316-OWEVE-001	B	55.00	0.000	458.98	DR-SOFT SLUDGE-P	8
950316-OWEVE-002	C	55.00	0.000	458.98	DR-HARD SLUDGE-P	10

Compounds Found in Sample

	Compound Description	LAB PPM	LAB Pct	STREAM Pct
11101	1, 1, 1 TRICHLOROETHANE	120000	12	
BUTYL	BUTYL ALCOHOL	280000	28	
HIG01	HIGH BOILING HYDROCARBONS	440000	44	
PCB	(PCB'S (PPM))			
		0	0	
XYL01	XYLENE	160000	16	

BTU per Gallon Value for this Lab Report is: 113303
BTU per Pound Value for this Lab Report is: 13651

Laidlaw Environmental Services, Inc. of Bartow

12/17/97 07:31:55

Lab Detail Report For Composite # 8318

Manifest Number:	OWEVE-95004	SWO Number :	53588
Manifest Line #:	1 A	Receipt Date :	03/16/95
Billto Code :	880584		OCHOA INDUSTRIAL SALES CORP
Generator Code :	OWEVE		OWENS-ILLINOIS
Stream Code :	20253		FILM LUBRICANT/PAINT
# Drums Tested :	1	Prepared by :	SDR
Layers :	SINGLE	pH :	10.5
% Free Liquid :	0.00	Dest/Process :	FF

EPA Codes : F003 F003

Comments: SO1

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
950316-OWEVE-003	B	50.00	0.870	363.01	DR-DARK-P	4

Compounds Found in Sample

Compound	Description	LAB PPM	LAB Pct	STREAM Pct
BUTYL	BUTYL ALCOHOL	120000	12	
HIG01	HIGH BOILING HYDROCARBONS	840000	84	
PCB	(PCB'S (PPM))			
		0	0	
XYL01	XYLENE	40000	4	

BTU per Gallon Value for this Lab Report is: 125238

BTU per Pound Value for this Lab Report is: 16884

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12/17/97 07:32:06

Lab Detail Report For Composite # 15410

Manifest Number: OWEVE-95014 SWO Number : 57055
Manifest Line #: 1 A Receipt Date : 10/19/95
Billto Code : 880584 OCHOA INDUSTRIAL SALES CORP
Generator Code : OWEVE OWENS-ILLINOIS
Stream Code : 31268 RAGS WITH METHYLENE CHLORIDE
Drums Tested : 1 Prepared by : VHM
Layers : TWO pH : 6.4
% Free Liquid : 0.00 Dest/Process : MECL2

EPA Codes : F002

Comments: S01-PROCESS LIQ. SEND RAGS TO MSP

Drum No	Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
951019-OWEVE-001	D	50.00	1.281	534.50	SSDR-LIQ/RAGS-P	0

Compounds Found in Sample

Compound	Description	LAB PPM	LAB Pct	STREAM Pct
MET02	METHANOL	20000	2	
MET04	METHYLENE CHLORIDE	710000	71	
PCB	(PCB'S (PPM))			
		0	0	
RAG01	RAGS	70000	7	
WATER	(WATER (%))			
		200000	20	

BTU per Gallon Value for this Lab Report is: 18945
BTU per Pound Value for this Lab Report is: 1793

aidlaw Environmental Services, Inc. of Bartow

Detail Report For Composite # 22731

er: OWEVE-96007	SWO Number	: 60857	
#: 1 A	Receipt Date	: 06/11/96	
: 880584	OCHOA INDUSTRIAL SALES CORP		
: : OWEVE	OWENS-ILLINOIS		
: 20252	BAGS CONT./WITH DUST		
: 12	Prepared by	: VHH	
: SINGLE	pH	:	
: 0.00	Dest/Process	: PI/RO/NRM	

NRM

Proc Type	Gals	Spec Grav.	Pounds	Appearance	Sludge
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98		0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0
D	50.00	0.000	417.25	55DR-CLOTH FILT-NP	0
D	55.00	0.000	458.98	55DR-CLOTH FILT-NP	0

Compounds Found in Sample

tion	LAB PPM	LAB Pct	STREAM Pct
	0	0	
	******	100	
	0	0	

alue for this Lab Report is: 0

alue for this Lab Report is: 0

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EXHIBIT T

Record Retention Policies from August 1985 to present

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Year Ended December 31, 2004

TO ALL PREPARERS OF FORM 10-K STATEMENTS AND DISCLOSURES

Now that year end closing is done, an important process for the Company is to file its annual report on Form 10-K with the SEC. The Form 10-K is a very comprehensive report on the Company's financial results and financial position. As such, the internal controls over the preparation of the Form 10-K are an important part of our Sarbanes-Oxley compliance.

The provisions of the Sarbanes-Oxley Act are being applied to virtually every aspect of accounting and reporting, particularly with respect to documentation. For the Form 10-K (for both O-I and O-I Group), we need to insure that all financial information presented in the 10-K, including financial statements and disclosures, as well as significant non-financial information, is well-supported by backup schedules and data that can ultimately be traced to appropriate source documents. The sources of data and any calculations or judgments must be documented in a manner that is sufficient to permit review and understanding of the process by auditors or other external examiners. In many cases, the data will come directly from our financial reporting systems by reporting tools which simply summarize or re-format the underlying general ledgers of our reporting entities. In other cases, however, the data will come from non-ledger systems, financial analyses, contracts, confirmations, letters from experts, etc.

In each case where information is supplied to be used in the Form 10-K, the source of the information should be adequately documented. It is critical that the sources of information be retained for a period of 7 years. In most cases, this will not be a change from your current practices. In some cases, however, the preparer of information for inclusion in the 10-K may need to establish files, separate from their own office files, in which to deposit the documentation provided for inclusion in the 10-K, so that it can be clearly identified and retained.

For 10-K information that is prepared outside of the Controller's department, any schedule, table, or other information that is prepared for inclusion in the 10-K needs to have a clear indication (cover note or otherwise) that the preparer asserts that the information is correct (appropriate) for inclusion in the Company's 10-K. In addition, the preparer should note that, if the information sent to the Controller's department is a summary or extract, the details which support such summary information will be retained for 7 years in their department.

The intent of this assertion and documentation process is not to create more paper or multiple versions of the same underlying data. Rather, the intent is to confirm the importance of preparing accurate and complete disclosure

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information and of creating a clear path from the basic data, assumptions, and judgments to the final disclosed information - a path that can be followed and reviewed.

Please circulate this note to others who provide material for inclusion in the 10-K.

If there are any questions, please let me know.

Michael R. Scheiding
Director of Accounting and Financial Reporting

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OWENS-ILLINOIS

RECORDS RETENTION MANUAL

August 1985

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SECTION 1

CONTROLLED RECORD KEEPING

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1. CONTROLLED RECORD KEEPING

1.1 INTRODUCTION

This manual is the result of the efforts of numerous O-I personnel representing a wide variety of functional areas in compiling a consolidated listing of all of the records necessary to the operation of the Company. Due to the significant financial and legal implications relating to the management of O-I records, the underlying purpose in publishing this manual is to satisfy a long-standing need for improved consistency and cost-effectiveness in the maintenance of records throughout the Company.

Your role in this process is vital. While the compilation of records described in this manual is representative of all major functional areas, it is by no means all-inclusive. Your cooperation in advising management of changes necessary to accurately reflect the records unique to your areas is crucial. Further, while the retention periods shown have been reviewed and approved by the Records Committee, and should be adhered to, your input as to the appropriateness of specific retention requirements is requested.

1.2 PURPOSE

Why attempt to manage O-I records in the first place? Three basic reasons are readily apparent:

SPACE - TIME - MONEY

Today, with the proliferation of paperwork evident in a Company the size of ours, thoughtful records management can result in tremendous savings in all three of these areas. Space requirements are reduced through maintaining records only for an appropriate period. Time is saved in storing, retrieving and destroying records under an efficiently organized program. And, finally, the money necessary to administer a well-run records program can be substantially reduced in terms of equipment and supplies required to manage records. The avoidance of possibly serious legal repercussions, which result from under and over-retained files, can also contribute to reduced costs.

While you will continue to physically control the storage and movement of records, your attention to the requirements presented in the consolidated records listings in this manual will serve to substantially reduce costs in the three categories discussed above.

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PREPARING NEW CARTONS FOR STORAGE (STEPS 1 THRU 3)

STEP ONE is to complete a Leonard Bros. Accessions Control Form. This form will allow you to list a maximum of twenty cartons on one form. See instructions below and on Exhibit I. Accessions Control Forms can be obtained from Leonard Bros. by calling 243-7392.

ACCESSIONS CONTROL FORM INSTRUCTIONS

The Accessions Control Form provides information to input into the Leonard Bros. computer records program, so it is very important to write legibly. All spaces discussed below must be completed or the service requested cannot be fulfilled.

FORM HEADING

Dept./Floor	-	Name of your department and floor location.
*Manager	-	Manager or department head's name.
*Div./Dept.	-	All divisions within O-I are identified in our accounting system with two digits (e.g., Glass Container is Division #11). Also, departments within divisions are identified with four digits (e.g., GCD Accounting Department is #1004). Since your cartons will only be released to an authorized person(s) within your department, it is important these numbers are current.
*Prepared By	-	This space must be signed by the individual who is preparing the document/cartons for storage.

***These areas are used to create the authorization lists for cartons placed into storage.**

Date	-	Date carton was prepared for storage.
Received By, Date Trans., R.C. Location, R.C. Box No.	-	All of these areas will be completed by Leonard Bros. personnel.
Temp. Box Number	-	Assign the carton(s) a temporary box number in the upper right hand corner of the carton (not box lid). These numbers should be assigned in continuous numeric sequence on cartons being submitted and on the Accessions Control Form.

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Record Title - This area is provided so you may be able to refer to contents of box. You should enter a general description of carton contents. Only 40 letters can be used in this area. Please use abbreviated words.

Scheduled Destr. Date - Place a date of when the records of each carton can be reviewed for destruction. Refer to Records Retention Schedules section of manual to determine proper destruction dates. If assistance is needed, call JoAnn Takats (1023) for help.

After completing Accessions Control Form, retain Part 3 for your records, and ship Parts 1 and 2 with your cartons by attaching it to the first carton listed on the Accessions Control Form.

During processing, Leonard Bros. will assign a permanent record control box number in the R.C. Box Number section of the Accessions Control Form, and the R.C. Location. They will then return Part I to the requestor to be referred to when retrieving records.

Records must be sent for storage in the standard record storage carton. Cartons (Product #FM0940) are available from Franklin Office Products, or Leonard Bros., by filling out a purchase requisition. Any other type of container will not be accepted. Pendaflex folders must be removed and cartons should not be overfilled.

STEP TWO Place the Records Center green label, Form 5903-R1, (Exhibit II) on the top of each record center carton. Place your name, division and department number on this label. Do not seal lids of cartons with tape. This label can be obtained from the Forms Supplier - Graphics Group by using forms Requisition GG-406.

If a variety of information exists within a record carton, Form 5010-INDX (Exhibit III) can be used to provide information to recall portions of the carton. Completing this form is optional. Upon completion, moisten and affix label portion of form to the inside of the record storage carton. The INDX Form is available from the Forms Supplier - Graphics Group.

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STEP THREE Shipment of cartons to Leonard Bros. Record Center.

At WHB, call ext. 2255 (Building Services Department). This group will pick up cartons and deliver to Shipping Dock where Leonard Bros. will pick up on a daily basis.

Other Toledo facility tenants serviced by the Toledo Mail System should take record cartons to their nearest mail pick-up point. The cartons will be picked up by the mail driver and delivered to WHB Shipping Dock where Leonard Bros. will pick up.

Locations not serviced by the Toledo Mail System, or facilities outside of Toledo, Ohio, should arrange prepaid shipment of cartons to Leonard Bros. using the following address:

Leonard Bros. Record Service Center
324 Chestnut Street
Toledo, Ohio 43604

RETRIEVAL OF CARTON OR FILE

***Effective immediately, a Service Requisition form must be filled out and signed by one of the authorized personnel in your department to retrieve a carton or file from Leonard Bros. Orders by phone constitute an emergency delivery only.**

To retrieve a carton or file from Leonard Bros., your name must be listed on a Leonard Bros. Authorization Form. (Exhibit IV) Call JoAnn Takats, Records Coordinator, for assistance if you want to have your name listed on the form.

Being listed on the Authorization Form allows you to only request cartons from your area. The department number on the Authorization Form must be the same number assigned to the carton being retrieved from storage.

Notification of changes to department number or authorized personnel should be done by contacting Leonard Bros. at 243-7392. Authorization lists will be distributed by O-I Records Coordinator periodically to department managers for review and updating.

To retrieve record cartons, files, or to receive other types of services, such as copying, destruction, etc., a Leonard Bros. Service Requisition must be completed. The Service Requisition is available from Leonard Bros. by calling 243-7392.

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SERVICE REQUISITION FORM INSTRUCTIONS

The Service Requisition allows users to obtain services involving their records from Leonard Bros. (See Exhibit V). This form also is a means of tracking what has been done with records once into the system. All spaces discussed below must be completed.

Date requested, division/department, phone, location/floor, and requestor. Explanation of these spaces are under the Accessions Control Form instructions. For reference, see pages 1 and 2.

R.C. Box Number and Record Description spaces on the Service Requisition Form are the same as those assigned on Part 1 of the Accessions Control Form returned to user by Leonard Bros. after the records were initially placed into storage.

Signature at the bottom of the form must be the authorized personnel who can access records for your department.

Fields of information on the Service Requisition which are not noted above will be completed by Leonard Bros.

After completing the Service Requisition Form, retain Part 2 and mail Part 1 to the Leonard Bros. Record Center by using the intra-company mail system. Do not mail requests by domestic mail services.

Cartons will be delivered by Leonard Brothers to the O-I Receiving Department within 24 hours upon receipt of the Service Requisition.

EMERGENCY DELIVERIES

Emergency delivery, (less than one day turnaround), phone requests can be made by calling Leonard Bros. (419) 243-7392.

The Leonard Bros. Records Clerk will complete a Service Requisition from phone caller's information. Leonard Bros. Record Clerk will deliver the carton directly to the user. At the time of the delivery, user must sign the Service Requisition to satisfy internal control requirements and verify that the service was received.

Emergency service will be charged to user at a rate of $25.00 per call through intra-company billing.

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REFILING OF CARTONS AND FILES

Cartons and files being returned to storage must be accompanied by a newly completed Service Requisition. Fill out top portion of the form, list RC Box Number and "Refile" in the description section of the form. (Refer to Service Requisition Form Instructions.)

All cartons must be returned for refiling or a letter requesting the carton permanently removed from the Leonard Bros. Record system must be sent to Leonard Bros. listing the RC Box Number, description, division number, and location department number.

VIEWING OF RECORDS

The Leonard Bros. Record Service Center at 324 Chestnut Street, Toledo, Ohio, has established a viewing room in their facility where users can have a record carton(s) pulled and reviewed and refiled without worrying about temporary storage.

RECORDS DESTRUCTION PROGRAM

A copy of the Records Retention Destruction Schedule (Exhibit VI) for your department will be distributed to your divisional records coordinators periodically. Your responsibility is to review the destruction listing with your divisional coordinator, to determine whether the documents can be destroyed, or if the retention date should be extended on any carton(s) listed.

Authorization to extend the carton retention period, or approval of destruction, must be given by the Department Manager by signing the destruction schedule in the space provided.

The schedule then can be returned to JoAnn Takats for processing.

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1.4 PLANT RECORD CENTER PROCEDURES - GUIDELINES

The guidelines for plant record center procedures are intended to be only a guideline, or a referral point, for establishing a Records Management program in each Owens-Illinois plant. These guidelines refer to two forms, 5010-INDX and the Leonard Bros. Accessions Control Form (Form #5010-R2 formerly used to send record cartons is obsolete). These are optional forms for plant records storage. The plants may use their own forms; however, we do suggest that the format be similar to Toledo storage procedures and require the same information.

Note: The physical management of Owens-Illinois records is now the responsibility of Leonard Bros. Record Service Center. See Section 1.3, page 4, Toledo Off-Site Record Storage Procedures for details.

I. PREPARING NEW CARTONS FOR STORAGE

1. Complete one Leonard Bros. Accessions Control Log. This form will allow you to list twenty (20) cartons on one form. See Exhibit I, page 22. Follow the instructions on page 4.

2. Form 5010-INDX can be used if carton has varied type of records. See Exhibit III, page 14. Original can be moistened and affixed to the inside lid of the record storage carton. A copy can be filed with the Accessions Control Form.

3. Storage of records in the plant should be:

   a. Easily accessible.

   b. Placed in a dry area. Cartons must not be kept in possible flood areas.

   c. An area with good lighting.

   d. A secured locked area that can only be accessed by authorized personnel only.

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II. RETRIEVING RECORD CARTON OR FILES FROM STORAGE

1. A charge-out record should be created to show where the record or carton was sent and when. See Exhibit VII, page 18, for a sample of an out-card.

2. File the charge-out slips in a tickler file and periodically check to see if records were returned.

III. SUPPLIES - CARTONS, LABELS AND FORMS

1. Standard plain kraft record storage cartons can be obtained through your local stationery supply house.

2. Leonard Bros. Accessions Control Forms can be obtained by calling Leonard Bros. on (419) 243-7392.

3. Record Storage Index (Form 5010-INDX) is used when varied kinds of records are packed in one carton, and is helpful in locating files. The two-part form gives a gummed label for the inside carton lid, and provides a customer file copy to be retained in department. This form can be obtained from Graphics Group Inc., 380 South Erie Street, Toledo, Ohio 43602.

IV. DESTRUCTION OF RECORDS

1. All record storage cartons must have a destruction date assigned. The Accessions Control Form has a description "Scheduled Destruction Date" where destruction dates should be noted.

2. Every carton needs an authorized signature before it can be destroyed. You may wish to retain a 3x5 index card noting the carton numbers which are being destroyed, date carton was destroyed, and an authorized signature. File the card in numerical sequence by box number.

3. Some methods of destruction:

   a. Shredding is recommended for highly confidential material.

   b. A commercial recycler. This kind of service picks up your paper and prepares it for recycling at a paper mill.

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V. ANNUAL FILES REVIEW

1. At a set time annually, all office area files should be reviewed against the official retention schedule. Either the contents of the carton should be destroyed or a new destroy date assigned and printed on the carton.

VI. OWENS-ILLINOIS RECORDS PROGRAM CONTACT

If you have any questions concerning procedures in the movement of record cartons, call JoAnn Takats on 1023.

VII. TOLEDO RECORD CENTER STORAGE

All plant records are maintained at the appropriate plant locations but on special occasions such as a plant closing, records may be stored at Leonard Bros. Record Services Center located in Toledo, Ohio. Use the following address:

Leonard Bros. Record Service Center
324 Chestnut Street
Toledo, Ohio 43604

In order to comply with Leonard Bros. Record Center procedures, you must follow the instructions on page 4, Toledo Off-Site Record Storage Procedures.

EXHIBIT I

ACCESSIONS CONTROL

DEPARTMENT	FLOOR	MANAGER	DIV.	DEPT.	PREPARED BY	DATE	RECEIVED BY	DATE TRANS
✓	✓	✓	✓	✓	✓	✓		

TEMP. BOX NO.	R.C. LOCATION F	A	B	S	S	R.C. BOX #	RECORD TITLE	SCHEDULED DESTR. DATE
✓							✓	✓

CONFIDENTIAL

Leonard Bros. RECORD SERVICE CENTER

324 Chestnut Street
Toledo, Ohio 43604
(419) 243-7392

Send Parts 1 & 2 to RECORD CENTER
RETAIN Part 3

CONFIDENTIAL

EXHIBIT II

RECORD CENTER

GREEN LABEL FORM #5903-R1

RECORD CENTER

Form 5903

Owens-Illinois, Inc.
RECORD MANAGEMENT

EXHIBIT III

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BOX RC-

INSTRUCTIONS

This form is to be used as a second step in entering Form 5010-Record Management label.

Use Index to fully describe contents in box. Then condense information to fit in 40 spaces provided on label.

Do not over fill boxes.

Do not put pendaflex folders in boxes.

Keep bottom copy and attach original to underside of box lid.

When the new box has been processed into storage, the pink customer receipt label (Form 5010) will be returned to you with the record center number that has been assigned to that box.

INDEX

Form 5010-INDX

INSIDE LID LABEL INDEX

CONFIDENTIAL

RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

10-PROPERTY

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
10-ACTIVITY LISTING - MONTHLY & ANNUAL - PLT	1	1
10-ACTIVITY LISTINGS (ANNUAL SUMMARIES)-DIV	2	5
10-ANALYSIS OF FIXED ASSET ADDITIONS - DIV. ACCT'G	1	1
10-APPRAISAL REPORTS (CURRENTLY OWNED FACILITIES)- CORP	2	P
10-APPROVALS - EXPEDITURES	2	2
10-CAPITAL APPROPRIATIONS - PLANNED	1	1
10-CAPITAL EXPEDITURES SYSTEM SOURCE DOCUMENTS	1	1
10-CAPITAL EXPENDITURE LIST - ALL DIVISIONS	3	10
10-CAPITAL PLAN COMPUTER TAPES	1	1
10-CAPITOL EXPENDITURES UNDER 25,000 REPORT - PLT	1	1
10-CHECK LIST & PIN LISTS - PLT	1	1
10-COMPLETED APPROPRIATION REPORTS- DIV & CORP	5	5
10-CONSOLIDATED FIXED ASSET SCHEDULES (A-18, & AA-18)-CORP	5	10
10-CONSTRUCTION CONTRACT EXCERPTS - CORP	3	10
10-CONSTRUCTION IN PROGRESS REPORT	1	1
10-CONSTRUCTION OR EXPANSION PROJECTS - WORKPAPERS-AUDIT	3	10I
10-CONSTRUCTION WORKPAPERS - AUDIT PAPERS	3	20
10-CONTROL NUMBER SHEETS - 901, WORK & SHOP ORDERS	5I	5I
10-DEPRECIATION WORKSHEETS-ACTUAL-TAX/CORP ACCT'G	2	10I
10-DEPRECIATION WORKSHEETS-ANNUAL FIXED CHARGE)-CORP ACCT'	2	2
10-DIRECT CAPITAL CHARGE SHEETS - DIV ACCT'G	1	1
10-DISPOSAL REQUESTS (AE'S) - DIV	2	10

CONFIDENTIAL

RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

10-PROPERTY

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
10-FIXED ASSET PHYSICAL INVENTORY REPORT	1	5
10-FIXED ASSET TRANSFERS & RETIREMENTS - DIV ACCT'G	1	1
10-INFLATION ACCOUNTING WORKPAPERS - CORP ACCT'G	1	8
10-INVENTORIES-PROPERTY, PLT & EQUIP.-FISCHE - CORP ACCT'G	P	P
10-INVENTORY LISTING - PROPERTY, PLANT & EQUIPMENT - PAPER	2	35
10-INVENTORY LISTING, PROPERTY, PLANT & EQUIPMENT - PLT	1	1
10-INVESTMENT CREDIT FILES - CORP ACCT'G	2	10I
10-INVESTMENT TAX CREDIT FILES - PLT	5I	5I
10-MASTER TAG CONTROL SHEETS - PLT	C	P
10-NEAR SYSTEM SOURCE DOCUMENTS - DIV ACCT'G	1	1
10-NINE-O-ONE (901) & APPROPRIATION - DOMESTIC - DIV	3	10I
10-NINE-O-ONE (901) & APPROPRIATION - FOREIGN - DIV	3	3
10-NINE-O-ONE (901) & APPROPRIATION - PLT	5	5I
10-NINE-O-ONE (901) EXPENDITURE APPROVALS	4	12
10-NINE-O-ONE (901) FILES - SUPPORTING PAPERS (CLOSED)	5	5I
10-NINE-O-ONE (901) PURCHASE ORDERS (PLANT)	1	5I
10-NINE-O-ONE (901) STATUS REPORT - MONTHLY - PLT	1M	1M
10-NINE-O-ONE (901-E) STATUS REPORT - COMPLETED - DIV	3	10I
10-NINE-O-ONE (901-E) STATUS REPORT - COMPLETED - PLT	5I	5I
10-POST AUDIT FILE AND WORKPAPERS - PLT	C	5I
10-PROPERTY CARDS - RETIRED ASSETS - PLT	4	4
10-PROPERTY LEDGERS - FINAL YEAR-END (MICROFICHE) - CORP	P	P

CONFIDENTIAL

10-PROPERTY

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
10-PROPERTY LEDGERS - HARD COPY	3	10
10-PROPERTY RECORD - EQUIPMENT TRANSFER IN & OUT	1	1
10-PROPERTY SCHEDULES TAA CO. FORM (MICROFILM) - CORP	P	P
10-RELIFING LISTS - PLANTS	1	1
10-SALES & PURCHASES OF REAL PROP.-MAJOR TRANS. - CORP	1	P
10-SHOP ORDER FILES - COMPLETED & SUPPORTING PAPERS-PLT	1	5I
10-STATUS OF APPROPRIATIONS, 901'S, AND CIP (FPD)	1	1
10-WORK ORDER STATUS REPORT-MONTHLY - PLT & DIV	1M	1M
10-WORK ORDER STATUS REPORT-NON-901,INCLUDING FORM 821-DIV	3	10I
10-WORK ORDERS & SUPPORTING PAPERS-CLOSED (PLANT)	1	5I

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20-PAYROLL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
20-ATTENDANCE RECORD BOOK	1	1
20-AWARDS & MISC. PAYMENT REPORTS	C	5I
20-CHECK REQUISITIONS - SALARY PAYROLL	1	1
20-CHECKS - REGISTER	1	2
20-CHECKS AUXILIARY (FORM 3699)	C	6
20-CLOCK CARDS STATE OF CALIFORNIA ONLY	C	3
20-COMPUTER TAPES TO SUPPORT MONTHLY PAYROLL REPORTS	1	1
20-CONTRIBUTIONS - DEDUCTION REPORTS (OUTPUT)	1	1
20-CONTRIBUTIONS - PLANT DEDUCTION SHEETS (INPUT)	1	1
20-CONTRIBUTIONS - TOLEDO UNITED WAY CARDS	2	2
20-CONTROL BOOKS - SALARY PAYROLL	6	6
20-CORPORATE OFFICER INCENTIVE PLAN (COIP)	10	10
20-CORPORATE PRINT OUT - FORM GC 2533	A	A
20-CREDIT UNION DEDUCTION REPORTS (OUTPUT)	1	1
20-CREDIT UNION DEDUCTION SHEETS (INPUT)	1	1
20-DEATH BENEFITS	1	5I
20-DEDUCTION AUTHORIZATION FORMS	C	AN
20-DEDUCTION NOT TAKEN REPORT	2	2
20-EIS MASTER CORRECTION	1	3
20-EMPLOYEE EARNINGS RECORD-CARDS(THRU 1977)	2	10
20-EMPLOYEE EARNINGS RECORD-FICHE(STARTING 1978 MO)	A	A
20-EMPLOYEE EARNINGS RECORD-FICHE-MASTER RECORD	10	10

CONFIDENTIAL

20-PAYROLL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
20-EMPLOYEE EARNINGS RECORD-FICHE-YEAR-END	10	10
20-EMPLOYEE MASTER LIST	A	A
20-EXERCISE OF STOCK OPTION & SARS	10	10
20-F.I.C.A. EXEMPTION -SICK PAY TIME SLIPS - (FORM 2101)	1	1
20-F.I.C.A. QUARTERLY 941 CONT. SHEETS & SUPPORTING PAPERS	1	6I
20-F.I.C.A. TAXABLE WAGES (FORM 426)	1	6I
20-GARNISHMENTS/COURT ORDERS	2	2
20-HOLIDAY PAY ELIGIBILITY LIST	1	1
20-HOURLY MANHOUR & ACCRUED PAYROLL DATA (FORM 514)	1	3
20-HOURLY PAYROLL INS. CLASSIFICATIONS - WORKMANS COMPEN.	1	1
20-INTERNATIONAL UNION DUES REMITTANCE FORMS	1	1
20-IRS SCHEDULE E	C	10I
20-LABOR DISTRIBUTION RECAPS (FORM CP 5174)	1	1
20-LABOR DISTRIBUTIONS DETAIL TAPES	1	2
20-LABOR DISTRIBUTIONS SUMMARIES - JOURNALS	1	2
20-LABOR REPORT TAPES	1	2
20-MANAGEMENT INCENTIVE PLAN	10	10
20-MERCHANDISE AWARDS	2	5I
20-MOVING EXPENSE - QUARTERLY AUDIT TAPES	3	6I
20-MOVING EXPENSE - YEAR-END MAKEWELL TAPE	3	6I
20-OVERSEAS COMPENSATION REPORT - MONTHLY	C	BD
20-OVERTIME PAY PERIOD PAYMENT REPORT	1	3

CONFIDENTIAL

20-PAYROLL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
20-OVERTIME PAYMENT PERMITS	1	1
20-OVERTIME PAYMENT REPORTS - EXEMPT & NON-EXEMPT - SALARY	1	3
20-OVERTIME PRODUCTION SCHEDULE PREMIUM	1	3
20-OVERTIME SHIFT DIFFERENTIAL	1	2
20-PATENT AWARDS	2	7I
20-PAY TAPES - MASTER REPORT	3	10
20-PAYROLL & PROCESS CONTROL	A	A
20-PAYROLL DEDUCTION CARDS	C	R
20-PAYROLL DEDUCTION REGISTER LISTING (DOE REPORTS)	C	2
20-PAYROLL DISTRIBUTION CHARGES WORKSHEETS	C	5
20-PAYROLL HOURLY RECONCILIATION (FORM 136) - PLANT	1	1
20-PAYROLL HOURLY RECONCILIATION (FORM 136) - TOLEDO	A	10
20-PAYROLL RECEIPTS	C	6
20-PAYROLL REGISTER - COMPLETE YEAR	1	6
20-PAYROLL REGISTER - LAST PAY PERIOD FOR EACH YEAR	C	20
20-PAYROLL REIMBURSEMENT REQUESTS (FORM 799)	1	1
20-PAYROLL REPORTS - UNMATCHED	1M	1M
20-PAYROLL SUMMARY - ANNUAL	C	20
20-PAYROLL SUMMARY - TAPES	C	20
20-PAYROLL TAX ACCRUAL	C	4
20-PAYROLL TIME CARDS	C	2
20-PERFORMANCE AWARD PLAN (PAP)	10	10

CONFIDENTIAL

20-PAYROLL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
20-PRODUCTION INCENTIVE PLAN	2	3
20-PROXY REPORT	10	10
20-QUOTA BONUS	1	1
20-RAPS CONTROL TAPES	2	5I
20-RAPS HISTORY FILES	C	BD
20-RATE FILE - MASTER	1	1
20-RELOCATION EXPENSE FILES	1	7I
20-RELOCATION REAL ESTATE FILES	1	7I
20-RELOCATION VAN FILES	1	7I
20-SALARY HISTORY SHEETS - INDIVIDUAL	C	U
20-SALARY POPULATION REPORT	10	10
20-SALES BONUS	2	3
20-SPECIAL PAYROLL PAYMENTS AUTHORITY (FORM 201)	C	2
20-STATE UCI REPORTS	1	4
20-STATE UNEMPLOYMENT TAX	C	6
20-SUGGESTION AWARDS	2	5I
20-SUPPLEMENTAL PAY	10	10
20-TAXABLE WAGES - JOURNAL SUPPORT (EDUCATIONAL ASSIST.)	1	2I
20-TIME SLIPS - SALARY FULLTIME	1	3
20-TIME STUDIES - SUPPORTING INCENTIVES IN EFFECT	C	AF
20-TIME STUDIES - SUPPORTING OBSOLETE INCENTIVE PLANS	C	2
20-TRAVEL EXEMPTION - TOLEDO CITY TAX	2	4

CONFIDENTIAL

RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

20-PAYROLL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
20-UNCLAIMED WAGE RECORDS	2	5I
20-UNEMPLOYMENT CLAIMS	2	4
20-UNION DUES DEDUCTION REPORT	1	1
20-VACATION PAY ACCRUAL REPORT	3	7
20-VACATION PAY REQUEST FORMS	1	1
20-W-2 AUDIT TAPES (SALARY)	5	10
20-W-2 LIST OF ANNUAL EARNINGS (TABULATED TAPE)-HOURLY	2	10
20-W-4 WITHHOLDING FEDERAL EXEMPTION CERTIFICATES	C	T1
20-WAGE RATE & TERMINATION CARDS	A	A
20-WEEKLY SUMMARY EARNINGS REPORT	C	2

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30-BANKING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
30-AUTHORIZATION FOR CASH ADVANCES	A	A
30-BANK ACCOUNT FILES - CLOSED	3	3
30-BANK ACCOUNTS SIGNATURE AUTHORIZATIONS	A	A
30-BANK AUTHORIZATION & CORRES.	A	A
30-BANK DEPOSIT SLIPS	1	1
30-BANK LEDGERS	2	5
30-BANK LEDGERS - MONTHLY PENCIL COPIES "GREEN BACK"	3	3
30-BANK RECONCILIATIONS,BANK STATEMENTS & SUPPORTING PAPER	1	5
30-BANK TRANSFER DIAGRAMS - DAILY	1	1
30-CASH BOOKS, RECEIPTS & DISBURSEMENTS	1	1
30-CHECK STUBS - PLANTS	3	3
30-CHECKS - PAID - CANCELLED OR VOIDED	1	3
30-HOURLY PAYROLL FUNDING RECORDS	1	1
30-LOCK BOX CHECKS	5M	1
30-MISCELLANEOUS CHECKS AND REMITTANCES	5M	1
30-SELF REIMBURSEMENT REQ.(PC, PR, FRT - MELLON CHECKS)	2	2
30-STOP PAYMENT ORDERS	1	1

CONFIDENTIAL

40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-A.F.G.W.U. WAGE CONFERENCE GBBA	6	10
40-ABSENCE/ATTENDANCE RECORDS	C	3
40-AFFIRMATIVE ACTION PROGRAM	1	2
40-ALIEN TRAINEES - REGARDING IMMIGRATION TAX HANDLING	2	5
40-ANNUITANT INDIVIDUAL FILE -SERVICE	5	P
40-ANNUITANT REGISTERS - MONTHLY	A	A
40-ANNUITANT REGISTERS - YEAR END	1	P
40-ANNUITANT SIGNATURE CARDS	C	P
40-APPLICATION FOR EMPLOYMENT - ACTIVE	C	T3
40-APPLICATION FOR EMPLOYMENT - INACTIVE	1	1
40-APPLICATION LOG	C	AP
40-APPLICATIONS & CONTRIBUTORY PLAN REFUSALS	P	P
40-APPRENTICESHIP RECORD	C	2*
40-ARBITRATION CASES	10	P
40-AUDIO-METRIC TESTING RECORDS	C	BD
40-BIRTH RECORD	C	P
40-CAREER PROFILE	C	P
40-CENSUS AND SURVEYS	3	3
40-CHANGE OF ADDRESS	A	A
40-CHANGE OF BENEFICIARY REQUEST	C	P
40-CLAIMS - GROUP INSURANCE - SETTLEMENT OF CLAIMS	2	6
40-CLAIMS - PAID - (PERSONNEL DEPT)	2	6

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40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-CLAIMS - PERMANENT TOTAL DISABILITY	2	6
40-CLAIMS - RETIREE	2	6
40-COLLEGE RECRUITING REPORTS BASIC DATA	2	2
40-COMPENSATION GENERAL FILES	2	P
40-CONSULTANTS & COURSES OUTSIDE TRAINING MATERIAL	A	A
40-CONTRACTS - AETNA - O-I	25	25
40-CONTRACTS - PRIVATE TRUCKING OPERATING	A	A
40-CONTRIBUTIONS - MATCHING GIFTS	5	5
40-CONTROL SHEETS	1	1
40-DEATH RECORDS	1	3
40-DEPARTMENT OF LABOR BUREAU OF STATISTICS	A	A
40-DEPARTMENT REFUSAL SLIPS	C	3
40-DISABILITY - PENDING	C	X6
40-DISABILITY CLAIM - LONG-TERM GROUP INSURANCE;	5	6
40-EDUCATION & TRAINING RECORDS	C	3
40-EDUCATION ASSISTANCE PLAN	2	5I
40-EEO CHARGES	C	AP
40-EEO REPORTS	C	2*
40-EMPLOYEE BENEFIT SYSTEMS	A	T6
40-EMPLOYEE MEDICAL RECORDS	C	S
40-EMPLOYEE PROFILE & CAREER DOSSIER	A	A
40-EMPLOYMENT AGREEMENTS	C	T

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40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-EMPLOYMENT PROGRESS REPORT (MOST RECENT ONLY)	C	T3
40-EQUAL PAY CORRESPONDENCE	5	7
40-EVALUATION - CORP. OFFICERS	A	A
40-EVALUATION - JOB GUIDELINES	A	A
40-EVALUATION - PLANS - COPIES	A	A
40-F.I.C.A. EXEMPTION RECORD	2	4
40-FOREIGN AFFILIATE PLANT/PEOPLE HISTORY	C	BD
40-FORMER EMPLOYEES ON RETAINER BASIS REPORTS	5	5I
40-FRINGE BENEFIT REPORTS	P	P
40-FUNERAL ABSENCE AUTHORIZATIONS	1	1
40-GRIEVANCE FILES	P	P
40-GROUP INS. BOOKLET	A	A
40-GROUP INS. CONTROL	1	1
40-GROUP INS. COSTS	3	3
40-GROUP INS. DESCRIPTION OF POLICY	25	25
40-GROUP INS. FEDERAL AND STATE DISCLOSURE	5	25
40-GROUP INS. RECORDS CANCELLATION REPORT-RETIREE ONLY	1	1
40-GROUP INS. RECORDS CLAIMS (AFTER PAID)	C	6
40-GROUP INS. RECORDS EVIDENCE OF INSURABILITY STATEMENT	C	T6
40-GROUP INS. RECORDS ISSUED REPORT - RETIREE INS. ONLY	1	1
40-GROUP INS. REPORT	1	1
40-GROUP INS. SENIOR EXECUTIVE	25	25

CONFIDENTIAL

40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-GROUP INS. TAPES	C	3
40-GROUP INS. UNEXPIRED SCHEDULES	C	3
40-GROUP INS. VOLUNTARY ACCIDENT	2	2
40-HIRING LOG	C	2*
40-HISTORY CARD - (FROM PEP)	C	P
40-HISTORY CARD - ACTIVE, TERMINATED	P	P
40-HISTORY CARD - GROUP INSURANCE - ACTIVE	2	6
40-INCENTIVE PROGRAM - DATA TAPES	2	2
40-INCENTIVE PROGRAM - MGT.PROGRAM	P	P
40-INCENTIVE PROGRAM - OFFICERS BONUS PLAN	A	A
40-INCENTIVE PROGRAM - SALES	C	P
40-INCENTIVE PROGRAM - SALES BY DIVISION	C	P
40-INTERVIEW EVALUATIONS	C	3
40-JOB BID SHEETS	2	2
40-JOB POSTINGS & AWARD NOTICES	C	5
40-JOB SPECIFICATION/JOB DESCRIPTIONS	A	A
40-JOB SPECIFICATIONS - DIVISIONAL	A	A
40-JOB SPECIFICATIONS - FOREIGN	A	A
40-JOB SPECIFICATIONS - HOURLY & SALARY - ALL DIVISIONS	A	A
40-JOB TRAINING MATERIAL	A	A
40-LABOR CONTRACTS	3	P
40-LABOR NEGOTIATIONS - COPIES OF CONTRACTS	C	B

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40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-LABOR NEGOTIATIONS, WAGE CONFERENCE & MEETINGS	3	5
40-LAYOFF NOTICES	C	3
40-LEAVE OF ABSENCE NOTICES	C	3
40-LETTERS OF REFERENCE	C	AE
40-LOG OF JOB OFFERS REFUSED	C	2*
40-MANAGEMENT MANPOWER FORECASTING PROJECT	1	1
40-MEDICAL FOLDER - RETIREES	A	D2
40-MEDICAL HISTORIES - ACTIVE EMPLOYEES	30	30
40-NATIONAL ALLIANCE OF BUSINESS (NAB)	A	P
40-NEGOTIATION FILES	3	10
40-OFCCP - DESK AUDIT DATA	C	AO
40-OFCCP - LETTER INDICATING "IN COMPLIANCE"	C	BD
40-OFCCP - ON-SITE COMPLIANCE REVIEW DATA	C	AO
40-OUTPLACEMENT FILE	1	1
40-OVERSEAS TRANSFER POLICIES	A	A
40-P & DR DEVELOPMENT REVIEW SUPERVISORS SUMMARY	A	A
40-P & DR DEVELOPMENT REVIEW WORKSHEETS	C	3
40-P & DR PERFORMANCE/IMPROVEMENT PLAN	C	3
40-P.E.P. (PERSONNEL EMPLOYEE PROFILE) CORRES. & REPORTS	1	3
40-P.E.P. FORM (EXCEPT HISTORY CARD)	C	V
40-PAMPHLETS - GROUP INSURANCE	A	A
40-PENSION REFORM LAW (ERISA)	2	6

CONFIDENTIAL
RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-PERSONEL, SALARY STRUCTURE, SPCR, EMPLOYEE FILE	A	A
40-PERSONNEL - EMPLOYEE FILES BY BRANCH OFFICES	C	U
40-PERSONNEL - INFORMATION	A	A
40-PERSONNEL CORRES. FILES - OVERSEAS PERSONNEL	T1	T1
40-PERSONNEL CREDIT DEPT.	A	A
40-PERSONNEL EMPLOYEE PROFILE (PEP)	2	2
40-PERSONNEL HISTORY FILE - CURRENT-MALE&FEMALE	A	A
40-PERSONNEL HISTORY FILE - MED. HIST. TERM.	1	6
40-PERSONNEL HISTORY FILE - SUBJECT	X	X
40-PERSONNEL HISTORY FILE - TERM.-MALE &FEMALE	1	6
40-PERSONNEL INVENTORY	C	P
40-PERSONNEL INVENTORY APPRAISAL PLANT & TOLEDO	A	A
40-PERSONNEL POLICY - GENERAL MANAGERS	A	A
40-PERSONNEL RECORDS - ACTIVE & INACTIVE	A	A
40-PLANT MANAGER SITUATION REPORT	3	3
40-PLANTS - CLOSED	P	P
40-PRE-EMPLOYMENT PHYSICAL EXAM	C	BD
40-PROGRESS RECORD INDIVIDUAL	C	T3
40-PROMOTION LOG	C	2*
40-RECORD CARDS - GROUP INSURANCE - ACTIVE	15	15
40-RECORD CARDS - GROUP INSURANCE - RETIREES	A	D2
40-RECORDS OF DISCIPLINARY ACTION	C	T3

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40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-RECRUITING - ADVERTISING INFORMATION	1	1
40-RECRUITING - CLUSTER SCHOOLS	BD	BD
40-RECRUITING - COLLEGE VISITS	A	P
40-RECRUITING - PROGRAMS	BD	BD
40-RECRUITING - SCHOLARSHIP FINANCIAL AID	BD	BD
40-RECRUITING - SURVEYS	5	5
40-REFERENCE CHECKS	1	1
40-REPORTS - SITUATION (EMPLOYEE HEADCOUNT FOREIGN)	3	15
40-RESUME - ACTIVE	1	1
40-RESUME - INACTIVE	6M	6M
40-RETIREE DECEASED, CLAIM & DEATH BENEFIT	2	6
40-RETIREE INSURANCE - INFORCE TAPES	1	1
40-RETIREE INSURANCE TABULATIONS - CANCELLED	1	1
40-RETIREE INSURANCE TABULATIONS - CLAIM PAYMENT	2	6
40-RETIREE INSURANCE TABULATIONS - ISSUED	1	1
40-RETIREMENT PLAN MERGERS	P	P
40-RETIREMENT SALARIED EMPLOYEE BENEFITS	3M	3M
40-RETIREMENT STATE & FEDERAL DISCLOSURE REPORTS	P	P
40-SALARIED PERSONNEL REQUISITIONS	3	3
40-SALARY POLICIES - STANDARD (HISTORICAL)	5	P
40-SALARY RANGE SCHEDULES (HISTORICAL)	5	P
40-SERVICE - AWARD - JEWELRY	A	A

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40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-SERVICE DATE AFFIDAVITS & ADJUSTMENTS	P	P
40-SERVICE RECORD	1	P
40-SITUATION & HEADCOUNT REPORTS - PLANT	2	2
40-STOCK PURCHASE PLAN - ACCT. REGISTER	P	P
40-STOCK PURCHASE PLAN - APPLICATION	C	D2
40-SUGGESTION SYSTEM FILE - ADOPTED	2	7
40-SUGGESTION SYSTEM FILE - REJECTED	2	7
40-SUPERVISOR 20-DAY PROGRAM REPORTS - FORM 1770	A	2
40-SURETY BONDS	C	BE
40-SURVEYS - COMPENSATION - INTER-COMPANY	3	3
40-SURVEYS - COMPENSATION - NATIONAL INDUSTRIAL CONF. BOAR	3	3
40-SURVEYS - WAGE & SALARY	3	3
40-TAPES - HOURLY EMPLOYEE	2	2
40-TERMINATED SALARY EMPLOYEES	2	4
40-TERMINATION LOG	A	2*
40-TERMINATION NOTICES	A	3
40-TRAINEE FILES	1	1
40-TRAINING - EMPLOYEE INFORMATION	A	A
40-UNEMPLOYMENT COMPENSATION DOCUMENTS	C	3
40-UNION CARDS - DUES CHECK-OFF AUTHORIZATION	C	T
40-UNION CONTRACTS - COPIES	3	3
40-UNION CORRESPONDENCE	P	P

CONFIDENTIAL
RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

40-PERSONNEL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
40-UNION CORRESPONDENCE RECORDS	2	2
40-UNION GRIEVANCES - COPIES	3	3
40-UNION MEETING MINUTES	3	3
40-UNION NEGOTIATIONS (MAILOGRAMS)	1	1
40-WAGE ATTACHMENTS & GARNISHMENTS	C	AC
40-WORKERS COMP. CLAIMS (FINANCIAL STATUS REPORTS)-PAPER	1	1
40-WORKERS COMP. CLAIMS (FINANCIAL STATUS REPORTS)-TAPE	C	10
40-WORKSHEETS - GCMI - GBBA	3	P

CONFIDENTIAL

50-SAFETY,SECURITY,PLT PROTECTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
50-ACCEPTANCE QUALITY LEVEL (AQL)-SAMPLING PLANS	A	A
50-ACCIDENT RECORDS COMPENSABLE ACC. REPORT-NOT LOST	C	10
50-ACCIDENT RECORDS LOST TIME ACCIDENT REPORT	C	10
50-ACCIDENT RECORDS SUPERVISORS REPORT OF ACCIDENT	C	10
50-AIR PERMITS - ALL EMISSIONS MEASUREMENTS	C	BB
50-AIR PERMITS - EMISSION CONTROL EQUIP. MAINTENANCE RECOR	C	2
50-AIR PERMITS - MONITORING DEVICES	C	2
50-AIR PERMITS - ORIGINAL APPLICATIONS & DIAGRAMS	C	AX
50-AIR PERMITS - RECORDS OF DATE & LENGTH OF START-UP	C	2
50-AIR PERMITS - RECORDS OF SHUTDOWN OR MALFUNCTIONS	C	AX
50-AIR PERMITS - RENEWAL NOTICE & PAYMENT VERIFICATIONS	C	AX
50-AIR PERMITS - VARIANCE RECORDS	C	AX
50-ASBESTOS DEMOLITION & RENOVATION DISPOSAL RECORDS	C	3
50-ASBESTOS DEMOLITION & RENOVATION NOTIFICATION RECORDS	C	3
50-ASBESTOS USAGE & WAIVERS	C	AX
50-EMPLOYMENT EXPOSURE RECORDS	C	BD
50-ENVIRONMENTAL CONTROL - STACK EMMISSIONS	2	2
50-GOOD MFG REGULATIONS (29CFR-S211)-DRUG COMPONETS, CLOS.	4	4
50-INSPECTIONS - CRANES, CRANE ROPES, CRANE HOOKS	C	AX
50-INSPECTIONS - FIRE EXTINGUISHERS	C	AX
50-INSPECTIONS - MANLIFTS	C	AX
50-INSPECTIONS - POWER PRESSES	C	AX

CONFIDENTIAL

50-SAFETY,SECURITY,PLT PROTECTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
50-INSPECTIONS - RESPIRATORS	C	AX
50-INSPECTIONS - ROPES USED ON DERRICKS	C	AX
50-INSPECTIONS - WELDING EQUIPMENT	C	AX
50-NOISE ABATEMENT (PLANT)	P	P
50-NPDES - INSTRUMENTATION & MAINTENANCE RECORDS	C	3
50-NPDES - ORIGINAL PERMIT APPLICATION	C	3
50-NPDES - ORIGINAL RECORDINGS FOR ANY CONT. MONITORING	C	3
50-NPDES - SAMPLING & ANALYTICAL RECORDS	C	3
50-OSHA (FORM 101) SUPPLEMENTARY REC. OF OCCUP. INJ. & ILL	C	5
50-OSHA (FORM 200) LOG & SUMM. OF OCCUP. INJ. & ILL.	C	5
50-PCB - INVENTORY	C	AZ
50-PCB - QUARTERLY EQUIPMENT INSPECTION (TRANSFORMERS)	C	AZ
50-PCB - RECORDS OF ANY & ALL EQUIPMENT LEAKS	C	AZ
50-PLANT SAFETY FILES	1	6
50-PLASTIC WASTE MANAGEMENT (ANTI-POLLUTION)	1	2
50-PRETREATMENT REQUIREMENTS - RECORDS OF MONITORING DATA	C	5
50-RCRA-ANNUAL REPORTS	C	3
50-RCRA-EXCEPTION REPORTS	C	3
50-RCRA-HAZARDOUS WASTE ANALYSES	C	3
50-RCRA-INSPECTION RECORDS	C	3
50-RCRA-MANIFEST - COPY SIGNED BY FACILITY REC'G THE WASTE	C	3
50-RCRA-MANIFEST - COPY THAT GENERATOR SIGNS	C	3

CONFIDENTIAL

50-SAFETY,SECURITY,PLT PROTECTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
50-RCRA-TRAINING & EDUCATION	C	3
50-RCRA-TSDF-CLOSURE COST	C	AX
50-RCRA-TSDF-GENERATOR RECORDS	C	AX
50-RCRA-TSDF-MONITORING & TESTING DATA	C	AX
50-RCRA-TSDF-OPERATING RECORDS	C	AX
50-SAFETY CLOSURES POISON PREVENTION PACKAGING ACCOUNT	3	3
50-SPCC - INSPECTION RECORDS	C	3
50-SPCC - TANK INTREGRITY TEST RESULTS	C	3
50-SUPERFUND - HAZARDOUS WASTE SITE NOTICICATION	C	50
50-TSCA-ADVERSE EFFECTS TO HEALTH OF EMPLOYEES	C	AW
50-TSCA-COMPLAINTS & ALLEGATIONS OF PERSONAL INJURY	C	BC
50-VISTORS PASS	C	2
50-WORKMENS COMPENSATION REPORT	2	10

CONFIDENTIAL

60-FINANCE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
60-ANNUAL REPORTS - O-I - WORKPAPERS & BACKUP	P	P
60-ANNUAL REPORTS - OUTSIDE CO.	3	3
60-ANNUAL STOCKHOLDERS MTGS. - AGENDAS	1	2
60-ANNUAL STOCKHOLDERS MTGS. - ATTEN. CARDS & RELATED MTLS	1	1
60-ASSET PRESENTATIONS - RETURNS	4	4
60-BOARD REPORTS	1	3
60-BUSINESS ANALYSIS FILES	2	2
60-CASH WORKPAPERS FOR PURCHASE OF PREFERRED SHARES	8	8
60-CASUALTY INSURANCE	P	P
60-CHAIRMAN REPORTS	2	4
60-COMPARATIVE PERFORMANCE & OPERATING STATISTICS	1	1
60-COMPETITOR ANALYSES	3	3
60-CORPORATIONS TOP 200	C	2A
60-DIVISIONAL TRUCKING DISTRIBUTION	1	3
60-F.B.A. REPORTS	5	15
60-FINANCIAL INFORMATION - V.SO., S.R.&N - YEAR END	C	BD
60-FINANCIAL PERFORMANCE CHARTS AND ANALYSIS	2	2
60-FINANCIAL REPORTS & STRATEGIC PLANS-AFFILIATE-MO.	2	7
60-FINANCIAL STATISTIC - PRIMARY AREA MONTHLY (AMR)	2	5
60-FINANCIAL STATISTICS	C	3
60-FOREIGN OPERATIONS ANALYSIS	C	10
60-FOREIGN OPERATIONS WORKSHEET	C	5

CONFIDENTIAL

60-FINANCE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
60-FORESTRY EXPERIMENTAL AREA RECORDS	1	P
60-INVESTMENT SHORT TERM CORRES., NOTIFICATION & SUMMARY	2	2
60-INVESTMENT STUDY RETURN	4	4
60-LEASE SUMMARY FILE	A	7I
60-LIABILITIES TO & CLAIMS ON FOREIGNER	6	6
60-MANAGEMENT C.R. CONTROL REPORTS	1	1
60-MAP REPORTS	1	3
60-NATIONAL PETRO FILES	7	7
60-NEW YORK STOCK EXCHANGE REPORTS	1	3
60-NOTES - ACCOUNT	A	6I
60-NOTES - ACTIVITY	6M	6M
60-NOTES - CONTROL & REPORTS	1	1
60-NOTES - PAYABLE - AFTER PAYMENT	C	AM
60-NOTES - RECEIVABLE - AFTER PAYMENT	C	AM
60-OVERSEAS AFFILIATE REPORT - GENERAL MGR.	3	5
60-OVERSEAS AFFILIATES DATA	5	7
60-PENSION TRUST FUND	2	10
60-PROGRAM GUIDELINES POLICIES & PROCEDURES	A	A
60-PROGRAM SOURCE DECK FOR ORDER ENTRY	1	1
60-PROPERTY INSURANCE	5	5
60-PROSPECTUSES - BOOKLETS	1	P
60-PROXY CARDS - ISSUE	C	AU

CONFIDENTIAL

RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

60-FINANCE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
60-PROXY CARDS - NO ISSUE	1	1
60-PROXY STATEMENTS	P	P
60-QUOTA REVISIONS	P	P
60-RECORD OF SUBSCRIPTION TO NEW ISSUE OF STOCK	1	P
60-REPORTS (SPECIAL) TO VARIOUS NOTEHOLDERS	C	AQ
60-SAVINGS BONDS - EMPLOYEE - CONTROL FORMS	1	1
60-SAVINGS BONDS - EMPLOYEE - DEPOSIT SLIPS	1	1
60-SAVINGS BONDS - EMPLOYEE - INSURANCE - LETTERS WITH BON	1	1
60-SAVINGS BONDS - EMPLOYEE - RECONCILIATIONS	1	1
60-SECURITY EXCHANGE COMMISSION REPORT	5	30
60-STATISTICAL REPORTS - MONTHLY	2	2
60-STATISTICAL REPORTS - YEARLY	5	5
60-STOCK CERTIFICATES - CANCELLED	1	BD
60-STOCK LEDGERS	3	P
60-STOCK TRANSACTION	2	2
60-STOCKHOLDER LISTS	2	2
60-TRADE NOTES RECEIVABLES	C	P
60-TRANSFER SHEETS	5	P
60-USE & OCCUPANCY INSURANCE DATA	C	5

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-ART IDEA FILE - CLIPPINGS	15	15
70-ART WORK & REFERENCE BOOKS - LIBBEY	A	A
70-ART WORK - CUSTOMER	BD	BD
70-ART WORK FOR SLIDE PRESENTATIONS	5	5
70-ASSEMBLIES & COMPONET PARTS FOR BC-3 MACHINE	A	A
70-ASSEMBLY & PARTS LIST - MISC.	A	A
70-B-W & NMER 703 - ORIGINALS	C	H
70-BC-11 FILE - SPECIAL MACHINE DEVELOPING	2	4
70-BEKUM FILE - CORRES. & PRINTS	1	3
70-BEKUM MACHINE - RECORDS OF JOB FILES	3	3
70-BEKUM MACHINE - TRAINING MATERIAL - MASTER MANUALS	A	A
70-BILLS OF MATERIAL (BOOKS)	A	A
70-BOTTLE DRAWINGS WITH MOLD NO.	C	H10
70-BOTTLE DRAWINGS WITH MOLD NO.-RETURNABLE & PLASTI-SHIEL	P	P
70-BOTTLE FINISHES DATA-REFERENCE MATERIAL	7	7
70-BOTTLE PRINTS (COPIES) RELATED TO DESIGNS	1	1
70-BROCHURES & CORRES. WITH VENDOR ON EQUIPMENT COST	2	2
70-BUSINESS OBJECTIVES & PLAN	3	3
70-C.C.S. LABORATORY TESTING PROJECTS	10	25
70-CARDS - CHANGE NOTICE (DESC. OF CHANGE IN DRAWINGS)	C	F
70-CARTON ASSEMBLY & REFERENCE REPORTS	A	A
70-CHECKS - MOLD & CONTAINER - PRINTS & CORRES.	C	F

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-COMMENTS - DESIGNS	3	3
70-CORRUGATED PACKAGING "BACK TO BASICS"	4	4
70-CORRUGATED SPECIFICATION CARDS	7	7
70-COST REPORTS - MONTHLY	1	1
70-CROSS REFERENCE OF CURRENT ITEMS (CARD INDEX FILE)	BD	BD
70-CUSTOMER ART WORK	BD	BD
70-CUSTOMER CARDS -ORIGINAL - ALL WORK PERFORMED FOR CUST.	C	F
70-CUSTOMER CHARTS & PRINTS WITH CORRES.	C	F
70-CUSTOMER DATA & INFORMATION	3	5
70-CUSTOMER DRAWING REQUEST REGISTER	1	1
70-CUSTOMER ENGINEERING ACCOUNTS	3	4
70-CUSTOMER ENGINEERING MACHINE PROJECTS	C	F
70-CUSTOMER FILES - CLOSED	C	H
70-CUSTOMER FILES - DEALING WITH COST (CLOSED)	1	6
70-CUSTOMER PACKAGING SERVICE REQUESTS - 1591	2	2
70-CUSTOMER PLANT LAYOUT	4	4
70-CUSTOMER PRINTS	2	2
70-CUSTOMER REQUEST FOR NEW DESIGN OF CONTAINER	1	6
70-DATA MACHINE & EQUIP. - MISC.	A	2
70-DEFLASHING TOOL DESIGN FILE (PRIOR YEARS)	2	7
70-DEFLASHING TOOL FILE PRINTS - CORRES.WITH MOLD NUMBER	2	7
70-DESIGN COMMENTS	3	3

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-DESIGN PKG. MINUTES (1967 TO PRESENT)	P	P
70-DESIGN PROJECT FILE	A	A
70-DETAIL DRAWINGS NUMBER & SPEC.	C	F
70-DETAILED ASSEMBLY DRAWINGS	A	A
70-DEVELOPMENT PROJECTS - OPEN & CLOSED	A	20
70-DIE, MOLD & ROLL TEXTURING (SAMPLES)	A	A
70-DRAWINGS & PARTS LIST FOR BC-1 BLOW MOLDING MACHINE	2	7
70-DRAWINGS - #150	1M	1M
70-DRAWINGS ON BUILDINGS SYSTEMS	C	W
70-DRAWINGS ON PROPRIETORY EQUIPMENT	P	P
70-ENGINEERING MATERIAL OUTLINING POLICIES	C	P
70-ENGINEERING POLICIES	A	A
70-ENGINEERING PROJECT INFO - FILES & REPORTS	5	5
70-EQUIPMENT (SPECIAL) PRINTS	3	3
70-EXPANSION FILES - PLANT	C	AX
70-FACILITIES STUDIES	10	10
70-FILM LIBRARY	P	P
70-FINISH EQUIPMENT TRACINGS	C	F
70-FINISH STANDARDIZATION & FINISH BULLETINS	C	BD
70-FOOD & DRUG ADMINISTRATION CORRESPONDENCE	10	15
70-FORMS - FINISHED LAYOUTS	BD	BD
70-FORMS - MODEL ORDER FORMS	1	1

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-FORMULATION RECORDS	A	A
70-FRANCHISE CUSTOMER DESIGN FILE - INACTIVE	15	15
70-FRANCHISE DESIGN - OBSOLETE NATIONAL ACCOUNTS	C	Z
70-FRANCHISE DESIGN CARD RECORD	C	F
70-FUEL STATISTICS	5	5
70-GLASS SHAPES & PART NUMBERS FOR MACHINERY ASSEMBLY	20	20
70-GRAPHS & CHARTS	5	5
70-INFORMATION & DATA ON TOOLING	C	F
70-INFORMATION FILE - MACHINERY	20	20
70-INJECTION MOLD COST REFERENCE	A	A
70-INTERNATIONAL OPEN & CLOSED PROJECTS	A	20
70-INVENTION RECORDS	20	20
70-INVENTORY RECORDS OF BLOW MOLD	A	A
70-LAB FORMS	1	1
70-LABORATORY TEST REPORTS	1	2
70-LAYOUT SHEET	A	A
70-LAYOUT TRACINGS - ORIGINAL	2	2
70-MACHINE & BLOW MOLD REFERENCE FILES	3	3
70-MACHINE DESIGN PROPOSALS	5	5
70-MACHINE HISTORY FILE	C	AX
70-MACHINE SHOP WORK REQUISITION RECORDS	A	A
70-MACHINERY EQUIPMENT & PARTS CATALOG	10	10

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70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-MACHINES & EQUIPMENT - PHOTOS	A	A
70-MACHINES & PLANT TECHNICAL DATA	2	7
70-MACHINES IN FIELD INFO.	A	A
70-MACHINES PART LIST	A	A
70-MACHINES PRINTS	A	A
70-MACHINES PRINTS - OLD	X	X
70-MACHINES REBUILD INFORMATION	C	10
70-MAINTENANCE REQUESTS (COPIES)	1	1
70-MANUFACTURING & ASSOC. COST REPORTS	1	6
70-MANUFACTURING CATALOGS	A	A
70-MASTER DRAWINGS	A	A
70-MEETING NOTES - ENGINEERING MANUFACTURING - MONTHLY	C	AB
70-MOLD BLOW MOLD & MATERIAL SUPPLIES CORR.	A	A
70-MOLD CARDS ACTIVE & SCRAPPED	C	BD
70-MOLD CHARTS, PRINTS WITH CORRES.	C	F
70-MOLD CORR., PROJECTS, BUDGETS, MACHINERY	A	A
70-MOLD EQUIPMENT DRAWINGS FILES	C	H
70-MOLD NUMBERING BOOK	A	A
70-MOLD PRODUCT INQUIRIES (MPI)	3	3
70-MOLD PRODUCT INQUIRIES PRINTS	5	5
70-MOLDS - CLOSED	6M	6M
70-MOVE ORDER - EQUIPMENT (COPIES)	1	1

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70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-NEW ITEM DEVELOPMENT RECORDS	3	3
70-NSDA CONVENTION BOTTLE DESIGN (ORIGINALS)	10	10
70-OPERATING DATA SHEETS	A	A
70-OPERATING ON EXTRUDER POLYETHELENE FILES	3	3
70-ORDER REPORTS - OPEN	1	2
70-OUTSIDE SUBMISSION INVENTIONS	5	5
70-P.I. PROJECTS ON SPECIFICATIONS FOR PRICING	2	2
70-P.V.C. CORRES.	X	X
70-PANTOGRAPH DRAWINGS & FILM	A	A
70-PART LIST & ASSEMBLY DRAWING OF BC-3 STANDARDIZATION	A	A
70-PART LIST & ASSEMBLY OF BC-3 MACHINE (ORIGINALS)	X	X
70-PAST PROGRESS REPORTS	1	3
70-PASTE-UP MASTERS	A	A
70-PERFORMANCE COMMENTS - EXPECTED	3	3
70-PLANT LAYOUTS	2	2
70-PLANT OPERATION FILES	3	3
70-PLANT SYSTEMS ON FLAME TREATING	3	3
70-PLANTS - PRINTS OF PLANT SYSTEM	A	A
70-PLANTS - PROJECT FILES & MATERIALS	A	A
70-PLANTS - SET-UP	2	2
70-PLASTIC MACHINES-BROCHURES & TECHNICAL DATA	A	A
70-PLASTIC PALLETS & SPIN OPAL WARE EVALUATION	3	6

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-PLASTICIZED MATERIAL	5	5
70-POLY VINYAL CHLORIDE (P.V.C.) MACHINE - PLANT	3	3
70-POLY VINYAL CHLORIDE (P.V.C.) MACHINE OPERATING	3	3
70-PRINTING DIE FILES	2	2
70-PRINTS & CERTIFIED PRINTS	C	F
70-PRINTS & PARTS LISTS	A	A
70-PRINTS - GERMAN CONFIDENTIAL	3	3
70-PRINTS - SKETCHES	A	A
70-PRINTS CHANGE NOTICES	X	X
70-PRODUCTION ARTICLE PRINTS	1	1
70-PROGRESS REPORTS - MONTHLY	1	1
70-PROJECT & TECHNICAL INFO.	1	4
70-PROJECT AUTHORIZATIONS	2	7
70-PROJECT CODE BOOK	P	P
70-PROJECT COST REPORT (TAPES)	A	A
70-PROJECT COST REPORT YEAR-END	3	7I
70-PROJECT DATA & INFORMATION	3	18
70-PROJECT EXPERIMENTAL NOTEBOOKS	C	AB
70-PROJECT FINAL REPORTS - MOLD PREFIX	2	P
70-PROJECT LABOR CARDS (COPIES)	2	2
70-PROJECT LABOR SHEETS - MONTHLY REPORT	1	1
70-PROJECTS LIBBEY ENGINEERING REPORTS	20	20

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-PROJECTS MISCELLANEOUS ASSISTANCE	10	10
70-PROJECTS PATENTABLE DATA - IF NOT PATENTED	2	2
70-PROJECTS PATENTABLE DATA - IF PATENTED	C	K
70-PROJECTS SELECTED REPORTS - TESTS	2	2
70-R & D MEETINGS	3	3
70-R & D PROJECTS	2	7
70-RECOMMENDATION OR REQUEST TO INDUSTRIAL ENGIN. FORM 169	C	2
70-REQUESTS - INDUSTRIAL ENGINEERING 1699S	2	5
70-SAMPLE CARTONS - CUSTOMER	A	A
70-SAMPLE LABELS & ADVERTISEMENTS	A	A
70-SAMPLE REPORTS	1	1
70-SAMPLES - DECORATED	A	A
70-SCHEDULE - SAMPLE REQUEST	1	1
70-SOCIETY OF PLASTICS INDUSTRY - CORRES.	A	A
70-SOCIETY OF PLASTICS INDUSTRY - FINISHED WORK	BD	BD
70-SPECIFICATION MASTER CUSTOMER	C	G
70-SPECIFICATION NUMBER ASSIGNMENT CARDS- OBSOLETE	4	4
70-SPECIFICATIONS FILE-MASTER-STANDARD SPECIFICATION WASTE	C	F
70-STOCK BLANKS - OWENS-ILLINOIS	P	P
70-STOCK GOVERNMENT K/D CARTONS	3	10
70-SURVEY OF INDUSTRY - RESEARCH & DEVELOPMENT	1	2
70-TECHNICAL EQUIPMENT REPORT	3	3

CONFIDENTIAL

70-RESEARCH DEVELOPMENT&ENGINEERG

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
70-TECHNICAL NOTEBOOKS	20	20
70-TECHNICAL REPORTS	5	5
70-TEMPORARY STANDARD LOG	1	1
70-TOOLS, JIGS, FIXTURES - LIBBEY (CARD INDEX)	A	A
70-TORQUE TESTER RECORD CARDS	A	A
70-TRACINGS MACHINE PARTS - ORIGINALS	C	F
70-UNIT LOAD DATA RECORDS - CUSTOMER	A	A
70-UNIT LOAD DESIGNS - CUSTOMER INFO.	C	Y
70-WORK DATA - MONTHLY	1	1
70-WORK FORMS REPORTS	3	3

CONFIDENTIAL

80-PURCHASING,MAT'L CNTL,TRANSP

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
80-BILLS OF LADING	A	5
80-CROSS INDEX CARDS - PRODUCTS	A	A
80-CULLET ORDERS -HISTORICAL RECORD	6	6
80-DRIVERS DAILY LOG BOOK	1	1
80-EQUIPMENT CONVERSION CORRESPONDENCE	C	Q
80-FREIGHT CLAIMS	C	7I
80-FREIGHT RATES	2	2
80-FREIGHT TARIFFS	C	J
80-FURNANCE - EXPANSION	C	5I
80-FURNANCE - REBUILD	C	5I
80-GATE PASSES FOR TRUCKS	6M	6M
80-GOVERNMENT BILLINGS, ORDERS, BIDS, INQUIRIES & CONTRACT	C	20
80-HISTORY ON PURCHASE FROM OUTSIDE GLASS COMPANIES	5	5
80-HOUSEHOLD GOOD SHIPMENT RECORD	1	1
80-INFORMATION FILE - OUTSIDE VENDORS	A	A
80-ITEL RAIL CONTRACT & AMENDMENTS TO CONTRACTS	C	BD
80-LOGS - ABSTRACTS OF BOATS	C	4
80-M.T.W EASEMENTS & RIGHT OF WAYS	C	BD
80-MARINE OPERATION - MONTHLY REPORTS ON TUGS & BARGES	2	2
80-MATERIAL RECLAIMED REPORT	1	1
80-MISCELLANEOUS SALES & RETURN ORDERS (MSRO) COPIES	1	1
80-MISCELLANEOUS SALES & RETURN ORDERS (MSRO) ORIGINALS	C	5I

CONFIDENTIAL

80-PURCHASING,MAT'L CNTL,TRANSP

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
80-NATIONAL AGREEMENTS BY PURCHASING (COPIES)	T	2T
80-OUTSIDE PURCHASE WITH COPY OF INVOICE & CORRES.	5	5
80-POOL MANIFESTS - CARS & TRUCKS BY DESTINATION	2	2
80-PURCHASE ORDERS - ACCTS. PAYABLE COPY	C	5I
80-PURCHASE ORDERS - PURCHASING COPY	C	3
80-PURCHASING CONTRACTS	C	20
80-QUOTATIONS	A	2
80-REFERENCE & DATA MATERIAL PERTAINING TO PURCHASES	BD	BD
80-REPORTS - DEMURRAGE & BILLS	3	3
80-REPORTS - INBOUND CAR & TRUCK LOADS MONTHLY	1	1
80-REPORTS - OUTBOUND CAR & TRUCK SHIPPING	1	1
80-REQUISITIONS - STORES	1	1
80-S.R.&N REPORTS	1	2
80-S.R.&N RIGHT OF WAY AGREEMENTS	C	BD
80-SHIPPING INSTRUCTIONS - DAILY	3M	3M
80-SIGHT DRAFTS	3	3
80-SIPS - STORES INVENTORY/PURCHASING SYSTEM - MONTHLY	1	1
80-SIPS - STORES INVENTORY/PURCHASING SYSTEM - YEAR-END	C	7I
80-STANDING ORDERS - OPEN PURCHASE REQUISITIONS COMPLETED	1	1
80-STORES STOCK RECORD CARDS	C	3
80-TRANSPORTATION REGULATIONS, BULLETINS, TESTING PROCEDUR	C	F
80-TRUCKING TRIP JACKETS	1	2

CONFIDENTIAL

80-PURCHASING,MAT'L CNTL,TRANSP

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
80-V. SO. UTILITY EASEMENTS	C	BD
80-WARE TRANSFERRED TO INDUSTRY DAILY	1	1
80-WARE TRANSFERRED TO TOLEDO - MONTHLY	1	1

CONFIDENTIAL

90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-ABSTRACTS (SHIPPING DOCUMENTS)	C	2
90-ACCOUNTS (MAJOR) - U.S. FOREIGN	A	A
90-ADVERTISING AND PROMOTION LITERATURE	A	A
90-ADVERTISING REPRINTS	5	20
90-AGENCY SCHEDULE CHANGES (SERVICE & FIELD)	2	2
90-AGENT AGREEMENTS - DEALER	P	P
90-AGREEMENTS - DEALER & FAIR TRADE	A	A
90-ANALYSIS OF SALES BY CUSTOMER - DECEMBER	3	5
90-ANALYSIS OF SALES BY CUSTOMER - MONTHLY	1	3
90-AUDITS - BRANCH PERFORMANCE (ORIGINALS)	2	2
90-AVON GENERAL FILES	2	2
90-BEVERAGE FRANCHISE REPORT	1	1
90-BONUS PLAN	1	2
90-BOOKLETS - HISTORICAL (NEW ENGLAND GLASS CO.)	X	X
90-BOTTLE DESIGN PRINTS	A	A
90-CATALOG AUTHORIZATIONS	3	3
90-CATALOG OF PARTS & EQUIPMENT - VENDOR	A	A
90-CATALOGS - COMPETITORS	10	10
90-CATALOGS - COPIES	A	A
90-CATALOGS - ISSUER	C	P
90-CER-VIT MOLD PROCUREMENT COVER LIDS	C	20
90-CER-VIT PRODUCTS - LITERATURE	3	6

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90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-CLIP ART BOOKS	A	A
90-COMMISSION STATEMENTS	1	6I
90-COMPETITIVE REPORTS & SUMMARIES	3	5
90-COMPUTER M.A.P.S. REPORTS	A	A
90-CONSUMER ANALYSIS REPORTS	A	A
90-CONSUMER LETTERS ON LIBBEY GLASSWARE	1	1
90-CONTINUOUS THREAD PRODUCT FILE	1	2
90-CONTRACTS - CUSTOMER BID PROPOSALS	C	5
90-CORRUGATED - CARTON DIFFERENTIAL	2	2
90-CUSTOMER AGREEMENTS	3	3
90-CUSTOMER ANALYSIS HISTORY	A	A
90-CUSTOMER CORRUGATED SERVICE LABORATORY TESTING	10	20
90-CUSTOMER DECENDING ORDER LIST	1	1
90-CUSTOMER EQUIPMENT FILE BY CUSTOMER & ITEM	AX	AX
90-CUSTOMER INQUIRIES	1	1
90-CUSTOMER ITEM TAPE - DEC.(ORIGINALS)	2	5I
90-CUSTOMER MASTER LIST - MONTHLY UPDATING	A	A
90-CUSTOMER PRICE QUOTATIONS	3	5
90-CUSTOMER PROFIT ANALYSIS	4	4
90-CUSTOMER REPORTS - (MAJOR)	10	30
90-CUSTOMER SALES ANALYSIS - ANNUAL REPORTS	10	10
90-CUSTOMER SALES ANALYSIS - MONTHLY REPORTS	2	2

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90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-CUSTOMER SERVICE EXPENSE REPORT	1	1
90-CUSTOMERS QUOTATIONS - CORRESPONDENCE - GOVERNMENTAL	3	5
90-CUSTOMERS QUOTATIONS - CORRESPONDENCE - PRESCRIPTION	3	5
90-CUTTING PRODUCTION - MONTHLY	1	1
90-DEALER BULLETINS - KIMBLE SALES	C	5I
90-DECO SECTION IN 1360 STAFF FILE	2	3
90-DECORATING ACCOUNTS	A	A
90-DELIVERY RECEIPTS	C	5I
90-DEMURRAGE CONTROL SHEETS	1	1
90-FACTORY ORDERS BY BRANCHES	1	1
90-FEDERAL SUPPLY SCHEDULE PRICE LIST	A	A
90-FIELD MANAGEMENT INFORMATION	A	A
90-FOOD SERVICE & INFORMATION REPORTS	5	5
90-FOOD SERVICE SALES - BY DOZEN (TAPES) ,	2	2
90-FOOD SERVICE SALES - BY PRODUCT -QUARTERLY TAPES	5	5
90-FORECASTS PUBLISHED - LONG	10	10
90-FORECASTS PUBLISHED - SHORT	1	1
90-FORMING CODE TAPES - CLOSURE - MONTHLY	A	A
90-FORMING CODE TAPES - CLOSURE - YEARLY RECAPS	2	2
90-FORMING WORK SCHEDULES - MONTHLY	2	5
90-FRANCHISE AGREEMENT - KIMBLE LAB SALES	A	A
90-FRANCHISE COMPANY APPROVALS	A	A

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RECORDS RETENTION SCHEDULE
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90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-FRANCHISE SHIPMENT REPORTS	1	1
90-G.S.A. GENERAL SERVICES - ADM.	B	B
90-GOVERNMENT & CUSTOMER WITH CORRESPONDENCE REPORTS	5	5
90-GOVERNMENT CONTRACTS	C	20
90-HISTORY BOOK ON SALES STATISTICS	2	P
90-HISTORY OF GLASS	X	X
90-HOLD WASTE TICKET	1	1
90-INCOME - NET BY SALES DIVISIONS	2	2
90-INDUSTRY INFORMATION	2	2
90-INFORMATION ON RESEARCH AGENCIES	A	A
90-INSTITUTE REPORT	1	2
90-ITEM MASTER BY PRODUCT LINE - COMPUTER TAPES	4	4
90-ITINERARIES - REGIONAL & AREA	A	A
90-LEVER BROTHERS - REPORTS & PROJECTS	1	8
90-LIBBEY PUBLICITY	2	2
90-LITERATURE - COMPETITORS MANUFACTURERS	A	A
90-MANUFACTURING CONTRACTS	C	20
90-MARKETING & PLANNING - DIVISION	A	A
90-MARKETING - STRATEGIC PLANS	2	2
90-MARKETING PLANNING BOOKS	3	3
90-MARKETING RESEARCH PROJECTS - FISCHE	C	P
90-MARKETING RESEARCH STUDIES	4	4

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90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-MARKETING TAB TAPES	5	5
90-MILL ANALYSIS	A	A
90-MILLS CONTRACTS	10	20
90-MILLS RECORDS	A	A
90-MILLS SAMPLES	A	A
90-MOLD - CUSTOMER MOLD DEVELOPMENT (DUPLICATE)	1	2
90-MOLD - EQUIPMENT	2	2
90-MOLD - EXISTING ITEMS WITH CORRESPONDENCE (DUP.)	1	2
90-MOLD AMORTIZATION FILE	3	7I
90-MOLD EQUIPMENT REPORT - RECAP SALES ORDERS	P	P
90-MOLD SHIPMENT TAPES - DEC. Y.T.D.	C	8
90-NATIONAL ACCOUNTS REPORTS, STUDIES, STATISTICS	5	5
90-NEWSPAPER CLIPPINGS - ADS OF LIBBEY & COMPETITORS	A	A
90-OBJECTIVES & PLANS - STATEMENTS	10	10
90-ORDERS RECEIVED - COPIES (TAPES) - MONTHLY REPORT	1	1
90-ORDERS RECEIVED - COPIES (TAPES) - QUARTERLY REPORT	2	2
90-ORDERS RECEIVED - COPIES (TAPES)- YEAR-END REPORT	5	5
90-OVERAGE & PALLET TAPE REPORTS	1	1
90-PACKAGING SPECIFICATION	A	A
90-PALLET ACCOUNTING SYSTEM	C	5
90-PHOTOGRAPHS BLACK & WHITE GLOSSY	A	A
90-PHOTOGRAPHS OF FOOD SERVICE ITEMS	A	A

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RECORDS RETENTION SCHEDULE
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90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-PLANS - BRANCH OPERATING	1	1
90-PRICE CHANGES	C	5
90-PRICE ERRORS	1	1
90-PRICE INQUIRIES FILES	1	3
90-PRICE INQUIRY FORMS 704	3	5
90-PRICE LISTS AND DEVELOPMENT PAPERS	5	5
90-PRICING INDEX	15	15
90-PRINTING CARDS	C	F
90-PRINTS - CURRENT CUSTOMERS	A	A
90-PRODUCT DEVELOPMENT PROJECT FILES	A	A
90-PRODUCT PHOTOS	P	P
90-PRODUCT RECOMMENDATIONS	3	3
90-PROFILES BY BRANCH - DEALERS	A	A
90-PROGRAMS - MERCHANDISING	X	X
90-PURCHASE ORDERS ORDER CORRECTIONS (FORM 147)	2	2
90-RECLAMATION	1	1
90-REFERENCE MATERIAL - HISTORICAL	X	X
90-REFERENCE MATERIAL - PREMIUM SALES	5	5
90-REPRODUCTION REQUESTS	1	1
90-REQUISITIONS & SAMPLE ORDERS	1	1
90-RETAIL PREMIUM & PRICE BULLETINS	2	2
90-RETURNED GOODS REPORT	1	2

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90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-SALES & PROFIT CONTEST WITH LITERATURE	5	5
90-SALES BUILDER	A	A
90-SALES BULLETINS & PUBLICATIONS - ISSUER - TOLEDO	C	5
90-SALES BULLETINS & PUBLICATIONS - LOCATION COPIES	A	A
90-SALES BY MONTH - COMPARISON	1	1
90-SALES CONTRACTS - EXCHANGE	10	20
90-SALES CONTRACTS - EXPIRED	5	20
90-SALES CONTRACTS - INVOICES	1	1
90-SALES CONTRACTS - PRICING OR BID PROPOSALS	5	20
90-SALES CONTRACTS, BASIC, SALES REP., DISTRIBUTORS	P	P
90-SALES CONTROL REPORTS	A	A
90-SALES DIRECTORY - SALESMEN & TERRITORY	A	A
90-SALES FILES - RENEGOTIABLE	10	10
90-SALES MEETING REPORTS	X	X
90-SALES ORDERS - CLOSED	C	5
90-SALES ORDERS - OPEN	A	A
90-SALES PRODUCTION & INVENTORY REPORTS (MONTHLY)	3M	3M
90-SALES PRODUCTION & INVENTORY REPORTS (YEAR-END)	1	1
90-SALES QUOTATIONS	1	2
90-SALES REPORTS AND SUMMARIES - MONTHLY	1	2
90-SALES REPORTS AND SUMMARIES - YEAR-END	C	5I
90-SALES REQUIREMENTS	1	1

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RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

90-SALES & SERVICE

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
90-SALES STATE & CITY BOOKS	1	5
90-SALES TAX EXEMPTION CERTIFICATE PPD BLANKET TYPE	C	N
90-SALESMEN OLD PERFORMANCE RECORDS	1	2
90-SALESMEN REPORTS	1	1
90-SCRAP AUTHORIZATION FORMS (FORM 277)	1	2
90-SERVICE ENGINEER REPORTS - 250 S	1	1
90-SHIPPING REPORT - WEEKLY	1	1
90-SHIPPING SHEET COPIES	1	2
90-SIGN-IN SHEETS - DAILY	6M	6M
90-SPECIAL PRICES & FREIGHT ALLOWANCE	5	5
90-SPECIFICATIONS - CANCELLED	1	1
90-SPECIFICATIONS - CARDS INACTIVE	X	X
90-SPRAY APPLIED COLOR - COST ESTIMATES & CORRESPONENCE	5	5
90-STAMP COMPANY LISTINGS	A	A
90-STOCK & MOLD REQUESTS - STOCK ITEMS	2	2
90-STOCK TRANSFERS DAILY	3M	3M
90-STORAGE CHARGES REPORTS	C	2
90-SURVEYS BY LINE	3	5
90-TOSS SCHEDULING SYSTEM	1	1
90-TRADE SHOW FILES BY SHOW	2	2
90-WARE TRANSFERRED IN AND OUT RECORDS	1	1
90-WORKSHEETS - DECORATING	1	1

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100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-ACCEPTANCE SAMPLING & PPS PLANS BY CUST.	10	10
100-ACCEPTANCE SAMPLING CORRESPONDENCE - GENERAL	2	2
100-ACTIVE LOADING PATTERNS FOR RETURN/NON-RETURN BOTTLES	10	10
100-ACTIVITY FILE - MANUFACTURING-SALES &MARKETING REPORTS	2	7
100-ANTI-TRUST CORRES. E.G INVOLVING COMPETITORS, ETC.	2	6
100-APA HARVESTING RESEARCH PROJECT	5	7
100-BALED WASTE TICKETS MATCHED	1	1
100-BALER REPORT DAILY CARTON SCRAP RECORD	3M	3M
100-BOOK & FINISH PRINTS (COPIES)	A	A
100-BOTTLE MACHINE LINE-UP	P	P
100-CARTON SPECIFICATION	C	F
100-CARTONS - ORDER RECORDS	1	1
100-CENTER TICKETS	1	2
100-COMPARISON OF PACK & CASE PERFORMANCE	1	2
100-COMPLAINT SUMMARIES - YEAR-END	5	5
100-COMPUTER SYSTEMS MECHANICAL EQUIP. BOOKLET REPORT	4	4
100-CORRUGATED PRODUCT DETAILS - MONTHLY TAPES	1	1
100-CORRUGATED RUN SHEETS	1	3
100-CORRUGATED STATISTICAL DATA REPORTS - DEC.	10	10
100-CROSS REFERENCE LISTING	A	A
100-CUSTOMER ACTIVITY FILE	2	7
100-CUSTOMER COMPLAINTS -EXCEPT FOR REGULATED ITEMS	1	6

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SECTION A
RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-CUSTOMER FILES - PLANT QUALITY AUDIT FILE	5	5
100-DECORATING JOB HISTORIES	A	A
100-DESIGN - DRAWINGS (ORIGINALS)	A	A
100-DIE ORDERS	1	1
100-DIE TAPES	1	1
100-EFFICIENCY REPORTS	1	1
100-EMHART REPORTS	1	1
100-EXISTING MOLD EQUIPMENT - CHANGES	2	2
100-FACTORY ORDER PRODUCTION COPIES	1	1
100-FACTORY ORDERS CHANGES	1	5I
100-FACTORY ORDERS COMPLETED ORDER FILE	2	5I
100-FINISH EQUIPMENT INVENT PROJECTS	1	1
100-FINISHED GOODS SCRAPPING REQUEST	1	1
100-FORM FILES - 308 & SP-10	C	BD
100-FORMING CODE BOOKS	A	A
100-FORMING DATA TAPES	A	A
100-FORMING JOB HISTORIES - ORIGINAL	C	AD
100-G.P.I. LABORATORY INDUSTRY TESTS	10	10
100-GLASS & QUALITY CERTIFICATE	2	5
100-GLASS HOUSE STATISTICS	P	P
100-GMP INTERNAL AUDIT CORRESPONDENCE	1	2
100-HISTORY FOLDERS (SPECIFICATION FILES)	3	7

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100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-INDUSTRIAL ENGINEERING MONTHLY REPORT	1	1
100-INDUSTRY POSITION REPORTS	2	2
100-INJECTION SYSTEM MACHINES - I.S. MACHINES	C	5I
100-ITEM PRINT BOOKS	A	A
100-JOB ANALYSIS REPORTS	P	P
100-JOB HISTORIES - MACHINERY	A	A
100-JOB HISTORY & MOLD SUMMARY TAPES	2	17
100-JOB HISTORY PRODUCTION BOOKS	2	2
100-JOB SCHEDULE CARDS - COMPLETED	3	3
100-JOB TAPE BOOK - CLOSED OUT	A	A
100-LABOR DISTRIBUTION CARDS	1	1
100-LABOR DISTRIBUTION TAPES	C	3
100-LOAD DIAGRAMS - OBSOLETE	5	5
100-LOGGING OPERATION REPORT	1	6
100-MACHINE OPERATION REPORTS - DOWNTIME SHEETS (FORM CP530	1	1
100-MACHINERY MAINTENANCE COST REPORTS	C	5
100-MAJOR TOPIC FILE RELATED TO CORRUGATED QUALITY	5	5
100-MANUFACTURING INSTITUTE INDUSTRY TESTS - TEST BY GCD	10	10
100-MANUFACTURING ORDERS	2	4
100-MANUFACTURING PERFORMANCE PLAN REPORTS (DECEMBER)	P	P
100-MANUFACTURING PERFORMANCE PLAN REPORTS (MONTHLY)	1A	1A
100-MANUFACTURING VARIANCE REPORTS	1	1

CONFIDENTIAL

100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-MATERIAL DEVELOPMENT PROCEDURE TESTS	A	A
100-MATERIAL SUPPLIERS FILE	A	A
100-MOLD BOOKS TOP 500	4	4
100-MOLD DEPOSIT FILE	5	5
100-MOLD FILES	8	8
100-MOLD FORECASTS	2	2
100-MOLD ITEM LISTINGS	A	A
100-MOLD JOB HISTORY FILED NUMERICALLY *LEGAL REQUIREMENTS	H	8
100-MOLD RECORDS BY SALE LINE & NUMBER	2	7
100-MOLD SCHEDULES	2	2
100-MOLD USAGE PROJECT REPORTS	1	1
100-MOLDING COMPOUND REPORTS (FORM CP-5178)	1	1
100-OFFICIAL WEEKLY SCHEDULE	A	A
100-OPERATING STATISTICS (MILL)	2	5
100-OPERATING STATISTICS CORRUGATED CORRESPONDENCE	10	10
100-ORDER ANALYSIS TAPES	4	4
100-OUTSIDE CONTACTS & INTER'L CORRES. & PRICE QUOTES	2	2
100-PACK-TO-MELT REPORTS	2	2
100-PACKAGE PERFORMANCE & CHARACTERICTICS	C	F
100-PAPER TESTING LAB - MAJOR PROJ.-COPIES OF FINAL REPORT	10	10
100-PERFORMANCE FILES - PLANT	2	2
100-PERFORMANCE SHEETS - DAILY OPERATION	3	3

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100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-PHOSPHATE FILES	P	P
100-PLACARD REGISTERS	C	5
100-PLANT CORRUGATED & SHEET INFORMATION	3	3
100-PLANT FORMING CODE & PRODUCT NO. SEQUENCE TAPES	3M	3M
100-PLANT STATISTIC PRODUCTION REPORT	1	2
100-PLASTIC MATERIAL EVALUATION REPORTS (1ST RUN)	3	5
100-PRINTING & ENGINEERING MONTHLY REPORT	C	5
100-PROCESS CONTROL CHARTS	1	1
100-PROCESS MACHINE OPERATING REPORTS	2	5
100-PRODUCT LINES - COST & PRICE - HISTORY - ACTIVITY	10	10
100-PRODUCT SALES - PRODUCTION & INVENTORY DATA - LIBBEY	10	10
100-PRODUCTION & DOWNTIME REPORTS-DAILY	1M	1M
100-PRODUCTION AUTHORIZATION	1	2
100-PRODUCTION EFFICIENCY REPORTS	1	2
100-PRODUCTION EVALUATION	C	5
100-PRODUCTION MANAGER SITUATION REPORT - WEEKLY	1	2
100-PRODUCTION OF ITEMS - STOCK & PRINT	C	5
100-PRODUCTION ORDERS	1	1
100-PRODUCTION SCHEDULES & REPORTS (DAILY)	1	1
100-PRODUCTION STATISTICS -MOLD SHOP	3	3
100-PRODUCTION TAPES - MONTHLY	1	1
100-PROFIT EVALUATION PROGRAM (PEP TAPES)	1	1

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RECORDS RETENTION SCHEDULE
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100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-PROJECTS - DEVELOPMENT	2	2
100-PULPWOOD - DAY BOOK	1	6
100-PULPWOOD - SCALE TICKETS	1	6
100-PULPWOOD SUMMARIES	2	6I
100-QUALITY & SPECIFICATION REPORT	1	1
100-QUALITY ASSURANCE GROUP CORRESPONDENCE	1	3
100-QUALITY COMPLAINTS BY CUSTOMER A-Z - 3548S	1	1
100-QUALITY CONTROL - PRODUCT STANDARDS	1	2
100-QUALITY CONTROL CHARTS	1	2
100-QUALITY CONTROL INSPECT RECORDS	2	5
100-QUALITY CONTROL INSPECT RECORDS RELATING TO LITIGATION	C	BD
100-QUALITY CONTROL REPORT - EXCEPT THOSE REQUIRED BY FDA	C	5
100-QUIK CAP PRODUCT FILE	1	2
100-RESIDENT OFFICE CUSTOMER MOLD REPORTS	C	2A
100-REWORK ORDERS	1	1
100-RUNNING FILE ROLL STOCK	1	1
100-SCHEDULES - REPACKED BY DEPARTMENT	1	1
100-SITUATION REPORTS	2	2
100-SPIN TOP PRODUCT FILE & MISCELLANEOUS CORRESPONENCE	1	2
100-STATISTICAL & PRODUCTION REPORTS - MONTH-END	1	1
100-STATISTICAL, PROD. & INVENTORY CONTROL REPORT - MO.	1	1
100-STATISTICAL, PROD. & INVENTORY CONTROL REPORT-YEAR-END	10	10

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100-PRODUCTION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
100-STATISTICS TAPES - FORMING	5	5
100-STOCK & PRINT REPORTS	1	1
100-STUMPAGE RECORDS	1	6I
100-SURFACE TREATMENT PROBLEMS	1	1
100-TEST MATERIAL FILES	A	A
100-TESTING & ITEM NUMBER FILE	A	A
100-TYPE II TEST SHEETS	C	5
100-U.S. GOVERNMENT & MILITARY STANDARDS	C	L
100-UNIT LOAD DIAGRAMS - BY CUSTOMER & MOLD NUMBER , ETC.	C	H
100-UNIVERSAL FILE - METAL SUBJECT	1	2
100-UNIVERSAL FILE - MOLDED SUBJECTS REPORTS - MEETINGS	1	2

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110-LEGAL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
110-AGREEMENTS - CANCELLED (PATENTS)	C	7
110-ANTITRUST APPRAISAL FORMS	C	5
110-ANTITRUST COMPLIANCE CERTIFICATES	C	5
110-ANTITRUST COMPLIANCE SPEECHES	C	2
110-ANTITRUST NOTES FROM APPRAISAL MEETINGS	C	2
110-ATTORNEY FILES - OPEN/CLOSED	C	AL
110-CLAIMANT FILE ON LEGAL CLAIMS AGAINST OI	C	L
110-COMMERCIAL OFFICE LEASES - ACTIVE	1	AI
110-COMPETITIVE CONTACT FORMS & CORRESPONDENCE	C	5
110-COMPETITIVE CONTACT LOGS (CUST.-COMPETITOR SITUATIONS)	1	1
110-CONFIDENTAL DISCLOSURE RECORD - AFTER DROPPING- PATENT	C	10
110-CORRESPONDENCE - UNRELATED TO LIGITATION	C	AG
110-COURT ORDER J-5 TO DIVEST BOX PLANTS	10	10
110-DEEDS	P	P
110-DEFALCATION CASES	10	10
110-DESIGN APPLICATION FILE - DROPPED	C	10
110-DESIGN APPLICATION FILE - ISSUED	C	17
110-DOCUMENTS LITIGATION DISMISSED WITH PREJUD.	C	AG
110-DOCUMENTS LITIGATION DISMISSED WITHOUT PREJUD.	C	AH
110-DOCUMENTS RELATING TO CLAIMS	C	AH
110-FOREIGN PATENT PROSECUTION FILES	C	7
110-FOREIGN TRADEMARK PROSECUTION FILES-IF DROPPED	C	7

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110-LEGAL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
110-GAS PROPERTIES - CLARION, FAIRMONT	A	P
110-INVENTION SUPPLEMENTAL AWARD PLANS	C	10
110-LEASE AGREEMENTS -ORIGINALS - CANCELLED	C	AS
110-LEASE ANALYSIS DATA SHEETS (COPIES)	A	A
110-LEASE ANALYSIS DATA SHEETS (ORIGINALS)	5	5
110-LEGAL SUIT SAMPLE OF GLASS CONTAINERS	C	L
110-LICENSES (VENDING & AUTOMOBILE)	C	K
110-OFFICIAL DOCUMENTS EVIDENCING BUSINESS TRANSACTIONS	C	BD
110-PATENT & CONFIDENTIAL AGREEMENT	C	T10
110-PATENT ACCUMULATED INFORMATION	A	A
110-PATENT FILES - COPIES	20	20
110-PATENT FILES RELATING TO PROCESSING OF PLASTICS	P	P
110-PATENT INFORMATION	17	17
110-PATENTS & DRAWINGS (COPIES)	A	17
110-POLICIES - LEGAL MATTERS & PRODUCT LIABILITY	10	10
110-PROPERTY OWNED - O-I ACTIVE	P	P
110-PROPERTY OWNED - O-I INACTIVE	1	7
110-REAL ESTATE CORRES. CO. - OWNED - ACTIVE	3	25
110-REAL ESTATE INDEX BOOKS ON LEASE AGREEMENTS	20	20
110-REAL ESTATE LEASES & CORRES. - MISC. ACTIVE	P	P
110-REAL ESTATE LEASES & CORRES. - MISC. TERMINATED	1	7
110-REAL ESTATE OWNED - CLOSED & TRANSFER FILE CORRES.	1	10

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110-LEGAL

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
110-SETTLEMENT DOCUMENTS IN CASES DISMISSED WITH PRED.	C	AH
110-SITES PENDING - ACTIVE	C	3
110-SPACE AVAILABLE - OFFICE, PLANT, WHSE. - ACTIVE	1	2
110-SUBMISSIONS - OUTSIDE (AFTER DROPPING)	C	20
110-TRADE ASSOCIATION REQUEST AND REPORT FORMS	C	5
110-TRADEMARK REGISTRATION - U.S. & FOREIGN	C	BD
110-U.S. PATENT APPLICATION FILE - ABANDONED	C	10
110-U.S. PATENT APPLICATION FILE - ISSUED	C	25
110-U.S. TRADEMARK PROSECUTION FILES - IF DROPPED	C	7
110-WAREHOUSE - LEASED - ACTIVE	30	30
110-WAREHOUSE - LEASED - INACTIVE	1	7
110-WAREHOUSES - PUBLIC - ACTIVE	30	30
110-WAREHOUSES - PUBLIC - INACTIVE	1	7

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120-ADMINISTRATION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
120-APPLICATION SYSTEM DOCUMENTATION	P	P
120-CERTIFIED & REGISTERED INSURED POST OFF. RECPTS.& BOOKS	5	5
120-COMMUNICATION PLANS - DATA PROCESSING	A	A
120-COMPUTER LIBRARY DIRECTORIES	A	A
120-COMPUTER TECHNIQUES (VARIOUS)	A	A
120-DISASTER RECOVERY PLANS	P	P
120-GOVERNMENT AGENCY REPORTING	P	P
120-HISTORIES OF COMPUTER CENTER - DEPT	P	P
120-LISTINGS FOR RUNS (PROGRAMS) - ORIGINAL	A	A
120-MEETING & FOOD SERVICE FORMS	1	1
120-OPERATION OF DATA CENTER PROGRAM	A	A
120-POSTAGE METER READINGS	A	A
120-POSTAL INFORMATION	A	A
120-PROGRAM LISTINGS	A	A
120-PROGRAM TRAINING ON VARIOUS MACHINES	1	1
120-PROGRAMMING SERVICE REQUESTS	2	3
120-SALES FORECASTING SYSTEM DOCUMENTATION	A	A
120-SOFTWARE - PROGRAMS FOR COMPUTERS ON VARIOUS MACHINES	C	F
120-SYSTEM & PROGRAMMING MANDAYS FORECASTS (QUARTERLY)	1	1
120-UNITED PARCEL SERVICE - M.S.R.O. COPIES	5	5

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-ACCOUNTING RESERVES - DETAIL FILES	2	4I
130-ACCOUNTS PAYABLE ACCTS - RECONCILIATION & SUPPORT	6M	3
130-ACCOUNTS PAYABLE BATCH CONTROL FILE	A	7I
130-ACCOUNTS PAYABLE CORRECTION INPUT BATCHES	A	7I
130-ACCOUNTS PAYABLE DISTRIBUTION JOURNALS	2	7I
130-ACCOUNTS PAYABLE FLASH TARGETS	A	7I
130-ACCOUNTS PAYABLE MICROFICHE FILE - DISBURSE.JOURNAL,MO.	7I	7I
130-ACCOUNTS PAYABLE MICROFICHE FILE - PURCHASE JOURNAL,MO.	7I	7I
130-ACCOUNTS PAYABLE SYSTEM CONTROL FILE (HASP LISTINGS)	1	1
130-ACCOUNTS PAYABLE TRIAL BALANCE	2	7I
130-ACCOUNTS PAYABLE VENDOR FILE MAINTENANCE FORMS	A	3
130-ACCOUNTS PAYABLE VENDOR MASTER CODE BOOK	A	5I
130-ACCOUNTS PAYABLE YEAR END AUDIT REPT'S PURCHASE CUT-OFF	A	1
130-ACCOUNTS RECEIVABLE AGE ANALYSIS	1	5
130-ACCOUNTS RECEIVABLE ATTORNEY LEDGERS	C	6I
130-ACCOUNTS RECEIVABLE CUSTOMER HISTORIES	3	3
130-ACCOUNTS RECEIVABLE DAILY REGISTERS	1	10
130-ACCOUNTS RECEIVABLE DATA PREP CONTROL SHEETS	2M	2M
130-ACCOUNTS RECEIVABLE LISTING DAILY	1	2
130-ACQUISITIONS , DISSOLUTION & MERGERS	C	P
130-ACTIVITY SALES REPORT - INVOICES PROCESSED	P	P
130-AFFILIATE PAYMENT CERTIFICATES	C	7I

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-AFFILIATE STATEMENTS - YEAR-END- A/R DECENTRALIZED DEPT	1	6I
130-AMEX ACTIVITY BY ACCOUNT - REPORT 45 - FICHE	P	P
130-AMEX ACTIVITY BY P.C.R. - REPORT 46 - FICHE	P	P
130-AMEX AMERICAN EXPRESS STATEMENTS	1	5I
130-AMEX CARDHOLDER LIST BY DIVISION & NAME	A	A
130-AMEX CARDHOLDER LIST BY NAME	A	A
130-AMEX CARDHOLDER LIST BY NUMBER	P	P
130-AMEX COPY OF PETTY CASH REPORT	1	2
130-AMEX HARD COPIES OF CHARGES	1	5I
130-AMEX HARD COPY STATUS & EDIT REPORTS - FICHE	P	P
130-AMEX HISTORY	P	P
130-AMEX JOURNAL ENTRY DETAIL	1	2
130-AMEX JOURNAL ENTRY DETAIL - REPORT 55	1	1
130-AMEX LOGS TO AMERICAN EXPRESS	2	2
130-AMEX MATCHED HISTORY - FICHE	P	P
130-AMEX MONTHLY CORRECTIONS	2	2
130-AMEX NOTIFICATION CARDS & CANCELLED CARDS	6M	6M
130-AMEX NOTIFICATION OF CARD STATUS	1	1
130-AMEX NOTIFICATION OF LOST/STOLEN CARDS	1	1
130-AMEX O/S HARD COPY BY DIV. & BY DIV SUMMARY - FICHE	P	P
130-AMEX OPEN ITEM REPORTS	2	3
130-AMEX PAYMENT DETAIL	1	2

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-AMEX RECONCILIATIONS BY ACCOUNT	P	P
130-AMEX RECONCILIATIONS BY DIVISION	1	4
130-AMEX REPORT OF HARD COPY-60 DAYS OLD CARDHOLDER	2	2
130-AMEX TISSUE STATUS & EDIT REPORT - FICHE	P	P
130-AMEX TISSUES EXPENSED	1	3
130-AMEX VENDOR ANALYSIS RECAP	5	5
130-AMEX VENDOR ANALYSIS REPORT	1	1
130-AUDIT QUALITY REPORT	1	3
130-AUDIT REPORT - LOCATION & DEPT. COPY	B	B
130-AUDIT REPORTS - AUDIT DEPT. COPY	C	10I
130-AUDIT REPORTS - PUBLIC AUDITORS	30	P
130-AUDIT WORKING PAPERS	AA	10I
130-AUTOMOBILE EXPENSE WORKSHEETS (FLEET COOR. RETAIN)	1	1
130-AUTOMOBILE RECORDS - LEASED	P	P
130-BANKING RELATION TRANSACTIONS - RECON DETAIL	6M	3
130-BILLING SUMMARIES - DAILY	6M	6M
130-BONUS DATA ALL OTHER BONUS PAPERS	1	1
130-BONUS DATA FOR FORMING DEPARTMENTS	1	2
130-BONUS FORMING CARDS	1	5
130-BONUS MONTHLY REPORTS	2	10
130-BOTTLE & FILLED PACKAGE INVENTORY TAPES - JAN.-DEC.	1	1
130-BOTTLE COST ESTIMATES FOR MOLD NO.	2	2

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-BOTTLE REPORTS - DEC. Y.T.D.	C	4
130-BOTTLE TAPES - DAILY TRANSACTION	3M	3M
130-BOX PLANT DETAIL SHIPMENT TAPES	1	1
130-BUDGETS - ANNUAL BUSINESS & SUPPORT	1	3
130-CAPITAL BUDGETS	1	2
130-CARTONS - GLASS SOLD (TAPES) - MONTHLY REPORT	1	1
130-CARTONS - GLASS SOLD (TAPES) - QUARTERLY REPORT	2	2
130-CARTONS - GLASS SOLD (TAPES) - SEMI-ANNUAL REPORT	2	2
130-CARTONS - GLASS SOLD (TAPES) - YEAR-END REPORT	6	6
130-CASH DISBURSEMENTS	1	1
130-CASH RECEIVED RECORDS - ACCTS. RECEIVABLE DEPTS.	1	6I
130-CASH RECEIVED RECORDS - PETTY CASH	2	2
130-CASH REGISTER - DAILY	2	2
130-CASHIER ACCOUNT - RECONCILIATION & SUPPORT	6M	3
130-CENTRAL HOURLY PAYROLL - RECON. & SUPPORT	6M	3
130-CHECK AUTHORIZATION REQUEST - FORM 518	C	5
130-CHECK REGISTERS - CASH BOOKS - ONIZED CLUB	6	6
130-CLOSING FILES - MONTHLY	10	10
130-CLOSING FILES - YEAR-END	5	5I
130-COMPARATIVE SHIPMENT REPORTS - MONTHLY	1	1
130-COMPARATIVE SHIPMENT REPORTS - YEAR-END	5	10
130-CONTAINER BOARD BILLING - FPD	1	6

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-CONTINGENCY PROVISION	3	3
130-CONTRIBUTIONS & DUES LISTS	C	3
130-CONTRIBUTIONS - CARDS	2	2
130-CONTRIBUTIONS - CORPORATE	5	5I
130-CONTROL BOOKS - CONVERTING	8	8
130-CONTROL BOOKS - WOOD PRODUCTS	1	2
130-CORRUGATED DEPT. COST ACCOUNTS	2	2
130-COST JOURNALS TAPES, SALES	1	1
130-COST MILL REPORTS	2	7
130-COST OBJECTIVE & PERFORMANCE BOOKLETS - DEC.	10	10
130-COST OBJECTIVE & PERFORMANCE BOOKLETS - MO.	1	1
130-COST REPORTS - MONTHLY	1	1
130-COST REPORTS - YEAR-END	2	5I
130-CREDIT MEMOS - PLANT COPY	1	2
130-CREDIT MEMOS - TOLEDO ACCOUNTING COPY	C	5I
130-CROSS CHARGES	1	6I
130-CULLET SLIPS	1	2
130-CUSTOMER LEDGER CARDS	C	6I
130-CUSTOMER NOTE RECEIVABLE WRITTEN OFF	P	P
130-DEFECTIVE CARTON PRODUCTION SCRAPPED	1	1
130-DEFERRED CHARGES & SUPPORTING DATA	C	3
130-DESIGN DEVELOPMENT GLASS & BILLING SURVEY	A	A

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-DISBURSEMENTS RUNS -WEEKLY	A	1
130-DISTRIBUTION FOR TRANSPORTATION PAY REFUNDS	A	7I
130-DRAFTS PAID	1	6
130-FINANCIAL STATEMENTS - CORPORATE (ALSO FORMER GRAYBACKS	C	P
130-FINANCIAL STATEMENTS - DIVISIONS	C	5
130-FINANCIAL STATEMENTS - PLANTS	1	2
130-FIXED CHARGES	1	1
130-FLASH EARNINGS - FPD COMPT. DEPT.	C	5
130-FORECASTS - PRICING QUOTES	5	5
130-FORECASTS WORKPAPERS - PROFIT (MONTHLY)	1	1
130-FOREIGN CORPORATION - ANNUAL REPORTS	P	P
130-FORMING JOB HISTORIES - ACCOUNTING DEPT. COPY	C	4
130-FREIGHT ACCOUNT - RECONCILIATION & DETAIL	6M	3
130-FREIGHT BILLS PAID	1	6I
130-FREIGHT INVENTORY COST RECORDS	1	6I
130-FREIGHT REGISTERS - PLANT COPY	C	3
130-FREIGHT REGISTERS - TOLEDO COPY - A/P DEPT.	C	7I
130-FREIGHT TRANS PAID FRT. REGISTER - MICRO.COPY	A	7
130-G.P.I REPORT WORKPAPERS	4	4
130-G.S.A. (BIDS, CONTRACTS, WORKPAPERS)	3	5
130-GAIN ON SALES OF TIMBER REPORT - FPD COMPT. DEPT.	C	5I
130-GENERAL LEDGER - ACCOUNT ANALYSIS	C	6I

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RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-GENERAL LEDGER MONTHLY RECONCILIATION OF CASH ACCTS.	2	2
130-GENERAL LEDGERS	5	P
130-GENERAL LEDGERS SALES SUPPORT - MONTHLY	1	5I
130-GENERAL OFFICE ACCOUNTS - PRINT-OUT - CHECKS ISSUED	6M	3
130-GENERAL OFFICE ACCOUNTS - RECONCILIATION & SUPPORT	6M	3
130-GRAYBACKS - (FINANCIAL STATEMENTS - CORPORATE)	C	P
130-HEALTH & WELFARE ACCT. - RECONCILIATION & SUPPORT	6M	3
130-HEAT TREAT PRODUCTION - DAILY	1	1
130-HISTORICAL FILES - AUDITING	A	A
130-HISTORY TAPES - CUSTOMER	3	3
130-INTERNATIONAL AGREEMENTS	A	A
130-INVENTORIES - ANNUAL	C	7I
130-INVENTORIES - MONTHLY	C	3
130-INVENTORIES - YEAR-END LIFO	C	P
130-INVENTORY AGING LIST	A	A
130-INVENTORY TICKETS	1	1
130-INVESTMENT ACCOUNTS - RECONCILIATION & SUPPORT	6M	5I
130-INVOICE PACKET (VOUCHER, INVOICE, P.O., MRR)	C	7I
130-INVOICES - A PLANT COPY	1	1
130-INVOICES - A TOLEDO ACCOUNTING COPY	C	7I
130-INVOICES - B PLANT COPY-(SALES INVOICES)	1	2
130-INVOICES - B TOLEDO ACCOUNTING COPY-(SALES INVOICES)	C	7I

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-INVOICES - CORRECTIONS	1	2
130-INVOICES - EQUIPMENT	5	7I
130-INVOICES - OUTSIDE VENDOR & INTER-COMPANY (COPIES)	3	3
130-INVOICES - PALLET - TOLEDO ACCT'G COPY	1	7I
130-INVOICES - STORAGE CHARGES - TOLEDO ACCT'G COPY	1	7I
130-JOURNAL ENTRIES - ORIGINALS	C	30
130-LIBBEY SALES TAPES - S-9 - DECEMBER	C	P
130-LIBBEY SALES TAPES - S-9 - MONTHLY	C	2
130-LOAD TALLY SHEETS	1	1
130-LOAD TICKETS	1M	1M
130-LOAN - EXPORT/IMPORT BANK	1	10
130-LOAN REPORTS - EMPLOYEE	5	5
130-LOANS & NOTES PAYABLE	C	AR
130-MANUAL CHECKS - SECOND COPY WITH BACKUP	A	7I
130-MANUAL CHECKS - THIRD COPY	A	3
130-MANUFACTURING PERFORMANCE GAIN & LOSS	2	2
130-MANUFACTURING VARIANCE ANALYSIS REPORTS	C	2
130-MATERIALS IN TRANSIT - YEAR-END	C	3
130-MEMO BILLINGS	C	2
130-MOLD BILLINGS	5	7I
130-MOLD COST MEMOS	C	5I
130-MOLD SHIPMENT TAPES - DEC. (COPIES)	C	2

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-MOLD SHIPMENT TAPES - DEC. (ORIGINALS)	4	17
130-MOVING EXPENSES	2	3
130-MRR'S - OPEN - ACCOUNTS PAYABLE (YEAR-END)	C	3
130-NORMAL & ESTIMATING 1650 FORMS	C	2
130-OPERATING EXPENSE BUDGET STATEMENTS	1	3
130-OUTSIDE WAREHOUSE EXPENSE REPORTS	C	5
130-OUTSIDE WAREHOUSE INVENTORY REPORTS	1	1
130-OVER-SHORTS & CULLETS	1	1
130-PALLET TAPES & M.R.R. - PLANTS	C	2
130-PASSPORT MASTERS	1M	1M
130-PAYMENT VOUCHERS & INVOICES - (HARD COPY)	A	1
130-PAYMENT VOUCHERS & INVOICES - (MICROFILM)	3	7I
130-PETTY CASH REPORTS - A/P DEPT. COPY	A	7I
130-PETTY CASH REPORTS - LOCATION COPIES	1	1
130-PLANS - ANNUAL BUSINESS & SUPPORT	1	3
130-PLANS - STRATEGIC & SUPPORT	C	3
130-PLANT RATE TAPES - PRODUCTS & INPUT FILES	3M	3M
130-PROFIT - UNREALIZED	2	6I
130-PROJECTS - 901 EXPENDITURES & COMMITTMENT REPORT	2	7
130-PURCHASE PAYMENT SYSTEM CHECKS, VOUCHER COPY	A	3
130-PURCHASE PAYMENT VOUCHER REPORT - TRANSMITTAL	C	7I
130-R BILLS	A	7I

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-RATES ANALYSIS	A	A
130-RAW MATERIAL COMPARISON	C	5
130-RAW MATERIAL STOCK LEDGER	C	3
130-REAL ESTATE ACCOUNTS - RECONCILIATION & SUPPORT	6M	3
130-RECORD (LOG) OF THE USE OF SEASON TICKETS	C	7I
130-REPORTS - QUARTERLY LUBRICANTS, OIL & GASOLINE	1	1
130-RETAILER OCCUPATIONAL USE TAX FORMS	C	6N
130-RETIREMENT ACCOUNT - WACHOVIA - RECON. & SUPPORT	6M	3
130-RETIREMENT INSURANCE & WORKPAPER REPORTS	5	P
130-ROYALTY REPORT - ANNUAL	C	25
130-ROYALTY REPORT - MONTHLY	1	1
130-ROYALTY REPORT - QUARTERLY	C	5
130-RUBBER PLATE MOLDED COSTS	C	5I
130-SALARIES & WAGE EARNED REPORTS	5	P
130-SALARY DISTRIBUTION TAPES	2	2
130-SALES & USE TAX ACCRUAL REPORTS - COPIES	C	7I
130-SALES TAX INFORMATION	2	7I
130-SHIPPING LOG - DAILY	6M	6M
130-SHOP ORDER REPORTS	2	5I
130-STANDARD COST REPORTS	1	5I
130-STANDARD COST REVISIONS (DETAIL) ANNUAL & INTERIM	2	2
130-STANDARD COST SHEETS	1	P

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130-ACCOUNTING

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
130-STANDARD COST TAPES - REPORTS 1, 3 - DEC. & JAN.	P	P
130-STANDARD COST TAPES - REPORTS 1, 3 - MO. FEB. - NOV.	1	1
130-STATEMENTS ON MICROFILM - CUSTOMER	6	7I
130-STEWARDSHIP REPORTS	C	2
130-STOCK PURCHASE ACCOUNT - RECON. & SUPPORT	6M	3
130-TALLEY WEIGHT STUBS - BILLING COPY	1	5I
130-TALLEY WEIGHT STUBS - SHIPPING COPY	6M	6M
130-TAPES - C-30	2	2
130-TAPES - 8000 BUDGET EXPENSE	10	10I
130-TEN NINTY-NINE FILE (1099)	A	7I
130-TIMBER ACCOUNTING SCHEDULES	25	25
130-TIME & PRODUCTION REPORTS - DAILY	1	3
130-TRANSFER ACCOUNT REPORTS (COPIES)	2	2
130-TRANSFER BILLINGS	1	1
130-TRAVEL & EXPENSE RECORDS	2	5I
130-TRAVEL & EXPENSE RECORDS - EXECUTIVE FILES	C	5I
130-TRIAL BALANCE - A/R & A/P DEPTS.	1	3
130-TRIP REPORTS	1	2
130-UNITS REPORTS (FORM 5701)	C	3
130-WAGE PAYMENTS, BENEFITS & SERVICE	10	P
130-WRITE-OFF OLD OUTSTANDING CHECKS AUTHORIZATIONS	2	2

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140-CREDIT UNION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
140-CREDIT UNION APPLICATION FOR SHARE WITHDRAWALS	1	6
140-CREDIT UNION APPLICATION FOR TRUST ACCOUNT	P	P
140-CREDIT UNION AUDIT REPORTS - SUPERVISORY COMMITTEE	2	P
140-CREDIT UNION AUTHORIZATION FOR APPL. SHARE TO LOANS	1	6
140-CREDIT UNION BANK DEPOSIT SLIPS	1	6
140-CREDIT UNION BANK RECONCILIATIONS	1	P
140-CREDIT UNION BANK STATEMENTS	1	6
140-CREDIT UNION BY-LAWS	P	P
140-CREDIT UNION CANCELLED CHECKS	1	6
140-CREDIT UNION CASH DISBURSED VOUCHERS	1	6
140-CREDIT UNION CASH RECEIVED FROM SALE OF BONDS	1	6
140-CREDIT UNION CASH RECEIVED VOUCHERS	1	6
140-CREDIT UNION CERTIFICATES AUTHORIZING CHANGE FUND	P	P
140-CREDIT UNION CERTIFICATION TO ACT AS ISS. AGENT OF US S	P	P
140-CREDIT UNION CHARTER	P	P
140-CREDIT UNION CHARTERS, AMENDMENTS, OR BY-LAWS	P	P
140-CREDIT UNION CHECK BOOK STUBS	1	6
140-CREDIT UNION DEDUCTION & FILES	X	X
140-CREDIT UNION DELINQUENT LOAN SCHEDULES	1	6
140-CREDIT UNION DIVIDEND RECORD	1	6
140-CREDIT UNION DOCUMENTS EVIDENCING THE INVEST. OF FUNDS	P	P
140-CREDIT UNION EXAMINCATION REPORTS REC'D FROM FCA,FIDC,E	1	6

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140-CREDIT UNION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
140-CREDIT UNION EXPENSE LEDGER	1	P
140-CREDIT UNION FINANCIAL & STATISTICAL REPORT - ANNUAL	P	P
140-CREDIT UNION FINANCIAL & STATISTICAL REPORT - MONTHLY	1	6
140-CREDIT UNION GENERAL CORRESPONDENCE	1	6
140-CREDIT UNION GENERAL LEDGER	1	P
140-CREDIT UNION GENERAL LEDGER TRIAL BALANCE	1	6
140-CREDIT UNION INDIVIDUAL SHARE & LOAN LEDGER	1	P
140-CREDIT UNION INVOICES PAID	1	6
140-CREDIT UNION JOINT SHARE ACCOUNT AGREEMENTS	P	P
140-CREDIT UNION JOURNAL & CASH RECORDS	1	P
140-CREDIT UNION JOURNAL VOUCHERS	1	6
140-CREDIT UNION LICENSE TO OPERATE UNDER REGULATION	P	P
140-CREDIT UNION LOAN APPLICATIONS	1	6
140-CREDIT UNION MINUTES OF MEETINGS - VARIOUS	1	P
140-CREDIT UNION PAID BILLS	1	6
140-CREDIT UNION PAID NOTES - COPY	7	7
140-CREDIT UNION PAYROLL DEDUCTION CARDS	1	6
140-CREDIT UNION PAYROLL DEDUCTION LISTS	1	6
140-CREDIT UNION PROOF TAPES - INDIVIDUAL SHARE & LOAN LEDG	1	6
140-CREDIT UNION RECORDS DESTROYED LISTING	P	P
140-CREDIT UNION REPORT	2	2
140-CREDIT UNION SIGNATURE CARDS - APPLI. FOR MEMBERSHIP	P	P

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140-CREDIT UNION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
140-CREDIT UNION SUPERVISORY COMMITTEE RECORD OF ACT VERFI.	P	P
140-CREDIT UNION U.S. SAVINGS BONDS RECEIVED RECORDS	1	6
140-EMPLOYMENT SAVINGS BOND AUTORIZATION CARDS	C	T1

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RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

150-TAXATION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
150-AUDIT DETAIL WORKPAPERS - TAX	C	5I
150-F.I.C.A. & FEDERAL INCOME TAX PAYMENT PAPERS	2	7N
150-FRANCHISE STATE & LOCAL TAXES - WORKPAPERS	3	5I
150-INCOME TAX RETURNS - FEDERAL	I	P
150-INCOME TAX RETURNS - LEGAL OFFICIAL COPIES	P	P
150-INCOME TAX RETURNS - ONIZED CLUB - PLANTS	C	5I
150-INCOME TAX RETURNS - SUPPORTING PRINTED SCHED.	C	5I
150-INCOME TAX RETURNS -WORKPAPERS	I	P
150-REAL ESTATE & PERSONAL PROPERTY - PAYMENTS	3	10
150-REAL ESTATE & PERSONAL PROPERTY-HISTORY,STATISTICS,ETC.	P	P
150-SECURITY TRANSACTIONS	C	5I
150-TAX - FIGURES BY LOCATION	C	7N
150-TAX - FIGURES ON RETAIL SALES	C	7N
150-TAX FORMS - 1099 - TOLEDO	3	5I
150-TAX INFORMATION - OVERSEAS (GOV'T REPORTS)	2	7I
150-TAX PAPERS - STATE	6	6N
150-TAX REPORTS - FEDERAL & STATE - ONIZED CLUB	6	6I
150-TAX REPORTS - FEDERAL HIGHWAY USE TAX	1	6I
150-TAX REPORTS - SALES & USE TAX	1	6N
150-TAX REPORTS - STATE DIESEL TAX	1	6N
150-TAX REPORTS - STATE WAGE	1	6N
150-TAX RETURNS - EXEMPT ORGANIZATIONS - ONIZED CLUB	C	6I

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150-TAXATION

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
150-TAXES - FEDERAL EXISE	1	5I
150-TAXES - FICA TELETYPE DEPOSITS - PLANTS	C	5I
150-TAXES - LOCAL LICENSE	2	6N
150-TAXES - REPORTING SERVICE	2	2
150-TAXES - SOCIAL SEC. RETURNS-STATE & FEDERAL	2	6I
150-TAXES - STATE & LOCAL - ACCRUAL WORKPAPERS	3	3N
150-TAXES - STATE FRANCHISE	2	6N
150-TAXES - WITHHOLDING PLUS SUPPORTING PAPERS	2	6I

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RECORDS RETENTION SCHEDULE
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

160-CREDIT

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
160-ADJUSTMENT FILES	2	4
160-AGENCY & ASSOCIATION REPORTS	3	3
160-ATTORNEY COLLECTION AGENCY & BANKRUPT FILES - ACTIVE	C	5I
160-ATTORNEY COLLECTION AGENCY & BANKRUPT FILES - AFTER PD.	C	5I
160-BAD DEBTS RESERVE	P	P
160-CLAIMS - CUSTOMER RETURN SLIPS	2	2
160-COLLECTION ACCOUNTS	5	5
160-COLLECTION CORRES. INVOLVING CUSTOMER, DIST., BANKS	C	AK
160-COLLECTION FILES - LETTERS OF TRANSITORY INTEREST	1	1
160-COLLECTION FILES - ORDER CORRES.	2M	2M
160-CREDIT ADJUSTMENTS 250S	1	1
160-CREDIT APPLICATION	1	6
160-CREDIT ASSOCIATION MEETINGS	1	1
160-CREDIT CURRENT REPORTS	1	1
160-CREDIT FILES (FINANCIAL STATEMENTS D&B,ETC)	3	3
160-CREDIT FILES BY CUSTOMER	A	A
160-CREDIT INFO. LETTERS - (MISC.) - PAST PAYM'T PERFORMANC	2	2
160-CREDIT INFO. LETTERS - BANK, SUPPLIER & REF. LETTERS	3	3
160-CREDIT PAST REPORTS	P	P
160-CREDIT PLANT REPORTS - YEAR-END	1	1
160-CREDIT PUBLICATIONS	A	A
160-CREDIT REFERENCE	A	A

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160-CREDIT

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
160-CUSTOMER CLAIMS - CLOSED - PLTS	1	2
160-CUSTOMER COMPLAINTS	1	2
160-DEDUCTION - OVERPYM'T (CHARGEBACKS)-A/R CENTRALIZED DIV	1	6I
160-DUN & BRADSTREET REPORTS	3	3
160-PERSONAL GUARANTEES - ORIGINAL COPIES	C	AF

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170-MISCELLANEOUS

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
170-AFFILIATE FILES - AGREEMENT	C	P
170-AFFILIATE FILES - GENERAL	C	P
170-AFFILIATE FILES - SPECIAL STUDIES	4	5
170-ARTICLES - APPROVED	2	7
170-BIOGRAPHIES & PHOTOS (DECEASED & RETIREES)	P	P
170-BOARD & MINUTES - DIVISION	1	1
170-BOARD OF COMMERCE - GREATER DETROIT	5	P
170-BULLETIN - ADMINISTRATIVE	1	1
170-BULLETIN - POLICY	A	A
170-BULLETIN - PROCEDURE	A	A
170-CHAMBER OF COMMERCE - TOLEDO AREA & JUNIOR	5	P
170-COMMUNITY RELATION ADVERTISING	2	5
170-CORRESPONDENCE - GENERAL	1	1
170-CROSS INDEX CARDS	P	P
170-IDEAL AREA ANALYSIS TAPES-GDA	1	5
170-LEGISLATIVE INFORMATION	2	2
170-MANUALS	A	A
170-MEETING - MINUTES, SCHEDULES, AGENDAS	1	2
170-MEETINGS - PRESENTATIONS, SPEECHES, CHARTS & SLIDES	1	2
170-MICROFILM LOGS	P	P
170-MISCELLANEOUS DOCUMENTS REQUIRED BY IRS	C	5I
170-MISCELLANEOUS FILES, STUDIES, PROJECTS, REPORTS, ETC.	5	5

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170-MISCELLANEOUS

DESCRIPTION	RETAIN IN OFFICE	RETAIN TOTAL YEARS
170-NATIONAL PETRO - CHEMICAL CO.- SUBJECT FILES	1	3
170-O.I.D.C. FILES - HIGH VALUE LANDS - ALL AREA	3	5
170-ORANGE MILL HISTORICAL FILES	5	P
170-PLOT PLANS	A	A
170-PREVENTATIVE MAINTENANCE BLDG. SYSTEMS FILES	5	5
170-PROJECT FILES COMPLETED - PUBLIC AFFAIRS	3	3
170-RESEARCH (O-I HISTORY)	P	P
170-STANDARD RESEARCH INSTITUTE REPORTS	A	A
170-TRAINING MATERIAL	A	A
170-WORK ORDERS (PREVENTATIVE MAINTENANCE)	1	1

EXHIBIT IV

Leonard Bros.

RECORD SERVICE CENTER

324 Chestnut Street
Toledo, Ohio 43604
(419) 243-7392

2937 General Motors Blvd. East
Detroit, Michigan 48202
(313) 872-8300

CONFIDENTIAL

DATE: _____

CLIENT: _____

DEPARTMENT: _____

CODE NUMBER: _____

The following personnel are authorized to reference the information managed by Leonard Bros. Record Service Center.

	NAME (PLEASE PRINT OR TYPE)	SIGNATURE	
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

AUTHORIZED BY: _____

TITLE: _____

EXHIBIT V

CONFIDENTIAL

Leonard Bros.
RECORD SERVICE CENTER

324 Chestnut Street
Toledo, Ohio 43604
(419) 243-7392

SERVICE REQUISITION

DATE REQUESTED ✓	CLIENT	DIV. ✓	DEPT ✓	PHONE ✓	LOC./FLOOR ✓	DATE RETURNED
REQUESTOR ✓	DEPARTMENT	REQUEST RECEIVED BY ☐ Phone ☐ Mail ☐ Client Visit			REQUEST RETURNED BY ☐ Mail ☐ Client Visit ☐ Messenger	
DISPATCHED BY ☐ Phone ☐ Mail ☐ Client Visit ☐ Messenger ☐ Emergency Delivery					XC ☐ FAC ☐	MANAGER

R C BOX NO	RECORD NO / DESCRIPTION	TEMP BOX NO	LOCATION	ACTIVITY
✓	✓			

Signature ✓

PART I — LBRSC PART II — CLIENT

EXHIBIT VI

OAMA RECORD RETENTI DESTROY SCHEDULE DATE 04/03/85 AGE: 1

DIVISION 01
LOCATION 1090

****
*
* LISTED FOR YOUR DEPARTMENT ARE THE RECORDS BOXES DATED FOR DESTRUCTION. *
* PLEASE APPROVE FOR DESTRUCTION BY ENTERING A CHECK MARK IN DESTROY *
* COLUMN OR ASSIGN A NEW DESTRUCTION REVIEW DATE. *
*
****

DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	16877	06-02-54	ANNUAL PLANS - 1977 - ALL DIVISIONS * NO	01/04/80	01/85	
( )	RC	08019	02-11-44	TV SEALING OPERATION INT'L DIV TRADING C	02/18/80	02/85	
( )	RC	21764	09-03-55	M-1 POSS SYNERGISM-M-1 MEET CASTAL 08/78	03/29/82	03/85	
( )	RC	21766	09-03-55	#3 M-2 PROD LINES-M CANDIDATES OTHER	03/29/82	03/85	

AUTHORIZED SIGNATURE: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

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EXHIBIT VII

OUT CARD

LOCATION: BOX NUMBER _____

SECTION NUMBER _____

SHELF NUMBER _____

BIN NUMBER _____

DEPT. BOX NUMBER _____

DIV. & DEPT. NUMBER _____

SENT TO _____

DATE SENT _____

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SECTION 2

RECORDS MANAGEMENT ADMINISTRATION

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2. RECORDS MANAGEMENT ADMINISTRATION

2.1 RECORDS COMMITTEE

The Records Committee is responsible for administering the records management program, for continuing review of retention schedules, and for approving retention periods. The Committee will meet periodically at the discretion of Management to fulfill its responsibilities. The Committee will consist of representatives from the Legal, Tax, Corporate Accounting Department, the Consolidated Services Division, and from the operating divisions as designated by those units. The members of the Committee are:

Karen B. Wasil - Legal
Mark E. Songer - Tax
Joe P. DeToto - Corporate Accounting
Bill L. Sevey - Consolidated Services Div.

2.2 DIVISIONAL RECORDS PROGRAM COORDINATORS

Divisional records management efforts are monitored by specific individuals designated as Divisional Records Program Coordinators. These individuals are assigned the task of organizing and directing the records management program within their respective divisions. Generally, their responsibilities include the following:

1. Assuming responsibility for the functioning of the Divisional records program, which encompasses such activities as assisting Divisional personnel on questionable matters and representing their Division in Records Committee proceedings.

2. Periodically updating Divisional management as to the condition of their Divisional records program.

3. Assuring that the Records Retention Manual accurately and concisely reflects the records maintained in their Division.

Listed below are the current Divisional Records Program Coordinators:

DIV	NAME	LOCATION	PHONE EXT.
KIM	G. J. Sheline	22-WHB	2055
FPD	D. L. Campbell	20-WHB	1531
CSD	E. R. Carr	5-WHB	2474
CS	M. Sparrow	5-WHB	2823
GCD	B. G. Aughenbaugh	26-WHB	2087
LIB	L. Michoff	17-WHB	5241
CLO	T. Robinson	24-WHB	5211
CPD	T. Robinson	24-WHB	5211
PPD	T. Robinson	24-WHB	5211
TV	J. G. Rutkowski	19-WHB	2092

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2.3 RECORDS MANAGEMENT OPERATIONS

Coordination of the off-site Record Center is a function of JoAnn Takats, Records Administrator. The primary objective is to ensure that adequate facilities and procedures are maintained for proper storage of Owens-Illinois' records.

Physical storage of Owens-Illinois records is in the facility of Leonard Bros. Record Service Center managed by John Zimmerman.

On page 22, Exhibit VIII, is an organization chart depicting where Owens-Illinois records management departments are placed within the Consolidated Services Division.

As the Records Administrator, JoAnn Takats is also responsible for coordinating the activities of the divisional records representatives, assisting the Records Committee, administering the record destruction program, and maintaining and publishing records retention schedules.

The Leonard Bros. Record Center facility is located at 324 Chestnut Street, Toledo, Ohio. Inquiries regarding items in storage, or to be stored, should be directed to JoAnn Takats.

2.4 RECORDS RETENTION SCHEDULE CHANGES

Any additions, changes, or exceptions to the records retention schedules included in this manual must be submitted in writing to the Records Administrator - JoAnn Takats. Additions will appear in a consolidated format which is illustrated in this manual.

Changes to the schedules will be reviewed by the Records Committee prior to their incorporation into the manual. The requester will be notified of the Committee's determination regarding approval of any changes to the manual.

Revised retention schedules inclusive of all approved changes will be distributed at least once a year, or whenever the volume of changes would require the publication of a revised schedule. Between revisions, notices will be distributed listing any changes to the current schedule.

EXHIBIT VIII

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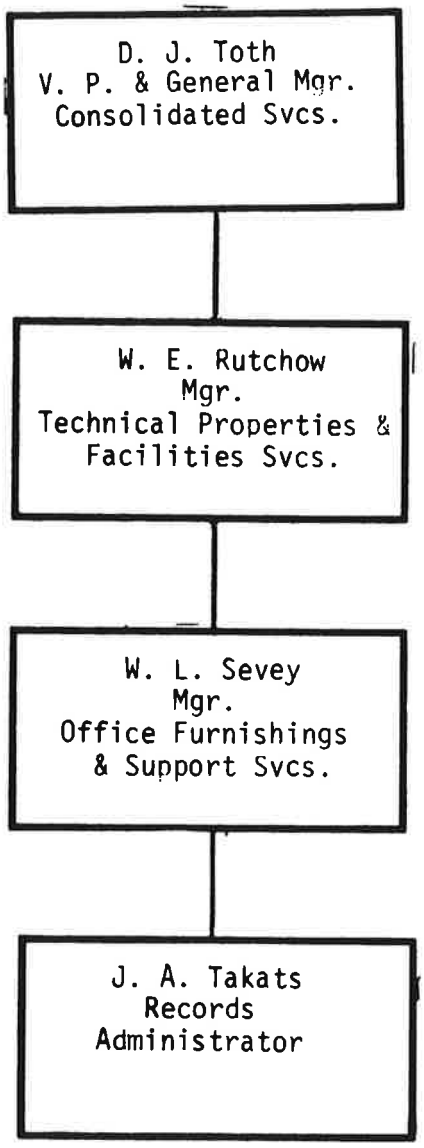
CONSOLIDATED SERVICES
RECORDS MANAGEMENT



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SECTION 3

RECORDS RETENTION SCHEDULES

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3. RECORDS RETENTION SCHEDULES

3.1 SPECIAL NOTES

OPEN TAX YEARS

The Internal Revenue Service requires taxpayers to keep such permanent books of account or records, including inventories, as are sufficient to establish the amount of gross income, deductions, credits or other matters required to be shown on the income tax return. Records of property must be maintained until a taxable disposition is made. Records relating to income, deductions and credits must be maintained for the statute of limitations.

It is vitally important that all records identified with an IRS (I) code be retained for open tax years. For example, if a record is coded 7I, the record must be held 7 years. If IRS has not closed tax year within 7 years of the record, then it must be held until the tax year is closed. When IRS closes an audit year, a records management bulletin will be issued to inform all locations that records for the closed years can be destroyed.

Current open tax years are 1978 to present. Effective June 1984 the Tax Department officially released tax years 1972 through 1977 with the exception of the records listed in Records Management Bulletin #1. These records are needed to support positions on refund claims, appeals, and tax court cases with total tax controversy of several million dollars. These exceptions must be retained until the claims, etc. are resolved. Tax Department will issue additional releases when this occurs.

If you have specific questions on the open tax years, contact the Tax Department.

RECORDS RETENTION - LIFO INVENTORY METHODS

The recent accounting change to LIFO inventory methods requires the retention of all back inventory records for those inventories that are valued by this method. The records as of December 31, 1973 and December 31, 1974, and all subsequent year-end information must be retained PERMANENTLY.

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The following is a list of the type of records which must be retained:

1. All year-end inventory records, including batch books, card files, computer listing, etc.

2. All standard cost rate calculations and applications.

3. All magnetic computer tapes, which may apply to any of the above.

GENERAL STATEMENT ON PERMANENT ACCOUNTING RECORDS

Accounting records are retained based upon the statute of limitations contained in a number of Federal and State regulations, administrative branch decisions and the desires of management. In summary, certain broad records classifications can be made and general retention periods assigned. Obviously, accounting requirements can be superseded by tax or legal restrictions.

General ledgers, journals, balance sheets, P & L statements, inventory records (LIFO, fixed assets) and depreciation schedules must have a permanent retention period.

LEGAL RETENTION PERIOD FOR DOCUMENTS - STATUTES OF LIMITATIONS

Written Obligations:
Written obligations of the Company, such as contracts, should be retained for a period of 20 years following performance of the written obligations. If a contract contains a clause specifying it is governed by Ohio law, it need only be retained 15 years following performance of the written obligations.

Oral Obligations:
Significant documents pertaining to oral obligations should be retained six years following the making or acknowledgment of the oral obligation.

Personal Injury:
All reports or significant materials relating to personal injury should be retained for three years following the occurrence of the injury. Generally, if the alleged injury took place in Ohio and the parties involved were Ohio residents or domiciled in Ohio, the retention period would be 2 years following the occurrence of the injury.

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Damages For Personal and Real Property:
All reports or significant materials relating to damages to personal property should be retained for a period of six years following the alleged sustaining of the damage.

Litigation/Investigations:
Any records relating to litigation, a government investigation, or charges filed with or by government agencies (EEO, OSHA, FLSA, ERDA, etc.) must not be destroyed until all action relating to them has been resolved and the Legal Department approves destruction.

Electronically Stored Data:
Electronically stored data should be retained for the corresponding period applicable to its retention in hard copy form.

3.2 FORMAT

The records retention schedules in this manual are presented in two formats for your ease of use.

Section A - Categorical

Records are classified into 17 major functional categories and are presented alphabetically within each. A complete category listing is found on page 27. Retention requirements follow each record. The first column represents the recommended period of time the record should be maintained in the office. However, these storage periods may vary based upon management discretion and available storage space in departments. The second column signifies the total retention period for the record (which includes office retention time in Column 1). The total retention period has been reviewed and approved by the Records Committee and is based upon requirements of the IRS, the statute of limitations of various laws and regulations, and sound business practices. Certain retention requirements are shown as alpha characters. A listing explaining these alphabetical codes is on page 28.

Section B - Alphabetical

All records found in Section B are arranged in alphabetical sequence and by category number. The category number refers to the location of the record in Section A.

Note: When using these listings, refer to the item description which most closely identifies the subject record. Specific descriptions of a record vary by location; and exact record titles may not be included in this retention schedule. Please refer any questions regarding record description clarification to your immediate supervisor, or the Records Administrator.

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3.3 RECORDS RETENTION CATEGORIES

10 - PROPERTY

20 - PAYROLL

30 - BANKING

40 - PERSONNEL

50 - SAFETY, SECURITY & PLANT PROTECTION

60 - FINANCE

70 - RESEARCH, DEVELOPMENT & ENGINEERING

80 - PURCHASING, MATERIAL CONTROL & TRANSPORTATION

90 - SALES & SERVICE

100 - PRODUCTION

110 - LEGAL

120 - ADMINISTRATION

130 - ACCOUNTING

140 - CREDIT UNION

150 - TAXATION

160 - CREDIT

170 - MISCELLANEOUS

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3.4 RECORDS RETENTION CODE LISTING

* Send To Legal For Review Before Destroying
A Current
B Current + Previous
C Discretion of Management
D Death
F Until Obsolete
G 4 Years After Obsolete
H Until Scrapped
I IRS & Destroy
J Until Cancelled
K Until Expired
L Until Released by Legal Department
M Months
N Hold Until Tax Department Releases
P Permanent
Q 1 Year After Conversion Completed
R 1 Year After Revision
S Duration of Employment Plus 30 Years
T Termination
U Terminated + 6 Months
V Most Recent Final - 3 years From Termination
W After Property is Relinquished or Building Demolished
X Reference
Y Until 1 Change
Z Until 2 Changes
AA Last Audit
AB Until Completed
AC 2 Years After Completed
AD 2 Years After Scrapped
AE Return at Hire
AF As Long as in Effect
AG 1 Year Beyond Close of Matters
AH 1 Year Beyond Running of Statute of Limitations
AI 7 Years After Property Vacated
AK Until Collected
AL Until Paid in Full, Settled or Written Off
AM 15 Years From Date Note Paid
AN Destroy After Deduction Stops
AO Until Receipt of Written Notice of Compliance
AP 2 Years After Settlement or Other Disposition
AQ 5 Years After Loan is Liquidated
AR Evidence of Payment in Full Must Be Retained for Full 15 Years From Date Paid Including Note Itself
AS 20 Years After Date of Cancellation
AU Decision of Secretary
AW 30 Years After Such Effects Are First Reported On
AX Duration of Equipment Or Operation
AZ 5 Years After Facility No Longer Used Except In Case of Chemical Waste Landfills the Documents Shall Be Maintained for 20 Years After Facility No Longer Used for PCB Items
BA 3 Years From Date of Last Shipment
BB 1 Year + January-November, Current Year 2 Years
BC 6 Years After First Reporting
BD Indefinite
BE 10 Years After Expiration of Contract or Obligation

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SECTION B
RECORDS RETENTION ALPHABETIC INDEX
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

DESCRIPTION	CATEGORY NUMBER
- A -	
A.F.G.W.U. WAGE CONFERENCE GBBA	40
ABSENCE/ATTENDANCE RECORDS	40
ABSTRACTS (SHIPPING DOCUMENTS)	90
ACCEPTANCE QUALITY LEVEL (AQL)-SAMPLING PLANS	50
ACCEPTANCE SAMPLING & PPS PLANS BY CUST.	100
ACCEPTANCE SAMPLING CORRESPONDENCE - GENERAL	100
ACCIDENT RECORDS COMPENSABLE ACC. REPORT-NOT LOST	50
ACCIDENT RECORDS LOST TIME ACCIDENT REPORT	50
ACCIDENT RECORDS SUPERVISORS REPORT OF ACCIDENT	50
ACCOUNTING RESERVES - DETAIL FILES	130
ACCOUNTS (MAJOR) - U.S. FOREIGN	90
ACCOUNTS PAYABLE ACCTS - RECONCILIATION & SUPPORT	130
ACCOUNTS PAYABLE BATCH CONTROL FILE	130
ACCOUNTS PAYABLE CORRECTION INPUT BATCHES	130
ACCOUNTS PAYABLE DISTRIBUTION JOURNALS	130
ACCOUNTS PAYABLE FLASH TARGETS	130
ACCOUNTS PAYABLE MICROFICHE FILE - DISBURSE.JOURNAL,MO.	130
ACCOUNTS PAYABLE MICROFICHE FILE - PURCHASE JOURNAL,MO.	130
ACCOUNTS PAYABLE SYSTEM CONTROL FILE (HASP LISTINGS)	130
ACCOUNTS PAYABLE TRIAL BALANCE	130
ACCOUNTS PAYABLE VENDOR FILE MAINTENANCE FORMS	130
ACCOUNTS PAYABLE VENDOR MASTER CODE BOOK	130
ACCOUNTS PAYABLE YEAR END AUDIT REPT'S PURCHASE CUT-OFF	130

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DESCRIPTION	CATEGORY NUMBER
- A -	
ACCOUNTS RECEIVABLE AGE ANALYSIS	130
ACCOUNTS RECEIVABLE ATTORNEY LEDGERS	130
ACCOUNTS RECEIVABLE CUSTOMER HISTORIES	130
ACCOUNTS RECEIVABLE DAILY REGISTERS	130
ACCOUNTS RECEIVABLE DATA PREP CONTROL SHEETS	130
ACCOUNTS RECEIVABLE LISTING DAILY	130
ACQUISITIONS , DISSOLUTION & MERGERS	130
ACTIVE LOADING PATTERNS FOR RETURN/NON-RETURN BOTTLES	100
ACTIVITY FILE - MANUFACTURING-SALES &MARKETING REPORTS	100
ACTIVITY LISTING - MONTHLY & ANNUAL - PLT	10
ACTIVITY LISTINGS (ANNUAL SUMMARIES)-DIV	10
ACTIVITY SALES REPORT - INVOICES PROCESSED	130
ADJUSTMENT FILES	160
ADVERTISING AND PROMOTION LITERATURE	90
ADVERTISING REPRINTS	90
AFFILIATE FILES - AGREEMENT	170
AFFILIATE FILES - GENERAL	170
AFFILIATE FILES - SPECIAL STUDIES	170
AFFILIATE PAYMENT CERTIFICATES	130
AFFILIATE STATEMENTS - YEAR-END- A/R DECENTRALIZED DEPT	130
AFFIRMATIVE ACTION PROGRAM	40
AGENCY & ASSOCIATION REPORTS	160
AGENCY SCHEDULE CHANGES (SERVICE & FIELD)	90

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RECORDS RETENTION ALPHABETIC INDEX
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

DESCRIPTION	CATEGORY NUMBER
- A -	
AGENT AGREEMENTS - DEALER	90
AGREEMENTS - CANCELLED (PATENTS)	110
AGREEMENTS - DEALER & FAIR TRADE	90
AIR PERMITS - ALL EMISSIONS MEASUREMENTS	50
AIR PERMITS - EMISSION CONTROL EQUIP. MAINTENANCE RECOR	50
AIR PERMITS - MONITORING DEVICES	50
AIR PERMITS - ORIGINAL APPLICATIONS & DIAGRAMS	50
AIR PERMITS - RECORDS OF DATE & LENGTH OF START-UP	50
AIR PERMITS - RECORDS OF SHUTDOWN OR MALFUNCTIONS	50
AIR PERMITS - RENEWAL NOTICE & PAYMENT VERIFICATIONS	50
AIR PERMITS - VARIANCE RECORDS	50
ALIEN TRAINEES - REGARDING IMMIGRATION TAX HANDLING	40
AMEX ACTIVITY BY ACCOUNT - REPORT 45 - FICHE	130
AMEX ACTIVITY BY P.C.R. - REPORT 46 - FICHE	130
AMEX AMERICAN EXPRESS STATEMENTS	130
AMEX CARDHOLDER LIST BY DIVISION & NAME	130
AMEX CARDHOLDER LIST BY NAME	130
AMEX CARDHOLDER LIST BY NUMBER	130
AMEX COPY OF PETTY CASH REPORT	130
AMEX HARD COPIES OF CHARGES	130
AMEX HARD COPY STATUS & EDIT REPORTS - FICHE	130
AMEX HISTORY	130
AMEX JOURNAL ENTRY DETAIL	130

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RECORDS RETENTION ALPHABETIC INDEX
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

DESCRIPTION	CATEGORY NUMBER
- A -	
AMEX JOURNAL ENTRY DETAIL - REPORT 55	130
AMEX LOGS TO AMERICAN EXPRESS	130
AMEX MATCHED HISTORY - FICHE	130
AMEX MONTHLY CORRECTIONS	130
AMEX NOTIFICATION CARDS & CANCELLED CARDS	130
AMEX NOTIFICATION OF CARD STATUS	130
AMEX NOTIFICATION OF LOST/STOLEN CARDS	130
AMEX O/S HARD COPY BY DIV. & BY DIV SUMMARY - FICHE	130
AMEX OPEN ITEM REPORTS	130
AMEX PAYMENT DETAIL	130
AMEX RECONCILIATIONS BY ACCOUNT	130
AMEX RECONCILIATIONS BY DIVISION	130
AMEX REPORT OF HARD COPY-60 DAYS OLD CARDHOLDER	130
AMEX TISSUE STATUS & EDIT REPORT - FICHE	130
AMEX TISSUES EXPENSED	130
AMEX VENDOR ANALYSIS RECAP	130
AMEX VENDOR ANALYSIS REPORT	130
ANALYSIS OF FIXED ASSET ADDITIONS - DIV. ACCT'G	10
ANALYSIS OF SALES BY CUSTOMER - DECEMBER	90
ANALYSIS OF SALES BY CUSTOMER - MONTHLY	90
ANNUAL REPORTS - O-I - WORKPAPERS & BACKUP	60
ANNUAL REPORTS - OUTSIDE CO.	60
ANNUAL STOCKHOLDERS MTGS. - AGENDAS	60

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DESCRIPTION	CATEGORY NUMBER
- A -	
ANNUAL STOCKHOLDERS MTGS. - ATTEN. CARDS & RELATED MTLS	60
ANNUITANT INDIVIDUAL FILE -SERVICE	40
ANNUITANT REGISTERS - MONTHLY	40
ANNUITANT REGISTERS - YEAR END	40
ANNUITANT SIGNATURE CARDS	40
ANTI-TRUST CORRES. E.G INVOLVING COMPETITORS, ETC.	100
ANTITRUST APPRAISAL FORMS	110
ANTITRUST COMPLIANCE CERTIFICATES	110
ANTITRUST COMPLIANCE SPEECHES	110
ANTITRUST NOTES FROM APPRAISAL MEETINGS	110
APA HARVESTING RESEARCH PROJECT	100
APPLICATION FOR EMPLOYMENT - ACTIVE	40
APPLICATION FOR EMPLOYMENT - INACTIVE	40
APPLICATION LOG	40
APPLICATION SYSTEM DOCUMENTATION	120
APPLICATIONS & CONTRIBUTORY PLAN REFUSALS	40
APPRAISAL REPORTS (CURRENTLY OWNED FACILITIES)- CORP	10
APPRENTICESHIP RECORD	40
APPROVALS - EXPEDITURES	10
ARBITRATION CASES	40
ART IDEA FILE - CLIPPINGS	70
ART WORK & REFERENCE BOOKS - LIBBEY	70
ART WORK - CUSTOMER	70

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DESCRIPTION	CATEGORY NUMBER
- A -	
ART WORK FOR SLIDE PRESENTATIONS	70
ARTICLES - APPROVED	170
ASBESTOS DEMOLITION & RENOVATION DISPOSAL RECORDS	50
ASBESTOS DEMOLITION & RENOVATION NOTIFICATION RECORDS	50
ASBESTOS USAGE & WAIVERS	50
ASSEMBLIES & COMPONET PARTS FOR BC-3 MACHINE	70
ASSEMBLY & PARTS LIST - MISC.	70
ASSET PRESENTATIONS - RETURNS	60
ATTENDANCE RECORD BOOK	20
ATTORNEY COLLECTION AGENCY & BANKRUPT FILES - ACTIVE	160
ATTORNEY COLLECTION AGENCY & BANKRUPT FILES - AFTER PD.	160
ATTORNEY FILES - OPEN/CLOSED	110
AUDIO-METRIC TESTING RECORDS	40
AUDIT DETAIL WORKPAPERS - TAX	150
AUDIT QUALITY REPORT	130
AUDIT REPORT - LOCATION & DEPT. COPY	130
AUDIT REPORTS - AUDIT DEPT. COPY	130
AUDIT REPORTS - PUBLIC AUDITORS	130
AUDIT WORKING PAPERS	130
AUDITS - BRANCH PERFORMANCE (ORIGINALS)	90
AUTHORIZATION FOR CASH ADVANCES	30
AUTOMOBILE EXPENSE WORKSHEETS (FLEET COOR. RETAIN)	130
AUTOMOBILE RECORDS - LEASED	130

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SECTION B
RECORDS RETENTION ALPHABETIC INDEX
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

DESCRIPTION	CATEGORY NUMBER
- A -	
AVON GENERAL FILES	90
AWARDS & MISC. PAYMENT REPORTS	20
- B -	
B-W & NMER 703 - ORIGINALS	70
BAD DEBTS RESERVE	160
BALED WASTE TICKETS MATCHED	100
BALER REPORT DAILY CARTON SCRAP RECORD	100
BANK ACCOUNT FILES - CLOSED	30
BANK ACCOUNTS SIGNATURE AUTHORIZATIONS	30
BANK AUTHORIZATION & CORRES.	30
BANK DEPOSIT SLIPS	30
BANK LEDGERS	30
BANK LEDGERS - MONTHLY PENCIL COPIES "GREEN BACK"	30
BANK RECONCILIATIONS,BANK STATEMENTS & SUPPORTING PAPER	30
BANK TRANSFER DIAGRAMS - DAILY	30
BANKING RELATION TRANSACTIONS - RECON DETAIL	130
BC-11 FILE - SPECIAL MACHINE DEVELOPING	70
BEKUM FILE - CORRES. & PRINTS	70
BEKUM MACHINE - RECORDS OF JOB FILES	70
BEKUM MACHINE - TRAINING MATERIAL - MASTER MANUALS	70
BEVERAGE FRANCHISE REPORT	90

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DESCRIPTION	CATEGORY NUMBER
- B -	
BILLING SUMMARIES - DAILY	130
BILLS OF LADING	80
BILLS OF MATERIAL (BOOKS)	70
BIOGRAPHIES & PHOTOS (DECEASED & RETIREES)	170
BIRTH RECORD	40
BOARD & MINUTES - DIVISION	170
BOARD OF COMMERCE - GREATER DETROIT	170
BOARD REPORTS	60
BONUS DATA ALL OTHER BONUS PAPERS	130
BONUS DATA FOR FORMING DEPARTMENTS	130
BONUS FORMING CARDS	130
BONUS MONTHLY REPORTS	130
BONUS PLAN	90
BOOK & FINISH PRINTS (COPIES)	100
BOOKLETS - HISTORICAL (NEW ENGLAND GLASS CO.)	90
BOTTLE & FILLED PACKAGE INVENTORY TAPES - JAN.-DEC.	130
BOTTLE COST ESTIMATES FOR MOLD NO.	130
BOTTLE DESIGN PRINTS	90
BOTTLE DRAWINGS WITH MOLD NO.	70
BOTTLE DRAWINGS WITH MOLD NO.-RETURNABLE & PLASTI-SHIEL	70
BOTTLE FINISHES DATA-REFERENCE MATERIAL	70
BOTTLE MACHINE LINE-UP	100
BOTTLE PRINTS (COPIES) RELATED TO DESIGNS	70

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RECORDS RETENTION ALPHABETIC INDEX
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

DESCRIPTION	CATEGORY NUMBER
- B -	
BOTTLE REPORTS - DEC. Y.T.D.	130
BOTTLE TAPES - DAILY TRANSACTION	130
BOX PLANT DETAIL SHIPMENT TAPES	130
BROCHURES & CORRES. WITH VENDOR ON EQUIPMENT COST	70
BUDGETS - ANNUAL BUSINESS & SUPPORT	130
BULLETIN - ADMINISTRATIVE	170
BULLETIN - POLICY	170
BULLETIN - PROCEDURE	170
BUSINESS ANALYSIS FILES	60
BUSINESS OBJECTIVES & PLAN	70
- C -	
C.C.S. LABORATORY TESTING PROJECTS	70
CAPITAL APPROPRIATIONS - PLANNED	10
CAPITAL BUDGETS	130
CAPITAL EXPEDITURES SYSTEM SOURCE DOCUMENTS	10
CAPITAL EXPENDITURE LIST - ALL DIVISIONS	10
CAPITAL PLAN COMPUTER TAPES	10
CAPITOL EXPENDITURES UNDER 25,000 REPORT - PLT	10
CARDS - CHANGE NOTICE (DESC. OF CHANGE IN DRAWINGS)	70
CAREER PROFILE	40
CARTON ASSEMBLY & REFERENCE REPORTS	70

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RECORDS RETENTION ALPHABETIC INDEX
APPROVED BY RECORDS COMMITTEE, AUGUST 1985

DESCRIPTION	CATEGORY NUMBER
- C -	
CARTON SPECIFICATION	100
CARTONS - GLASS SOLD (TAPES) - MONTHLY REPORT	130
CARTONS - GLASS SOLD (TAPES) - QUARTERLY REPORT	130
CARTONS - GLASS SOLD (TAPES) - SEMI-ANNUAL REPORT	130
CARTONS - GLASS SOLD (TAPES) - YEAR-END REPORT	130
CARTONS - ORDER RECORDS	100
CASH BOOKS, RECEIPTS & DISBURSEMENTS	30
CASH DISBURSEMENTS	130
CASH RECEIVED RECORDS - ACCTS. RECEIVABLE DEPTS.	130
CASH RECEIVED RECORDS - PETTY CASH	130
CASH REGISTER - DAILY	130
CASH WORKPAPERS FOR PURCHASE OF PREFERRED SHARES	60
CASHIER ACCOUNT - RECONCILIATION & SUPPORT	130
CASUALTY INSURANCE	60
CATALOG AUTHORIZATIONS	90
CATALOG OF PARTS & EQUIPMENT - VENDOR	90
CATALOGS - COMPETITORS	90
CATALOGS - COPIES	90
CATALOGS - ISSUER	90
CENSUS AND SURVEYS	40
CENTER TICKETS	100
CENTRAL HOURLY PAYROLL - RECON. & SUPPORT	130
CER-VIT MOLD PROCUREMENT COVER LIDS	90

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DESCRIPTION	CATEGORY NUMBER
- C -	
CER-VIT PRODUCTS - LITERATURE	90
CERTIFIED & REGISTERED INSURED POST OFF. RECPTS.& BOOKS	120
CHAIRMAN REPORTS	60
CHAMBER OF COMMERCE - TOLEDO AREA & JUNIOR	170
CHANGE OF ADDRESS	40
CHANGE OF BENEFICIARY REQUEST	40
CHECK AUTHORIZATION REQUEST - FORM 518	130
CHECK LIST & PIN LISTS - PLT	10
CHECK REGISTERS - CASH BOOKS - ONIZED CLUB	130
CHECK REQUISITIONS - SALARY PAYROLL	20
CHECK STUBS - PLANTS	30
CHECKS - MOLD & CONTAINER - PRINTS & CORRES.	70
CHECKS - PAID - CANCELLED OR VOIDED	30
CHECKS - REGISTER	20
CHECKS AUXILIARY (FORM 3699)	20
CLAIMANT FILE ON LEGAL CLAIMS AGAINST OI	110
CLAIMS - CUSTOMER RETURN SLIPS	160
CLAIMS - GROUP INSURANCE - SETTLEMENT OF CLAIMS	40
CLAIMS - PAID - (PERSONNEL DEPT)	40
CLAIMS - PERMANENT TOTAL DISABILITY	40
CLAIMS - RETIREE	40
CLIP ART BOOKS	90
CLOCK CARDS STATE OF CALIFORNIA ONLY	20

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DESCRIPTION	CATEGORY NUMBER
- C -	
CLOSING FILES - MONTHLY	130
CLOSING FILES - YEAR-END	130
COLLECTION ACCOUNTS	160
COLLECTION CORRES. INVOLVING CUSTOMER, DIST., BANKS	160
COLLECTION FILES - LETTERS OF TRANSITORY INTEREST	160
COLLECTION FILES - ORDER CORRES.	160
COLLEGE RECRUITING REPORTS BASIC DATA	40
COMMENTS - DESIGNS	70
COMMERCIAL OFFICE LEASES - ACTIVE	110
COMMISSION STATEMENTS	90
COMMUNICATION PLANS - DATA PROCESSING	120
COMMUNITY RELATION ADVERTISING	170
COMPARATIVE PERFORMANCE & OPERATING STATISTICS	60
COMPARATIVE SHIPMENT REPORTS - MONTHLY	130
COMPARATIVE SHIPMENT REPORTS - YEAR-END	130
COMPARISON OF PACK & CASE PERFORMANCE	100
COMPENSATION GENERAL FILES	40
COMPETITIVE CONTACT FORMS & CORRESPONDENCE	110
COMPETITIVE CONTACT LOGS (CUST.-COMPETITOR SITUATIONS)	110
COMPETITIVE REPORTS & SUMMARIES	90
COMPETITOR ANALYSES	60
COMPLAINT SUMMARIES - YEAR-END	100
COMPLETED APPROPRIATION REPORTS- DIV & CORP	10

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DESCRIPTION	CATEGORY NUMBER
- C -	
COMPUTER LIBRARY DIRECTORIES	120
COMPUTER M.A.P.S. REPORTS	90
COMPUTER SYSTEMS MECHANICAL EQUIP. BOOKLET REPORT	100
COMPUTER TAPES TO SUPPORT MONTHLY PAYROLL REPORTS	20
COMPUTER TECHNIQUES (VARIOUS)	120
CONFIDENTAL DISCLOSURE RECORD - AFTER DROPPING- PATENT	110
CONSOLIDATED FIXED ASSET SCHEDULES (A-18, & AA-18)-CORP	10
CONSTRUCTION CONTRACT EXCERPTS - CORP	10
CONSTRUCTION IN PROGRESS REPORT	10
CONSTRUCTION OR EXPANSION PROJECTS - WORKPAPERS-AUDIT	10
CONSTRUCTION WORKPAPERS - AUDIT PAPERS	10
CONSULTANTS & COURSES OUTSIDE TRAINING MATERIAL	40
CONSUMER ANALYSIS REPORTS	90
CONSUMER LETTERS ON LIBBEY GLASSWARE	90
CONTAINER BOARD BILLING - FPD	130
CONTINGENCY PROVISION	130
CONTINUOUS THREAD PRODUCT FILE	90
CONTRACTS - AETNA - O-I	40
CONTRACTS - CUSTOMER BID PROPOSALS	90
CONTRACTS - PRIVATE TRUCKING OPERATING	40
CONTRIBUTIONS & DUES LISTS	130
CONTRIBUTIONS - CARDS	130
CONTRIBUTIONS - CORPORATE	130

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DESCRIPTION	CATEGORY NUMBER
- C -	
CONTRIBUTIONS - DEDUCTION REPORTS (OUTPUT)	20
CONTRIBUTIONS - MATCHING GIFTS	40
CONTRIBUTIONS - PLANT DEDUCTION SHEETS (INPUT)	20
CONTRIBUTIONS - TOLEDO UNITED WAY CARDS	20
CONTROL BOOKS - CONVERTING	130
CONTROL BOOKS - SALARY PAYROLL	20
CONTROL BOOKS - WOOD PRODUCTS	130
CONTROL NUMBER SHEETS - 901, WORK & SHOP ORDERS	10
CONTROL SHEETS	40
CORPORATE OFFICER INCENTIVE PLAN (COIP)	20
CORPORATE PRINT OUT - FORM GC 2533	20
CORPORATIONS TOP 200	60
CORRESPONDENCE - GENERAL	170
CORRESPONDENCE - UNRELATED TO LIGITATION	110
CORRUGATED - CARTON DIFFERENTIAL	90
CORRUGATED DEPT. COST ACCOUNTS	130
CORRUGATED PACKAGING "BACK TO BASICS"	70
CORRUGATED PRODUCT DETAILS - MONTHLY TAPES	100
CORRUGATED RUN SHEETS	100
CORRUGATED SPECIFICATION CARDS	70
CORRUGATED STATISTICAL DATA REPORTS - DEC.	100
COST JOURNALS TAPES, SALES	130
COST MILL REPORTS	130

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DESCRIPTION	CATEGORY NUMBER
- C -	
COST OBJECTIVE & PERFORMANCE BOOKLETS - DEC.	130
COST OBJECTIVE & PERFORMANCE BOOKLETS - MO.	130
COST REPORTS - MONTHLY	70
COST REPORTS - MONTHLY	130
COST REPORTS - YEAR-END	130
COURT ORDER J-5 TO DIVEST BOX PLANTS	110
CREDIT ADJUSTMENTS 250S	160
CREDIT APPLICATION	160
CREDIT ASSOCIATION MEETINGS	160
CREDIT CURRENT REPORTS	160
CREDIT FILES (FINANCIAL STATEMENTS D&B,ETC)	160
CREDIT FILES BY CUSTOMER	160
CREDIT INFO. LETTERS - (MISC.) - PAST PAYM'T PERFORMANC	160
CREDIT INFO. LETTERS - BANK, SUPPLIER & REF. LETTERS	160
CREDIT MEMOS - PLANT COPY	130
CREDIT MEMOS - TOLEDO ACCOUNTING COPY	130
CREDIT PAST REPORTS	160
CREDIT PLANT REPORTS - YEAR-END	160
CREDIT PUBLICATIONS	160
CREDIT REFERENCE	160
CREDIT UNION APPLICATION FOR SHARE WITHDRAWALS	140
CREDIT UNION APPLICATION FOR TRUST ACCOUNT	140
CREDIT UNION AUDIT REPORTS - SUPERVISORY COMMITTEE	140

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DESCRIPTION	CATEGORY NUMBER
- C -	
CREDIT UNION AUTHORIZATION FOR APPL. SHARE TO LOANS	140
CREDIT UNION BANK DEPOSIT SLIPS	140
CREDIT UNION BANK RECONCILIATIONS	140
CREDIT UNION BANK STATEMENTS	140
CREDIT UNION BY-LAWS	140
CREDIT UNION CANCELLED CHECKS	140
CREDIT UNION CASH DISBURSED VOUCHERS	140
CREDIT UNION CASH RECEIVED FROM SALE OF BONDS	140
CREDIT UNION CASH RECEIVED VOUCHERS	140
CREDIT UNION CERTIFICATES AUTHORIZING CHANGE FUND	140
CREDIT UNION CERTIFICATION TO ACT AS ISS. AGENT OF US S	140
CREDIT UNION CHARTER	140
CREDIT UNION CHARTERS, AMENDMENTS, OR BY-LAWS	140
CREDIT UNION CHECK BOOK STUBS	140
CREDIT UNION DEDUCTION & FILES	140
CREDIT UNION DEDUCTION REPORTS (OUTPUT)	20
CREDIT UNION DEDUCTION SHEETS (INPUT)	20
CREDIT UNION DELINQUENT LOAN SCHEDULES	140
CREDIT UNION DIVIDEND RECORD	140
CREDIT UNION DOCUMENTS EVIDENCING THE INVEST. OF FUNDS	140
CREDIT UNION EXAMINCATION REPORTS REC'D FROM FCA,FIDC,E	140
CREDIT UNION EXPENSE LEDGER	140
CREDIT UNION FINANCIAL & STATISTICAL REPORT - ANNUAL	140

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DESCRIPTION	CATEGORY NUMBER
- C -	
CREDIT UNION FINANCIAL & STATISTICAL REPORT - MONTHLY	140
CREDIT UNION GENERAL CORRESPONDENCE	140
CREDIT UNION GENERAL LEDGER	140
CREDIT UNION GENERAL LEDGER TRIAL BALANCE	140
CREDIT UNION INDIVIDUAL SHARE & LOAN LEDGER	140
CREDIT UNION INVOICES PAID	140
CREDIT UNION JOINT SHARE ACCOUNT AGREEMENTS	140
CREDIT UNION JOURNAL & CASH RECORDS	140
CREDIT UNION JOURNAL VOUCHERS	140
CREDIT UNION LICENSE TO OPERATE UNDER REGULATION	140
CREDIT UNION LOAN APPLICATIONS	140
CREDIT UNION MINUTES OF MEETINGS - VARIOUS	140
CREDIT UNION PAID BILLS	140
CREDIT UNION PAID NOTES - COPY	140
CREDIT UNION PAYROLL DEDUCTION CARDS	140
CREDIT UNION PAYROLL DEDUCTION LISTS	140
CREDIT UNION PROOF TAPES - INDIVIDUAL SHARE & LOAN LEDG	140
CREDIT UNION RECORDS DESTROYED LISTING	140
CREDIT UNION REPORT	140
CREDIT UNION SIGNATURE CARDS - APPLI. FOR MEMBERSHIP	140
CREDIT UNION SUPERVISORY COMMITTEE RECORD OF ACT VERFI.	140
CREDIT UNION U.S. SAVINGS BONDS RECEIVED RECORDS	140
CROSS CHARGES	130

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DESCRIPTION	CATEGORY NUMBER
- C -	
CROSS INDEX CARDS	170
CROSS INDEX CARDS - PRODUCTS	80
CROSS REFERENCE LISTING	100
CROSS REFERENCE OF CURRENT ITEMS (CARD INDEX FILE)	70
CULLET ORDERS -HISTORICAL RECORD	80
CULLET SLIPS	130
CUSTOMER ACTIVITY FILE	100
CUSTOMER AGREEMENTS	90
CUSTOMER ANALYSIS HISTORY	90
CUSTOMER ART WORK	70
CUSTOMER CARDS -ORIGINAL - ALL WORK PERFORMED FOR CUST.	70
CUSTOMER CHARTS & PRINTS WITH CORRES.	70
CUSTOMER CLAIMS - CLOSED - PLTS	160
CUSTOMER COMPLAINTS	160
CUSTOMER COMPLAINTS -EXCEPT FOR REGULATED ITEMS	100
CUSTOMER CORRUGATED SERVICE LABORATORY TESTING	90
CUSTOMER DATA & INFORMATION	70
CUSTOMER DECENDING ORDER LIST	90
CUSTOMER DRAWING REQUEST REGISTER	70
CUSTOMER ENGINEERING ACCOUNTS	70
CUSTOMER ENGINEERING MACHINE PROJECTS	70
CUSTOMER EQUIPMENT FILE BY CUSTOMER & ITEM	90
CUSTOMER FILES - CLOSED	70

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DESCRIPTION	CATEGORY NUMBER
- C -	
CUSTOMER FILES - DEALING WITH COST (CLOSED)	70
CUSTOMER FILES - PLANT QUALITY AUDIT FILE	100
CUSTOMER INQUIRIES	90
CUSTOMER ITEM TAPE - DEC.(ORIGINALS)	90
CUSTOMER LEDGER CARDS	130
CUSTOMER MASTER LIST - MONTHLY UPDATING	90
CUSTOMER NOTE RECEIVABLE WRITTEN OFF	130
CUSTOMER PACKAGING SERVICE REQUESTS - 1591	70
CUSTOMER PLANT LAYOUT	70
CUSTOMER PRICE QUOTATIONS	90
CUSTOMER PRINTS	70
CUSTOMER PROFIT ANALYSIS	90
CUSTOMER REPORTS - (MAJOR)	90
CUSTOMER REQUEST FOR NEW DESIGN OF CONTAINER	70
CUSTOMER SALES ANALYSIS - ANNUAL REPORTS	90
CUSTOMER SALES ANALYSIS - MONTHLY REPORTS	90
CUSTOMER SERVICE EXPENSE REPORT	90
CUSTOMERS QUOTATIONS - CORRESPONDENCE - GOVERNMENTAL	90
CUSTOMERS QUOTATIONS - CORRESPONDENCE - PRESCRIPTION	90
CUTTING PRODUCTION - MONTHLY	90

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DESCRIPTION	CATEGORY NUMBER
- D -	
DATA MACHINE & EQUIP. - MISC.	70
DEALER BULLETINS - KIMBLE SALES	90
DEATH BENEFITS	20
DEATH RECORDS	40
DECO SECTION IN 1360 STAFF FILE	90
DECORATING ACCOUNTS	90
DECORATING JOB HISTORIES	100
DEDUCTION - OVERPYM'T (CHARGEBACKS)-A/R CENTRALIZED DIV	160
DEDUCTION AUTHORIZATION FORMS	20
DEDUCTION NOT TAKEN REPORT	20
DEEDS	110
DEFALCATION CASES	110
DEFECTIVE CARTON PRODUCTION SCRAPPED	130
DEFERRED CHARGES & SUPPORTING DATA	130
DEFLASHING TOOL DESIGN FILE (PRIOR YEARS)	70
DEFLASHING TOOL FILE PRINTS - CORRES.WITH MOLD NUMBER	70
DELIVERY RECEIPTS	90
DEMURRAGE CONTROL SHEETS	90
DEPARTMENT OF LABOR BUREAU OF STATISTICS	40
DEPARTMENT REFUSAL SLIPS	40
DEPRECIATION WORKSHEETS-ACTUAL-TAX/CORP ACCT'G	10
DEPRECIATION WORKSHEETS-ANNUAL FIXED CHARGE)-CORP ACCT'	10
DESIGN - DRAWINGS (ORIGINALS)	100

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DESCRIPTION	CATEGORY NUMBER
- D -	
DESIGN APPLICATION FILE - DROPPED	110
DESIGN APPLICATION FILE - ISSUED	110
DESIGN COMMENTS	70
DESIGN DEVELOPMENT GLASS & BILLING SURVEY	130
DESIGN PKG. MINUTES (1967 TO PRESENT)	70
DESIGN PROJECT FILE	70
DETAIL DRAWINGS NUMBER & SPEC.	70
DETAILED ASSEMBLY DRAWINGS	70
DEVELOPMENT PROJECTS - OPEN & CLOSED	70
DIE ORDERS	100
DIE TAPES	100
DIE, MOLD & ROLL TEXTURING (SAMPLES)	70
DIRECT CAPITAL CHARGE SHEETS - DIV ACCT'G	10
DISABILITY - PENDING	40
DISABILITY CLAIM - LONG-TERM GROUP INSURANCE	40
DISASTER RECOVERY PLANS	120
DISBURSEMENTS RUNS -WEEKLY	130
DISPOSAL REQUESTS (AE'S) - DIV	10
DISTRIBUTION FOR TRANSPORTATION PAY REFUNDS	130
DIVISIONAL TRUCKING DISTRIBUTION	60
DOCUMENTS LITIGATION DISMISSED WITH PREJUD.	110
DOCUMENTS LITIGATION DISMISSED WITHOUT PREJUD.	110
DOCUMENTS RELATING TO CLAIMS	110

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DESCRIPTION	CATEGORY NUMBER
- D	
DRAFTS PAID	130
DRAWINGS & PARTS LIST FOR BC-1 BLOW MOLDING MACHINE	70
DRAWINGS - #150	70
DRAWINGS ON BUILDINGS SYSTEMS	70
DRAWINGS ON PROPRIETORY EQUIPMENT	70
DRIVERS DAILY LOG BOOK	80
DUN & BRADSTREET REPORTS	160
- E -	
EDUCATION & TRAINING RECORDS	40
EDUCATION ASSISTANCE PLAN	40
EEO CHARGES	40
EEO REPORTS	40
EFFICIENCY REPORTS	100
EIS MASTER CORRECTION	20
EMHART REPORTS	100
EMPLOYEE BENEFIT SYSTEMS	40
EMPLOYEE EARNINGS RECORD-CARDS(THRU 1977)	20
EMPLOYEE EARNINGS RECORD-FICHE(STARTING 1978 MO)	20
EMPLOYEE EARNINGS RECORD-FICHE-MASTER RECORD	20
EMPLOYEE EARNINGS RECORD-FICHE-YEAR-END	20
EMPLOYEE MASTER LIST	20

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DESCRIPTION	CATEGORY NUMBER
- E -	
EMPLOYEE MEDICAL RECORDS	40
EMPLOYEE PROFILE & CAREER DOSSIER	40
EMPLOYMENT AGREEMENTS	40
EMPLOYMENT EXPOSURE RECORDS	50
EMPLOYMENT PROGRESS REPORT (MOST RECENT ONLY)	40
EMPLOYMENT SAVINGS BOND AUTORIZATION CARDS	140
ENGINEERING MATERIAL OUTLINING POLICIES	70
ENGINEERING POLICIES	70
ENGINEERING PROJECT INFO - FILES & REPORTS	70
ENVIRONMENTAL CONTROL - STACK EMMISSIONS	50
EQUAL PAY CORRESPONDENCE	40
EQUIPMENT (SPECIAL) PRINTS	70
EQUIPMENT CONVERSION CORRESPONDENCE	80
EVALUATION - CORP. OFFICERS	40
EVALUATION - JOB GUIDELINES	40
EVALUATION - PLANS - COPIES	40
EXERCISE OF STOCK OPTION & SARS	20
EXISTING MOLD EQUIPMENT - CHANGES	100
EXPANSION FILES - PLANT	70
- F -	
F.B.A. REPORTS	60

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DESCRIPTION	CATEGORY NUMBER
- F -	
F.I.C.A. & FEDERAL INCOME TAX PAYMENT PAPERS	150
F.I.C.A. EXEMPTION -SICK PAY TIME SLIPS - (FORM 2101)	20
F.I.C.A. EXEMPTION RECORD	40
F.I.C.A. QUARTERLY 941 CONT. SHEETS & SUPPORTING PAPERS	20
F.I.C.A. TAXABLE WAGES (FORM 426)	20
FACILITIES STUDIES	70
FACTORY ORDER PRODUCTION COPIES	100
FACTORY ORDERS BY BRANCHES	90
FACTORY ORDERS CHANGES	100
FACTORY ORDERS COMPLETED ORDER FILE	100
FEDERAL SUPPLY SCHEDULE PRICE LIST	90
FIELD MANAGEMENT INFORMATION	90
FILM LIBRARY	70
FINANCIAL INFORMATION - V.SO., S.R.&N - YEAR END	60
FINANCIAL PERFORMANCE CHARTS AND ANALYSIS	60
FINANCIAL REPORTS & STRATEGIC PLANS-AFFILIATE-MO.	60
FINANCIAL STATEMENTS - CORPORATE (ALSO FORMER GRAYBACKS	130
FINANCIAL STATEMENTS - DIVISIONS	130
FINANCIAL STATEMENTS - PLANTS	130
FINANCIAL STATISTIC - PRIMARY AREA MONTHLY (AMR)	60
FINANCIAL STATISTICS	60
FINISH EQUIPMENT INVENT PROJECTS	100
FINISH EQUIPMENT TRACINGS	70

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DESCRIPTION	CATEGORY NUMBER
- F -	
FINISH STANDARDIZATION & FINISH BULLETINS	70
FINISHED GOODS SCRAPPING REQUEST	100
FIXED ASSET PHYSICAL INVENTORY REPORT	10
FIXED ASSET TRANSFERS & RETIREMENTS - DIV ACCT'G	10
FIXED CHARGES	130
FLASH EARNINGS - FPD COMPT. DEPT.	130
FOOD & DRUG ADMINISTRATION CORRESPONDENCE	70
FOOD SERVICE & INFORMATION REPORTS	90
FOOD SERVICE SALES - BY DOZEN (TAPES)	90
FOOD SERVICE SALES - BY PRODUCT -QUARTERLY TAPES	90
FORECASTS - PRICING QUOTES	130
FORECASTS PUBLISHED - LONG	90
FORECASTS PUBLISHED - SHORT	90
FORECASTS WORKPAPERS - PROFIT (MONTHLY)	130
FOREIGN AFFILIATE PLANT/PEOPLE HISTORY	40
FOREIGN CORPORATION - ANNUAL REPORTS	130
FOREIGN OPERATIONS ANALYSIS	60
FOREIGN OPERATIONS WORKSHEET	60
FOREIGN PATENT PROSECUTION FILES	110
FOREIGN TRADEMARK PROSECUTION FILES-IF DROPPED	110
FORESTRY EXPERIMENTAL AREA RECORDS	60
FORM FILES - 308 & SP-10	100
FORMER EMPLOYEES ON RETAINER BASIS REPORTS	40

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DESCRIPTION	CATEGORY NUMBER
- F -	
FORMING CODE BOOKS	100
FORMING CODE TAPES - CLOSURE - MONTHLY	90
FORMING CODE TAPES - CLOSURE - YEARLY RECAPS	90
FORMING DATA TAPES	100
FORMING JOB HISTORIES - ACCOUNTING DEPT. COPY	130
FORMING JOB HISTORIES - ORIGINAL	100
FORMING WORK SCHEDULES - MONTHLY	90
FORMS - FINISHED LAYOUTS	70
FORMS - MODEL ORDER FORMS	70
FORMULATION RECORDS	70
FRANCHISE AGREEMENT - KIMBLE LAB SALES	90
FRANCHISE COMPANY APPROVALS	90
FRANCHISE CUSTOMER DESIGN FILE - INACTIVE	70
FRANCHISE DESIGN - OBSOLETE NATIONAL ACCOUNTS	70
FRANCHISE DESIGN CARD RECORD	70
FRANCHISE SHIPMENT REPORTS	90
FRANCHISE STATE & LOCAL TAXES - WORKPAPERS	150
FREIGHT ACCOUNT - RECONCILIATION & DETAIL	130
FREIGHT BILLS PAID	130
FREIGHT CLAIMS	80
FREIGHT INVENTORY COST RECORDS	130
FREIGHT RATES	80
FREIGHT REGISTERS - PLANT COPY	130

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DESCRIPTION	CATEGORY NUMBER
- F -	
FREIGHT REGISTERS - TOLEDO COPY - A/P DEPT.	130
FREIGHT TARIFFS	80
FREIGHT TRANS PAID FRT. REGISTER - MICRO.COPY	130
FRINGE BENEFIT REPORTS	40
FUEL STATISTICS	70
FUNERAL ABSENCE AUTHORIZATIONS	40
FURNANCE - EXPANSION	80
FURNANCE - REBUILD	80
- G -	
G.P.I REPORT WORKPAPERS	130
G.P.I. LABORATORY INDUSTRY TESTS	100
G.S.A. (BIDS, CONTRACTS, WORKPAPERS)	130
G.S.A. GENERAL SERVICES - ADM.	90
GAIN ON SALES OF TIMBER REPORT - FPD COMPT. DEPT.	130
GARNISHMENTS/COURT ORDERS	20
GAS PROPERTIES - CLARION, FAIRMONT	110
GATE PASSES FOR TRUCKS	80
GENERAL LEDGER - ACCOUNT ANALYSIS	130
GENERAL LEDGER MONTHLY RECONCILIATION OF CASH ACCTS.	130
GENERAL LEDGERS	130
GENERAL LEDGERS SALES SUPPORT - MONTHLY	130

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DESCRIPTION	CATEGORY NUMBER
- G -	
GENERAL OFFICE ACCOUNTS - PRINT-OUT - CHECKS ISSUED	130
GENERAL OFFICE ACCOUNTS - RECONCILIATION & SUPPORT	130
GLASS & QUALITY CERTIFICATE	100
GLASS HOUSE STATISTICS	100
GLASS SHAPES & PART NUMBERS FOR MACHINERY ASSEMBLY	70
GMP INTERNAL AUDIT CORRESPONDENCE	100
GOOD MFG REGULATIONS (29CFR-S211)-DRUG COMPONETS, CLOS.	50
GOVERNMENT & CUSTOMER WITH CORRESPONDENCE REPORTS	90
GOVERNMENT AGENCY REPORTING	120
GOVERNMENT BILLINGS, ORDERS, BIDS, INQUIRIES & CONTRACT	80
GOVERNMENT CONTRACTS	90
GRAPHS & CHARTS	70
GRAYBACKS - (FINANCIAL STATEMENTS - CORPORATE)	130
GRIEVANCE FILES	40
GROUP INS. BOOKLET	40
GROUP INS. CONTROL	40
GROUP INS. COSTS	40
GROUP INS. DESCRIPTION OF POLICY	40
GROUP INS. FEDERAL AND STATE DISCLOSURE	40
GROUP INS. RECORDS CANCELLATION REPORT-RETIREE ONLY	40
GROUP INS. RECORDS CLAIMS (AFTER PAID)	40
GROUP INS. RECORDS EVIDENCE OF INSURABILITY STATEMENT	40
GROUP INS. RECORDS ISSUED REPORT - RETIREE INS. ONLY	40

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DESCRIPTION	CATEGORY NUMBER
- G -	
GROUP INS. REPORT	40
GROUP INS. SENIOR EXECUTIVE	40
GROUP INS. TAPES	40
GROUP INS. UNEXPIRED SCHEDULES	40
GROUP INS. VOLUNTARY ACCIDENT	40
- H -	
HEALTH & WELFARE ACCT. - RECONCILIATION & SUPPORT	130
HEAT TREAT PRODUCTION - DAILY	130
HIRING LOG	40
HISTORICAL FILES - AUDITING	130
HISTORIES OF COMPUTER CENTER - DEPT	120
HISTORY BOOK ON SALES STATISTICS	90
HISTORY CARD - (FROM PEP)	40
HISTORY CARD - ACTIVE, TERMINATED	40
HISTORY CARD - GROUP INSURANCE - ACTIVE	40
HISTORY FOLDERS (SPECIFICATION FILES)	100
HISTORY OF GLASS	90
HISTORY ON PURCHASE FROM OUTSIDE GLASS COMPANIES	80
HISTORY TAPES - CUSTOMER	130
HOLD WASTE TICKET	90
HOLIDAY PAY ELIGIBILITY LIST	20

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DESCRIPTION	CATEGORY NUMBER
- H -	
HOURLY MANHOUR & ACCRUED PAYROLL DATA (FORM 514)	20
HOURLY PAYROLL FUNDING RECORDS	30
HOURLY PAYROLL INS. CLASSIFICATIONS - WORKMANS COMPEN.	20
HOUSEHOLD GOOD SHIPMENT RECORD	80
- I -	
IDEAL AREA ANALYSIS TAPES-GDA	170
INCENTIVE PROGRAM - DATA TAPES	40
INCENTIVE PROGRAM - MGT.PROGRAM	40
INCENTIVE PROGRAM - OFFICERS BONUS PLAN	40
INCENTIVE PROGRAM - SALES	40
INCENTIVE PROGRAM - SALES BY DIVISION	40
INCOME - NET BY SALES DIVISIONS	90
INCOME TAX RETURNS - FEDERAL	150
INCOME TAX RETURNS - LEGAL OFFICIAL COPIES	150
INCOME TAX RETURNS - ONIZED CLUB - PLANTS	150
INCOME TAX RETURNS - SUPPORTING PRINTED SCHED.	150
INCOME TAX RETURNS -WORKPAPERS	150
INDUSTRIAL ENGINEERING MONTHLY REPORT	100
INDUSTRY INFORMATION	90
INDUSTRY POSITION REPORTS	100
INFLATION ACCOUNTING WORKPAPERS - CORP ACCT'G	10

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DESCRIPTION	CATEGORY NUMBER
- I -	
INFORMATION & DATA ON TOOLING	70
INFORMATION FILE - MACHINERY	70
INFORMATION FILE - OUTSIDE VENDORS	80
INFORMATION ON RESEARCH AGENCIES	90
INJECTION MOLD COST REFERENCE	70
INJECTION SYSTEM MACHINES - I.S. MACHINES	100
INSPECTIONS - CRANES, CRANE ROPES, CRANE HOOKS	50
INSPECTIONS - FIRE EXTINGUISHERS	50
INSPECTIONS - MANLIFTS	50
INSPECTIONS - POWER PRESSES	50
INSPECTIONS - RESPIRATORS	50
INSPECTIONS - ROPES USED ON DERRICKS	50
INSPECTIONS - WELDING EQUIPMENT	50
INSTITUTE REPORT	90
INTERNATIONAL AGREEMENTS	130
INTERNATIONAL OPEN & CLOSED PROJECTS	70
INTERNATIONAL UNION DUES REMITTANCE FORMS	20
INTERVIEW EVALUATIONS	40
INVENTION RECORDS	70
INVENTION SUPPLEMENTAL AWARD PLANS	110
INVENTORIES - ANNUAL	130
INVENTORIES - MONTHLY	130
INVENTORIES - YEAR-END LIFO	130

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SECTION B
RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- I -	
INVENTORIES-PROPERTY, PLT & EQUIP.-FISCHE - CORP ACCT'G	10
INVENTORY AGING LIST	130
INVENTORY LISTING - PROPERTY, PLANT & EQUIPMENT - PAPER	10
INVENTORY LISTING, PROPERTY, PLANT & EQUIPMENT - PLT	10
INVENTORY RECORDS OF BLOW MOLD	70
INVENTORY TICKETS	130
INVESTMENT ACCOUNTS - RECONCILIATION & SUPPORT	130
INVESTMENT CREDIT FILES - CORP ACCT'G	10
INVESTMENT SHORT TERM CORRES., NOTIFICATION & SUMMARY	60
INVESTMENT STUDY RETURN	60
INVESTMENT TAX CREDIT FILES - PLT	10
INVOICE PACKET (VOUCHER, INVOICE, P.O., MRR)	130
INVOICES - A PLANT COPY	130
INVOICES - A TOLEDO ACCOUNTING COPY	130
INVOICES - B PLANT COPY-(SALES INVOICES)	130
INVOICES - B TOLEDO ACCOUNTING COPY-(SALES INVOICES)	130
INVOICES - CORRECTIONS	130
INVOICES - EQUIPMENT	130
INVOICES - OUTSIDE VENDOR & INTER-COMPANY (COPIES)	130
INVOICES - PALLET - TOLEDO ACCT'G COPY	130
INVOICES - STORAGE CHARGES - TOLEDO ACCT'G COPY	130
IRS SCHEDULE E	20
ITEL RAIL CONTRACT & AMENDMENTS TO CONTRACTS	80

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DESCRIPTION	CATEGORY NUMBER
- I -	
ITEM MASTER BY PRODUCT LINE - COMPUTER TAPES	90
ITEM PRINT BOOKS	100
ITINERARIES - REGIONAL & AREA	90
- J -	
JOB ANALYSIS REPORTS	100
JOB BID SHEETS	40
JOB HISTORIES - MACHINERY	100
JOB HISTORY & MOLD SUMMARY TAPES	100
JOB HISTORY PRODUCTION BOOKS	100
JOB POSTINGS & AWARD NOTICES	40
JOB SCHEDULE CARDS - COMPLETED	100
JOB SPECIFICATION/JOB DESCRIPTIONS	40
JOB SPECIFICATIONS - DIVISIONAL	40
JOB SPECIFICATIONS - FOREIGN	40
JOB SPECIFICATIONS - HOURLY & SALARY - ALL DIVISIONS	40
JOB TAPE BOOK - CLOSED OUT	100
JOB TRAINING MATERIAL	40
JOURNAL ENTRIES - ORIGINALS	130

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DESCRIPTION	CATEGORY NUMBER
- L -	
LAB FORMS	70
LABOR CONTRACTS	40
LABOR DISTRIBUTION CARDS	100
LABOR DISTRIBUTION RECAPS (FORM CP 5174)	20
LABOR DISTRIBUTION TAPES	100
LABOR DISTRIBUTIONS DETAIL TAPES	20
LABOR DISTRIBUTIONS SUMMARIES - JOURNALS	20
LABOR NEGOTIATIONS - COPIES OF CONTRACTS	40
LABOR NEGOTIATIONS, WAGE CONFERENCE & MEETINGS	40
LABOR REPORT TAPES	20
LABORATORY TEST REPORTS	70
LAYOFF NOTICES	40
LAYOUT SHEET	70
LAYOUT TRACINGS - ORIGINAL	70
LEASE AGREEMENTS -ORIGINALS - CANCELLED	110
LEASE ANALYSIS DATA SHEETS (COPIES)	110
LEASE ANALYSIS DATA SHEETS (ORIGINALS)	110
LEASE SUMMARY FILE	60
LEAVE OF ABSENCE NOTICES	40
LEGAL SUIT SAMPLE OF GLASS CONTAINERS	110
LEGISLATIVE INFORMATION	170
LETTERS OF REFERENCE	40
LEVER BROTHERS - REPORTS & PROJECTS	90

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DESCRIPTION	CATEGORY NUMBER
- L -	
LIABILITIES TO & CLAIMS ON FOREIGNER	60
LIBBEY PUBLICITY	90
LIBBEY SALES TAPES - S-9 - DECEMBER	130
LIBBEY SALES TAPES - S-9 - MONTHLY	130
LICENSES (VENDING & AUTOMOBILE)	110
LISTINGS FOR RUNS (PROGRAMS) - ORIGINAL	120
LITERATURE - COMPETITORS MANUFACTURERS	90
LOAD DIAGRAMS - OBSOLETE	100
LOAD TALLY SHEETS	130
LOAD TICKETS	130
LOAN - EXPORT/IMPORT BANK	130
LOAN REPORTS - EMPLOYEE	130
LOANS & NOTES PAYABLE	130
LOCK BOX CHECKS	30
LOG OF JOB OFFERS REFUSED	40
LOGGING OPERATION REPORT	100
LOGS - ABSTRACTS OF BOATS	80
- M -	
M.T.W EASEMENTS & RIGHT OF WAYS	80
MACHINE & BLOW MOLD REFERENCE FILES	70
MACHINE DESIGN PROPOSALS	70

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DESCRIPTION	CATEGORY NUMBER
- M -	
MACHINE HISTORY FILE	70
MACHINE OPERATION REPORTS - DOWNTIME SHEETS (FORM CP530	100
MACHINE SHOP WORK REQUISITION RECORDS	70
MACHINERY EQUIPMENT & PARTS CATALOG	70
MACHINERY MAINTENANCE COST REPORTS	100
MACHINES & EQUIPMENT - PHOTOS	70
MACHINES & PLANT TECHNICAL DATA	70
MACHINES IN FIELD INFO.	70
MACHINES PART LIST	70
MACHINES PRINTS	70
MACHINES PRINTS - OLD	70
MACHINES REBUILD INFORMATION	70
MAINTENANCE REQUESTS (COPIES)	70
MAJOR TOPIC FILE RELATED TO CORRUGATED QUALITY	100
MANAGEMENT C.R. CONTROL REPORTS	60
MANAGEMENT INCENTIVE PLAN	20
MANAGEMENT MANPOWER FORECASTING PROJECT	40
MANUAL CHECKS - SECOND COPY WITH BACKUP	130
MANUAL CHECKS - THIRD COPY	130
MANUALS	170
MANUFACTURING & ASSOC. COST REPORTS	70
MANUFACTURING CATALOGS	70
MANUFACTURING CONTRACTS	90

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DESCRIPTION	CATEGORY NUMBER
- M -	
MANUFACTURING INSTITUTE INDUSTRY TESTS - TEST BY GCD	100
MANUFACTURING ORDERS	100
MANUFACTURING PERFORMANCE GAIN & LOSS	130
MANUFACTURING PERFORMANCE PLAN REPORTS (DECEMBER)	100
MANUFACTURING PERFORMANCE PLAN REPORTS (MONTHLY)	100
MANUFACTURING VARIANCE ANALYSIS REPORTS	130
MANUFACTURING VARIANCE REPORTS	100
MAP REPORTS	60
MARINE OPERATION - MONTHLY REPORTS ON TUGS & BARGES	80
MARKETING & PLANNING - DIVISION	90
MARKETING - STRATEGIC PLANS	90
MARKETING PLANNING BOOKS	90
MARKETING RESEARCH PROJECTS - FISCHE	90
MARKETING RESEARCH STUDIES	90
MARKETING TAB TAPES	90
MASTER DRAWINGS	70
MASTER TAG CONTROL SHEETS - PLT	10
MATERIAL DEVELOPMENT PROCEDURE TESTS	100
MATERIAL RECLAIMED REPORT	80
MATERIAL SUPPLIERS FILE	100
MATERIALS IN TRANSIT - YEAR-END	130
MEDICAL FOLDER - RETIREES	40
MEDICAL HISTORIES - ACTIVE EMPLOYEES	40

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DESCRIPTION	CATEGORY NUMBER
- M -	
MEETING & FOOD SERVICE FORMS	120
MEETING - MINUTES, SCHEDULES, AGENDAS	170
MEETING NOTES - ENGINEERING MANUFACTURING - MONTHLY	70
MEETINGS - PRESENTATIONS, SPEECHES, CHARTS & SLIDES	170
MEMO BILLINGS	130
MERCHANDISE AWARDS	20
MICROFILM LOGS	170
MILL ANALYSIS	90
MILLS CONTRACTS	90
MILLS RECORDS	90
MILLS SAMPLES	90
MISCELLANEOUS CHECKS AND REMITTANCES	30
MISCELLANEOUS DOCUMENTS REQUIRED BY IRS	170
MISCELLANEOUS FILES, STUDIES, PROJECTS, REPORTS, ETC.	170
MISCELLANEOUS SALES & RETURN ORDERS (MSRO) COPIES	80
MISCELLANEOUS SALES & RETURN ORDERS (MSRO) ORIGINALS	80
MOLD - CUSTOMER MOLD DEVELOPMENT (DUPLICATE)	90
MOLD - EQUIPMENT	90
MOLD - EXISTING ITEMS WITH CORRESPONDENCE (DUP.)	90
MOLD AMORTIZATION FILE	90
MOLD BILLINGS	130
MOLD BLOW MOLD & MATERIAL SUPPLIES CORR.	70
MOLD BOOKS TOP 500	100

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DESCRIPTION	CATEGORY NUMBER
- M -	
MOLD CARDS ACTIVE & SCRAPPED	70
MOLD CHARTS, PRINTS WITH CORRES.	70
MOLD CORR., PROJECTS, BUDGETS, MACHINERY	70
MOLD COST MEMOS	130
MOLD DEPOSIT FILE	100
MOLD EQUIPMENT DRAWINGS FILES	70
MOLD EQUIPMENT REPORT - RECAP SALES ORDERS	90
MOLD FILES	100
MOLD FORECASTS	100
MOLD ITEM LISTINGS	100
MOLD JOB HISTORY FILED NUMERICALLY *LEGAL REQUIREMENTS	100
MOLD NUMBERING BOOK	70
MOLD PRODUCT INQUIRIES (MPI)	70
MOLD PRODUCT INQUIRIES PRINTS	70
MOLD RECORDS BY SALE LINE & NUMBER	100
MOLD SCHEDULES	100
MOLD SHIPMENT TAPES - DEC. (COPIES)	130
MOLD SHIPMENT TAPES - DEC. (ORIGINALS)	130
MOLD SHIPMENT TAPES - DEC. Y.T.D.	90
MOLD USAGE PROJECT REPORTS	100
MOLDING COMPOUND REPORTS (FORM CP-5178)	100
MOLDS - CLOSED	70
MOVE ORDER - EQUIPMENT (COPIES)	70

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DESCRIPTION	CATEGORY NUMBER
- M -	
MOVING EXPENSE - QUARTERLY AUDIT TAPES	20
MOVING EXPENSE - YEAR-END MAKEWELL TAPE	20
MOVING EXPENSES	130
MRR'S - OPEN - ACCOUNTS PAYABLE (YEAR-END)	130
- N -	
NATIONAL ACCOUNTS REPORTS, STUDIES, STATISTICS	90
NATIONAL AGREEMENTS BY PURCHASING (COPIES)	80
NATIONAL ALLIANCE OF BUSINESS (NAB)	40
NATIONAL PETRO - CHEMICAL CO.- SUBJECT FILES	170
NATIONAL PETRO FILES	60
NEAR SYSTEM SOURCE DOCUMENTS - DIV ACCT'G	10
NEGOTIATION FILES	40
NEW ITEM DEVELOPMENT RECORDS	70
NEW YORK STOCK EXCHANGE REPORTS	60
NEWSPAPER CLIPPINGS - ADS OF LIBBEY & COMPETITORS	90
NINE-O-ONE (901) & APPROPRIATION - DOMESTIC - DIV	10
NINE-O-ONE (901) & APPROPRIATION - FOREIGN - DIV	10
NINE-O-ONE (901) & APPROPRIATION - PLT	10
NINE-O-ONE (901) EXPENDITURE APPROVALS	10
NINE-O-ONE (901) FILES - SUPPORTING PAPERS (CLOSED)	10
NINE-O-ONE (901) PURCHASE ORDERS (PLANT)	10

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DESCRIPTION	CATEGORY NUMBER
- N -	
NINE-O-ONE (901) STATUS REPORT - MONTHLY - PLT	10
NINE-O-ONE (901-E) STATUS REPORT - COMPLETED - DIV	10
NINE-O-ONE (901-E) STATUS REPORT - COMPLETED - PLT	10
NOISE ABATEMENT (PLANT)	50
NORMAL & ESTIMATING 1650 FORMS	130
NOTES - ACCOUNT	60
NOTES - ACTIVITY	60
NOTES - CONTROL & REPORTS	60
NOTES - PAYABLE - AFTER PAYMENT	60
NOTES - RECEIVABLE - AFTER PAYMENT	60
NPDES - INSTRUMENTATION & MAINTENANCE RECORDS	50
NPDES - ORIGINAL PERMIT APPLICATION	50
NPDES - ORIGINAL RECORDINGS FOR ANY CONT. MONITORING	50
NPDES - SAMPLING & ANALYTICAL RECORDS	50
NSDA CONVENTION BOTTLE DESIGN (ORIGINALS)	70
- O -	
O.I.D.C. FILES - HIGH VALUE LANDS - ALL AREA	170
OBJECTIVES & PLANS - STATEMENTS	90
OFCCP - DESK AUDIT DATA	40
OFCCP - LETTER INDICATING "IN COMPLIANCE"	40
OFCCP - ON-SITE COMPLIANCE REVIEW DATA	40

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DESCRIPTION	CATEGORY NUMBER
- O -	
OFFICIAL DOCUMENTS EVIDENCING BUSINESS TRANSACTIONS	110
OFFICIAL WEEKLY SCHEDULE	100
OPERATING DATA SHEETS	70
OPERATING EXPENSE BUDGET STATEMENTS	130
OPERATING ON EXTRUDER POLYETHELENE FILES	70
OPERATING STATISTICS (MILL)	100
OPERATING STATISTICS CORRUGATED CORRESPONDENCE	100
OPERATION OF DATA CENTER PROGRAM	120
ORANGE MILL HISTORICAL FILES	170
ORDER ANALYSIS TAPES	100
ORDER REPORTS - OPEN	70
ORDERS RECEIVED - COPIES (TAPES) - MONTHLY REPORT	90
ORDERS RECEIVED - COPIES (TAPES) - QUARTERLY REPORT	90
ORDERS RECEIVED - COPIES (TAPES)- YEAR-END REPORT	90
OSHA (FORM 101) SUPPLEMENTARY REC. OF OCCUP. INJ. & ILL	50
OSHA (FORM 200) LOG & SUMM. OF OCCUP. INJ. & ILL.	50
OUTPLACEMENT FILE	40
OUTSIDE CONTACTS & INTER'L CORRES. & PRICE QUOTES	100
OUTSIDE PURCHASE WITH COPY OF INVOICE & CORRES.	80
OUTSIDE SUBMISSION INVENTIONS	70
OUTSIDE WAREHOUSE EXPENSE REPORTS	130
OUTSIDE WAREHOUSE INVENTORY REPORTS	130
OVER-SHORTS & CULLETS	130

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DESCRIPTION	CATEGORY NUMBER
- O -	
OVERAGE & PALLET TAPE REPORTS	90
OVERSEAS AFFILIATE REPORT - GENERAL MGR.	60
OVERSEAS AFFILIATES DATA	60
OVERSEAS COMPENSATION REPORT - MONTHLY	20
OVERSEAS TRANSFER POLICIES	40
OVERTIME PAY PERIOD PAYMENT REPORT	20
OVERTIME PAYMENT PERMITS	20
OVERTIME PAYMENT REPORTS - EXEMPT & NON-EXEMPT - SALARY	20
OVERTIME PRODUCTION SCHEDULE PREMIUM	20
OVERTIME SHIFT DIFFERENTIAL	20
- P -	
P & DR DEVELOPMENT REVIEW SUPERVISORS SUMMARY	40
P & DR DEVELOPMENT REVIEW WORKSHEETS	40
P & DR PERFORMANCE/IMPROVEMENT PLAN	40
P.E.P. (PERSONNEL EMPLOYEE PROFILE) CORRES. & REPORTS	40
P.E.P. FORM (EXCEPT HISTORY CARD)	40
P.I. PROJECTS ON SPECIFICATIONS FOR PRICING	70
P.V.C. CORRES.	70
PACK-TO-MELT REPORTS	100
PACKAGE PERFORMANCE & CHARACTERICTICS	100
PACKAGING SPECIFICATION	90

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DESCRIPTION	CATEGORY NUMBER
- P -	
PALLET ACCOUNTING SYSTEM	90
PALLET TAPES & M.R.R. - PLANTS	130
PAMPHLETS - GROUP INSURANCE	40
PANTOGRAPH DRAWINGS & FILM	70
PAPER TESTING LAB - MAJOR PROJ.-COPIES OF FINAL REPORT	100
PART LIST & ASSEMBLY DRAWING OF BC-3 STANDARDIZATION	70
PART LIST & ASSEMBLY OF BC-3 MACHINE (ORIGINALS)	70
PASSPORT MASTERS	130
PAST PROGRESS REPORTS	70
PASTE-UP MASTERS	70
PATENT & CONFIDENTIAL AGREEMENT	110
PATENT ACCUMULATED INFORMATION	110
PATENT AWARDS	20
PATENT FILES - COPIES	110
PATENT FILES RELATING TO PROCESSING OF PLASTICS	110
PATENT INFORMATION	110
PATENTS & DRAWINGS (COPIES)	110
PAY TAPES - MASTER REPORT	20
PAYMENT VOUCHERS & INVOICES - (HARD COPY)	130
PAYMENT VOUCHERS & INVOICES - (MICROFILM)	130
PAYROLL & PROCESS CONTROL	20
PAYROLL DEDUCTION CARDS	20
PAYROLL DEDUCTION REGISTER LISTING (DOE REPORTS)	20

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DESCRIPTION	CATEGORY NUMBER
- P -	
PAYROLL DISTRIBUTION CHARGES WORKSHEETS	20
PAYROLL HOURLY RECONCILIATION (FORM 136) - PLANT	20
PAYROLL HOURLY RECONCILIATION (FORM 136) - TOLEDO	20
PAYROLL RECEIPTS	20
PAYROLL REGISTER - COMPLETE YEAR	20
PAYROLL REGISTER - LAST PAY PERIOD FOR EACH YEAR	20
PAYROLL REIMBURSEMENT REQUESTS (FORM 799)	20
PAYROLL REPORTS - UNMATCHED	20
PAYROLL SUMMARY - ANNUAL	20
PAYROLL SUMMARY - TAPES	20
PAYROLL TAX ACCRUAL	20
PAYROLL TIME CARDS	20
PCB - INVENTORY	50
PCB - QUARTERLY EQUIPMENT INSPECTION (TRANSFORMERS)	50
PCB - RECORDS OF ANY & ALL EQUIPMENT LEAKS	50
PENSION REFORM LAW (ERISA)	40
PENSION TRUST FUND	60
PERFORMANCE AWARD PLAN (PAP)	20
PERFORMANCE COMMENTS - EXPECTED	70
PERFORMANCE FILES - PLANT	100
PERFORMANCE SHEETS - DAILY OPERATION	100
PERSONAL GUARANTEES - ORIGINAL COPIES	160
PERSONEL, SALARY STRUCTURE, SPCR, EMPLOYEE FILE	40

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DESCRIPTION	CATEGORY NUMBER
- P -	
PERSONNEL - EMPLOYEE FILES BY BRANCH OFFICES	40
PERSONNEL - INFORMATION	40
PERSONNEL CORRES. FILES - OVERSEAS PERSONNEL	40
PERSONNEL CREDIT DEPT.	40
PERSONNEL EMPLOYEE PROFILE (PEP)	40
PERSONNEL HISTORY FILE - CURRENT-MALE&FEMALE	40
PERSONNEL HISTORY FILE - MED. HIST. TERM.	40
PERSONNEL HISTORY FILE - SUBJECT	40
PERSONNEL HISTORY FILE - TERM.-MALE &FEMALE	40
PERSONNEL INVENTORY	40
PERSONNEL INVENTORY APPRAISAL PLANT & TOLEDO	40
PERSONNEL POLICY - GENERAL MANAGERS	40
PERSONNEL RECORDS - ACTIVE & INACTIVE	40
PETTY CASH REPORTS - A/P DEPT. COPY	130
PETTY CASH REPORTS - LOCATION COPIES	130
PHOSPHATE FILES	100
PHOTOGRAPHS BLACK & WHITE GLOSSY	90
PHOTOGRAPHS OF FOOD SERVICE ITEMS	90
PLACARD REGISTERS	100
PLANS - ANNUAL BUSINESS & SUPPORT	130
PLANS - BRANCH OPERATING	90
PLANS - STRATEGIC & SUPPORT	130
PLANT CORRUGATED & SHEET INFORMATION	100

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DESCRIPTION	CATEGORY NUMBER
- P -	
PLANT FORMING CODE & PRODUCT NO. SEQUENCE TAPES	100
PLANT LAYOUTS	70
PLANT MANAGER SITUATION REPORT	40
PLANT OPERATION FILES	70
PLANT RATE TAPES - PRODUCTS & INPUT FILES	130
PLANT SAFETY FILES	50
PLANT STATISTIC PRODUCTION REPORT	100
PLANT SYSTEMS ON FLAME TREATING	70
PLANTS - CLOSED	40
PLANTS - PRINTS OF PLANT SYSTEM	70
PLANTS - PROJECT FILES & MATERIALS	70
PLANTS - SET-UP	70
PLASTIC MACHINES-BROCHURES & TECHNICAL DATA	70
PLASTIC MATERIAL EVALUATION REPORTS (1ST RUN)	100
PLASTIC PALLETS & SPIN OPAL WARE EVALUATION	70
PLASTIC WASTE MANAGEMENT (ANTI-POLLUTION)	50
PLASTICIZED MATERIAL	70
PLOT PLANS	170
POLICIES - LEGAL MATTERS & PRODUCT LIABILITY	110
POLY VINYAL CHLORIDE (P.V.C.) MACHINE - PLANT	70
POLY VINYAL CHLORIDE (P.V.C.) MACHINE OPERATING	70
POOL MANIFESTS - CARS & TRUCKS BY DESTINATION	80
POST AUDIT FILE AND WORKPAPERS - PLT	10

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DESCRIPTION	CATEGORY NUMBER
- P -	
POSTAGE METER READINGS	120
POSTAL INFORMATION	120
PRE-EMPLOYMENT PHYSICAL EXAM	40
PRETREATMENT REQUIREMENTS - RECORDS OF MONITORING DATA	50
PREVENTATIVE MAINTENANCE BLDG. SYSTEMS FILES	170
PRICE CHANGES	90
PRICE ERRORS	90
PRICE INQUIRIES FILES	90
PRICE INQUIRY FORMS 704	90
PRICE LISTS AND DEVELOPMENT PAPERS	90
PRICING INDEX	90
PRINTING & ENGINEERING MONTHLY REPORT	100
PRINTING CARDS	90
PRINTING DIE FILES	70
PRINTS & CERTIFIED PRINTS	70
PRINTS & PARTS LISTS	70
PRINTS - CURRENT CUSTOMERS	90
PRINTS - GERMAN CONFIDENTIAL	70
PRINTS - SKETCHES	70
PRINTS CHANGE NOTICES	70
PROCESS CONTROL CHARTS	100
PROCESS MACHINE OPERATING REPORTS	100
PRODUCT DEVELOPMENT PROJECT FILES	90

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DESCRIPTION	CATEGORY NUMBER
- P -	
PRODUCT LINES - COST & PRICE - HISTORY - ACTIVITY	100
PRODUCT PHOTOS	90
PRODUCT RECOMMENDATIONS	90
PRODUCT SALES - PRODUCTION & INVENTORY DATA - LIBBEY	100
PRODUCTION & DOWNTIME REPORTS-DAILY	100
PRODUCTION ARTICLE PRINTS	70
PRODUCTION AUTHORIZATION	100
PRODUCTION EFFICIENCY REPORTS	100
PRODUCTION EVALUATION	100
PRODUCTION INCENTIVE PLAN	20
PRODUCTION MANAGER SITUATION REPORT - WEEKLY	100
PRODUCTION OF ITEMS - STOCK & PRINT	100
PRODUCTION ORDERS	100
PRODUCTION SCHEDULES & REPORTS (DAILY)	100
PRODUCTION STATISTICS -MOLD SHOP	100
PRODUCTION TAPES - MONTHLY	100
PROFILES BY BRANCH - DEALERS	90
PROFIT - UNREALIZED	130
PROFIT EVALUATION PROGRAM (PEP TAPES)	100
PROGRAM GUIDELINES POLICIES & PROCEDURES	60
PROGRAM LISTINGS	120
PROGRAM SOURCE DECK FOR ORDER ENTRY	60
PROGRAM TRAINING ON VARIOUS MACHINES	120

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DESCRIPTION	CATEGORY NUMBER
- P -	
PROGRAMMING SERVICE REQUESTS	120
PROGRAMS - MERCHANDISING	90
PROGRESS RECORD INDIVIDUAL	40
PROGRESS REPORTS - MONTHLY	70
PROJECT & TECHNICAL INFO.	70
PROJECT AUTHORIZATIONS	70
PROJECT CODE BOOK	70
PROJECT COST REPORT (TAPES)	70
PROJECT COST REPORT YEAR-END	70
PROJECT DATA & INFORMATION	70
PROJECT EXPERIMENTAL NOTEBOOKS	70
PROJECT FILES COMPLETED - PUBLIC AFFAIRS	170
PROJECT FINAL REPORTS - MOLD PREFIX	70
PROJECT LABOR CARDS (COPIES)	70
PROJECT LABOR SHEETS - MONTHLY REPORT	70
PROJECTS - DEVELOPMENT	100
PROJECTS - 901 EXPENDITURES & COMMITTMENT REPORT	130
PROJECTS LIBBEY ENGINEERING REPORTS	70
PROJECTS MISCELLANEOUS ASSISTANCE	70
PROJECTS PATENTABLE DATA - IF NOT PATENTED	70
PROJECTS PATENTABLE DATA - IF PATENTED	70
PROJECTS SELECTED REPORTS - TESTS	70
PROMOTION LOG	40

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DESCRIPTION	CATEGORY NUMBER
- P -	
PROPERTY CARDS - RETIRED ASSETS - PLT	10
PROPERTY INSURANCE	60
PROPERTY LEDGERS - FINAL YEAR-END (MICROFICHE) - CORP	10
PROPERTY LEDGERS - HARD COPY	10
PROPERTY OWNED - O-I ACTIVE	110
PROPERTY OWNED - O-I INACTIVE	110
PROPERTY RECORD - EQUIPMENT TRANSFER IN & OUT	10
PROPERTY SCHEDULES TAA CO. FORM (MICROFILM) - CORP	10
PROSPECTUSES - BOOKLETS	60
PROXY CARDS - ISSUE	60
PROXY CARDS - NO ISSUE	60
PROXY REPORT	20
PROXY STATEMENTS	60
PULPWOOD - DAY BOOK	100
PULPWOOD - SCALE TICKETS	100
PULPWOOD SUMMARIES	100
PURCHASE ORDERS - ACCTS. PAYABLE COPY	80
PURCHASE ORDERS - PURCHASING COPY	80
PURCHASE ORDERS ORDER CORRECTIONS (FORM 147)	90
PURCHASE PAYMENT SYSTEM CHECKS, VOUCHER COPY	130
PURCHASE PAYMENT VOUCHER REPORT - TRANSMITTAL	130
PURCHASING CONTRACTS	80

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DESCRIPTION	CATEGORY NUMBER
- Q -	
QUALITY & SPECIFICATION REPORT	100
QUALITY ASSURANCE GROUP CORRESPONDENCE	100
QUALITY COMPLAINTS BY CUSTOMER A-Z - 3548S	100
QUALITY CONTROL - PRODUCT STANDARDS	100
QUALITY CONTROL CHARTS	100
QUALITY CONTROL INSPECT RECORDS	100
QUALITY CONTROL INSPECT RECORDS RELATING TO LITIGATION	100
QUALITY CONTROL REPORT - EXCEPT THOSE REQUIRED BY FDA	100
QUIK CAP PRODUCT FILE	100
QUOTA BONUS	20
QUOTA REVISIONS	60
QUOTATIONS	80
- R -	
R & D MEETINGS	70
R & D PROJECTS	70
R BILLS	130
RAPS CONTROL TAPES	20
RAPS HISTORY FILES	20
RATE FILE - MASTER	20
RATES ANALYSIS	130
RAW MATERIAL COMPARISON	130

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- R -	
RAW MATERIAL STOCK LEDGER	130
RCRA-ANNUAL REPORTS	50
RCRA-EXCEPTION REPORTS	50
RCRA-HAZARDOUS WASTE ANALYSES	50
RCRA-INSPECTION RECORDS	50
RCRA-MANIFEST - COPY SIGNED BY FACILITY REC'G THE WASTE	50
RCRA-MANIFEST - COPY THAT GENERATOR SIGNS	50
RCRA-TRAINING & EDUCATION	50
RCRA-TSDF-CLOSURE COST	50
RCRA-TSDF-GENERATOR RECORDS	50
RCRA-TSDF-MONITORING & TESTING DATA	50
RCRA-TSDF-OPERATING RECORDS	50
REAL ESTATE & PERSONAL PROPERTY - PAYMENTS	150
REAL ESTATE & PERSONAL PROPERTY-HISTORY,STATISTICS,ETC.	150
REAL ESTATE ACCOUNTS - RECONCILIATION & SUPPORT	130
REAL ESTATE CORRES. CO. - OWNED - ACTIVE	110
REAL ESTATE INDEX BOOKS ON LEASE AGREEMENTS	110
REAL ESTATE LEASES & CORRES. - MISC. ACTIVE	110
REAL ESTATE LEASES & CORRES. - MISC. TERMINATED	110
REAL ESTATE OWNED - CLOSED & TRANSFER FILE CORRES.	110
RECLAMATION	90
RECOMMENDATION OR REQUEST TO INDUSTRIAL ENGIN. FORM 169	70
RECORD (LOG) OF THE USE OF SEASON TICKETS	130

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- R -	
RECORD CARDS - GROUP INSURANCE - ACTIVE	40
RECORD CARDS - GROUP INSURANCE - RETIREES	40
RECORD OF SUBSCRIPTION TO NEW ISSUE OF STOCK	60
RECORDS OF DISCIPLINARY ACTION	40
RECRUITING - ADVERTISING INFORMATION	40
RECRUITING - CLUSTER SCHOOLS	40
RECRUITING - COLLEGE VISITS	40
RECRUITING - PROGRAMS	40
RECRUITING - SCHOLARSHIP FINANCIAL AID	40
RECRUITING - SURVEYS	40
REFERENCE & DATA MATERIAL PERTAINING TO PURCHASES	80
REFERENCE CHECKS	40
REFERENCE MATERIAL - HISTORICAL	90
REFERENCE MATERIAL - PREMIUM SALES	90
RELIFING LISTS - PLANTS	10
RELOCATION EXPENSE FILES	20
RELOCATION REAL ESTATE FILES	20
RELOCATION VAN FILES	20
REPORTS (SPECIAL) TO VARIOUS NOTEHOLDERS	60
REPORTS - DEMURRAGE & BILLS	80
REPORTS - INBOUND CAR & TRUCK LOADS MONTHLY	80
REPORTS - OUTBOUND CAR & TRUCK SHIPPING	80
REPORTS - QUARTERLY LUBRICANTS, OIL & GASOLINE	130

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DESCRIPTION	CATEGORY NUMBER
- R -	
REPORTS - SITUATION (EMPLOYEE HEADCOUNT FOREIGN)	40
REPRODUCTION REQUESTS	90
REQUESTS - INDUSTRIAL ENGINEERING 1699S	70
REQUISITIONS & SAMPLE ORDERS	90
REQUISITIONS - STORES	80
RESEARCH (O-I HISTORY)	170
RESIDENT OFFICE CUSTOMER MOLD REPORTS	100
RESUME - ACTIVE	40
RESUME - INACTIVE	40
RETAIL PREMIUM & PRICE BULLETINS	90
RETAILER OCCUPATIONAL USE TAX FORMS	130
RETIREE DECEASED, CLAIM & DEATH BENEFIT	40
RETIREE INSURANCE - INFORCE TAPES	40
RETIREE INSURANCE TABULATIONS - CANCELLED	40
RETIREE INSURANCE TABULATIONS - CLAIM PAYMENT	40
RETIREE INSURANCE TABULATIONS - ISSUED	40
RETIREMENT ACCOUNT - WACHOVIA - RECON. & SUPPORT	130
RETIREMENT INSURANCE & WORKPAPER REPORTS	130
RETIREMENT PLAN MERGERS	40
RETIREMENT SALARIED EMPLOYEE BENEFITS	40
RETIREMENT STATE & FEDERAL DISCLOSURE REPORTS	40
RETURNED GOODS REPORT	90
REWORK ORDERS	100

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- R -	
ROYALTY REPORT - ANNUAL	130
ROYALTY REPORT - MONTHLY	130
ROYALTY REPORT - QUARTERLY	130
RUBBER PLATE MOLDED COSTS	130
RUNNING FILE ROLL STOCK	100
- S -	
S.R.&N REPORTS	80
S.R.&N RIGHT OF WAY AGREEMENTS	80
SAFETY CLOSURES POISON PREVENTION PACKAGING ACCOUNT	50
SALARIED PERSONNEL REQUISITIONS	40
SALARIES & WAGE EARNED REPORTS	130
SALARY DISTRIBUTION TAPES	130
SALARY HISTORY SHEETS - INDIVIDUAL	20
SALARY POLICIES - STANDARD (HISTORICAL)	40
SALARY POPULATION REPORT	20
SALARY RANGE SCHEDULES (HISTORICAL)	40
SALES & PROFIT CONTEST WITH LITERATURE	90
SALES & PURCHASES OF REAL PROP.-MAJOR TRANS. - CORP	10
SALES & USE TAX ACCRUAL REPORTS - COPIES	130
SALES BONUS	20
SALES BUILDER	90

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DESCRIPTION	CATEGORY NUMBER
- S -	
SALES BULLETINS & PUBLICATIONS - ISSUER - TOLEDO	90
SALES BULLETINS & PUBLICATIONS - LOCATION COPIES	90
SALES BY MONTH - COMPARISON	90
SALES CONTRACTS - EXCHANGE	90
SALES CONTRACTS - EXPIRED	90
SALES CONTRACTS - INVOICES	90
SALES CONTRACTS - PRICING OR BID PROPOSALS	90
SALES CONTRACTS, BASIC, SALES REP., DISTRIBUTORS	90
SALES CONTROL REPORTS	90
SALES DIRECTORY - SALESMEN & TERRITORY	90
SALES FILES - RENEGOTIABLE	90
SALES FORECASTING SYSTEM DOCUMENTATION	120
SALES MEETING REPORTS	90
SALES ORDERS - CLOSED	90
SALES ORDERS - OPEN	90
SALES PRODUCTION & INVENTORY REPORTS (MONTHLY)	90
SALES PRODUCTION & INVENTORY REPORTS (YEAR-END)	90
SALES QUOTATIONS	90
SALES REPORTS AND SUMMARIES - MONTHLY	90
SALES REPORTS AND SUMMARIES - YEAR-END	90
SALES REQUIREMENTS	90
SALES STATE & CITY BOOKS	90
SALES TAX EXEMPTION CERTIFICATE PPD BLANKET TYPE	90

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DESCRIPTION	CATEGORY NUMBER
- S -	
SALES TAX INFORMATION	130
SALESMEN OLD PERFORMANCE RECORDS	90
SALESMEN REPORTS	90
SAMPLE CARTONS - CUSTOMER	70
SAMPLE LABELS & ADVERTISEMENTS	70
SAMPLE REPORTS	70
SAMPLES - DECORATED	70
SAVINGS BONDS - EMPLOYEE - CONTROL FORMS	60
SAVINGS BONDS - EMPLOYEE - DEPOSIT SLIPS	60
SAVINGS BONDS - EMPLOYEE - INSURANCE - LETTERS WITH BON	60
SAVINGS BONDS - EMPLOYEE - RECONCILIATIONS	60
SCHEDULE - SAMPLE REQUEST	70
SCHEDULES - REPACKED BY DEPARTMENT	100
SCRAP AUTHORIZATION FORMS (FORM 277)	90
SECURITY EXCHANGE COMMISSION REPORT	60
SECURITY TRANSACTIONS	150
SELF REIMBURSEMENT REQ.(PC, PR, FRT - MELLON CHECKS)	30
SERVICE - AWARD - JEWELRY	40
SERVICE DATE AFFIDAVITS & ADJUSTMENTS	40
SERVICE ENGINEER REPORTS - 250 S	90
SERVICE RECORD	40
SETTLEMENT DOCUMENTS IN CASES DISMISSED WITH PRED.	110
SHIPPING INSTRUCTIONS - DAILY	80

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DESCRIPTION	CATEGORY NUMBER
- S -	
SHIPPING LOG - DAILY	130
SHIPPING REPORT - WEEKLY	90
SHIPPING SHEET COPIES	90
SHOP ORDER FILES - COMPLETED & SUPPORTING PAPERS-PLT	10
SHOP ORDER REPORTS	130
SIGHT DRAFTS	80
SIGN-IN SHEETS - DAILY	90
SIPS - STORES INVENTORY/PURCHASING SYSTEM - MONTHLY	80
SIPS - STORES INVENTORY/PURCHASING SYSTEM - YEAR-END	80
SITES PENDING - ACTIVE	110
SITUATION & HEADCOUNT REPORTS - PLANT	40
SITUATION REPORTS	100
SOCIETY OF PLASTICS INDUSTRY - CORRES.	70
SOCIETY OF PLASTICS INDUSTRY - FINISHED WORK	70
SOFTWARE - PROGRAMS FOR COMPUTERS ON VARIOUS MACHINES	120
SPACE AVAILABLE - OFFICE, PLANT, WHSE. - ACTIVE	110
SPCC - INSPECTION RECORDS	50
SPCC - TANK INTREGRITY TEST RESULTS	50
SPECIAL PAYROLL PAYMENTS AUTHORITY (FORM 201)	20
SPECIAL PRICES & FREIGHT ALLOWANCE	90
SPECIFICATION MASTER CUSTOMER	70
SPECIFICATION NUMBER ASSIGNMENT CARDS- OBSOLETE	70
SPECIFICATIONS - CANCELLED	90

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- S -	
SPECIFICATIONS - CARDS INACTIVE	90
SPECIFICATIONS FILE-MASTER-STANDARD SPECIFICATION WASTE	70
SPIN TOP PRODUCT FILE & MISCELLANEOUS CORRESPONENCE	100
SPRAY APPLIED COLOR - COST ESTIMATES & CORRESPONENCE	90
STAMP COMPANY LISTINGS	90
STANDARD COST REPORTS	130
STANDARD COST REVISIONS (DETAIL) ANNUAL & INTERIM	130
STANDARD COST SHEETS	130
STANDARD COST TAPES - REPORTS 1, 3 - DEC. & JAN.	130
STANDARD COST TAPES - REPORTS 1, 3 - MO. FEB. - NOV.	130
STANDARD RESEARCH INSTITUTE REPORTS	170
STANDING ORDERS - OPEN PURCHASE REQUISITIONS COMPLETED	80
STATE UCI REPORTS	20
STATE UNEMPLOYMENT TAX	20
STATEMENTS ON MICROFILM - CUSTOMER	130
STATISTICAL & PRODUCTION REPORTS - MONTH-END	100
STATISTICAL REPORTS - MONTHLY	60
STATISTICAL REPORTS - YEARLY	60
STATISTICAL, PROD. & INVENTORY CONTROL REPORT - MO.	100
STATISTICAL, PROD. & INVENTORY CONTROL REPORT-YEAR-END	100
STATISTICS TAPES - FORMING	100
STATUS OF APPROPRIATIONS, 901'S, AND CIP (FPD)	10
STEWARDSHIP REPORTS	130

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- S -	
STOCK & MOLD REQUESTS - STOCK ITEMS	90
STOCK & PRINT REPORTS	100
STOCK BLANKS - OWENS-ILLINOIS	70
STOCK CERTIFICATES - CANCELLED	60
STOCK GOVERNMENT K/D CARTONS	70
STOCK LEDGERS	60
STOCK PURCHASE ACCOUNT - RECON. & SUPPORT	130
STOCK PURCHASE PLAN - ACCT. REGISTER	40
STOCK PURCHASE PLAN - APPLICATION	40
STOCK TRANSACTION	60
STOCK TRANSFERS DAILY	90
STOCKHOLDER LISTS	60
STOP PAYMENT ORDERS	30
STORAGE CHARGES REPORTS	90
STORES STOCK RECORD CARDS	80
STUMPAGE RECORDS	100
SUBMISSIONS - OUTSIDE (AFTER DROPPING)	110
SUGGESTION AWARDS	20
SUGGESTION SYSTEM FILE - ADOPTED	40
SUGGESTION SYSTEM FILE - REJECTED	40
SUPERFUND - HAZARDOUS WASTE SITE NOTICICATION	50
SUPERVISOR 20-DAY PROGRAM REPORTS - FORM 1770	40
SUPPLEMENTAL PAY	20

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DESCRIPTION	CATEGORY NUMBER
- S -	
SURETY BONDS	40
SURFACE TREATMENT PROBLEMS	100
SURVEY OF INDUSTRY - RESEARCH & DEVELOPMENT	70
SURVEYS - COMPENSATION - INTER-COMPANY	40
SURVEYS - COMPENSATION - NATIONAL INDUSTRIAL CONF. BOAR	40
SURVEYS - WAGE & SALARY	40
SURVEYS BY LINE	90
SYSTEM & PROGRAMMING MANDAYS FORECASTS (QUARTERLY)	120
- T -	
TALLEY WEIGHT STUBS - BILLING COPY	130
TALLEY WEIGHT STUBS - SHIPPING COPY	130
TAPES - C-30	130
TAPES - HOURLY EMPLOYEE	40
TAPES - 8000 BUDGET EXPENSE	130
TAX - FIGURES BY LOCATION	150
TAX - FIGURES ON RETAIL SALES	150
TAX FORMS - 1099 - TOLEDO	150
TAX INFORMATION - OVERSEAS (GOV'T REPORTS)	150
TAX PAPERS - STATE	150
TAX REPORTS - FEDERAL & STATE - ONIZED CLUB	150
TAX REPORTS - FEDERAL HIGHWAY USE TAX	150

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DESCRIPTION	CATEGORY NUMBER
- T -	
TAX REPORTS - SALES & USE TAX	150
TAX REPORTS - STATE DIESEL TAX	150
TAX REPORTS - STATE WAGE	150
TAX RETURNS - EXEMPT ORGANIZATIONS - ONIZED CLUB	150
TAXABLE WAGES - JOURNAL SUPPORT (EDUCATIONAL ASSIST.)	20
TAXES - FEDERAL EXISE	150
TAXES - FICA TELETYPE DEPOSITS - PLANTS	150
TAXES - LOCAL LICENSE	150
TAXES - REPORTING SERVICE	150
TAXES - SOCIAL SEC. RETURNS-STATE & FEDERAL	150
TAXES - STATE & LOCAL - ACCRUAL WORKPAPERS	150
TAXES - STATE FRANCHISE	150
TAXES - WITHHOLDING PLUS SUPPORTING PAPERS	150
TECHNICAL EQUIPMENT REPORT	70
TECHNICAL NOTEBOOKS	70
TECHNICAL REPORTS	70
TEMPORARY STANDARD LOG	70
TEN NINTY-NINE FILE (1099)	130
TERMINATED SALARY EMPLOYEES	40
TERMINATION LOG	40
TERMINATION NOTICES	40
TEST MATERIAL FILES	100
TESTING & ITEM NUMBER FILE	100

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- T -	
TIMBER ACCOUNTING SCHEDULES	130
TIME & PRODUCTION REPORTS - DAILY	130
TIME SLIPS - SALARY FULLTIME	20
TIME STUDIES - SUPPORTING INCENTIVES IN EFFECT	20
TIME STUDIES - SUPPORTING OBSOLETE INCENTIVE PLANS	20
TOOLS, JIGS, FIXTURES - LIBBEY (CARD INDEX)	70
TORQUE TESTER RECORD CARDS	70
TOSS SCHEDULING SYSTEM	90
TRACINGS MACHINE PARTS - ORIGINALS	70
TRADE ASSOCIATION REQUEST AND REPORT FORMS	110
TRADE NOTES RECEIVABLES	60
TRADE SHOW FILES BY SHOW	90
TRADEMARK REGISTRATION - U.S. & FOREIGN	110
TRAINEE FILES	40
TRAINING - EMPLOYEE INFORMATION	40
TRAINING MATERIAL	170
TRANSFER ACCOUNT REPORTS (COPIES)	130
TRANSFER BILLINGS	130
TRANSFER SHEETS	60
TRANSPORTATION REGULATIONS, BULLETINS, TESTING PROCEDUR	80
TRAVEL & EXPENSE RECORDS	130
TRAVEL & EXPENSE RECORDS - EXECUTIVE FILES	130
TRAVEL EXEMPTION - TOLEDO CITY TAX	20

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DESCRIPTION	CATEGORY NUMBER
- T -	
TRIAL BALANCE - A/R & A/P DEPTS.	130
TRIP REPORTS	130
TRUCKING TRIP JACKETS	80
TSCA-ADVERSE EFFECTS TO HEALTH OF EMPLOYEES	50
TSCA-COMPLAINTS & ALLEGATIONS OF PERSONAL INJURY	50
TYPE II TEST SHEETS	100
- U -	
U.S. GOVERNMENT & MILITARY STANDARDS	100
U.S. PATENT APPLICATION FILE - ABANDONED	110
U.S. PATENT APPLICATION FILE - ISSUED	110
U.S. TRADEMARK PROSECUTION FILES - IF DROPPED	110
UNCLAIMED WAGE RECORDS	20
UNEMPLOYMENT CLAIMS	20
UNEMPLOYMENT COMPENSATION DOCUMENTS	40
UNION CARDS - DUES CHECK-OFF AUTHORIZATION	40
UNION CONTRACTS - COPIES	40
UNION CORRESPONDENCE	40
UNION CORRESPONDENCE RECORDS	40
UNION DUES DEDUCTION REPORT	20
UNION GRIEVANCES - COPIES	40
UNION MEETING MINUTES	40

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RECORDS RETENTION ALPHABETIC INDEX
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DESCRIPTION	CATEGORY NUMBER
- U -	
UNION NEGOTIATIONS (MAILOGRAMS)	40
UNIT LOAD DATA RECORDS - CUSTOMER	70
UNIT LOAD DESIGNS - CUSTOMER INFO.	70
UNIT LOAD DIAGRAMS - BY CUSTOMER & MOLD NUMBER , ETC.	100
UNITED PARCEL SERVICE - M.S.R.O. COPIES	120
UNITS REPORTS (FORM 5701)	130
UNIVERSAL FILE - METAL SUBJECT	100
UNIVERSAL FILE - MOLDED SUBJECTS REPORTS - MEETINGS	100
USE & OCCUPANCY INSURANCE DATA	60
- V -	
V. SO. UTILITY EASEMENTS	80
VACATION PAY ACCRUAL REPORT	20
VACATION PAY REQUEST FORMS	20
VISTORS PASS	50
- W -	
W-2 AUDIT TAPES (SALARY)	20
W-2 LIST OF ANNUAL EARNINGS (TABULATED TAPE)-HOURLY	20
W-4 WITHHOLDING FEDERAL EXEMPTION CERTIFICATES	20

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DESCRIPTION	CATEGORY NUMBER
- W -	
WAGE ATTACHMENTS & GARNISHMENTS	40
WAGE PAYMENTS, BENEFITS & SERVICE	130
WAGE RATE & TERMINATION CARDS	20
WARE TRANSFERRED IN AND OUT RECORDS	90
WARE TRANSFERRED TO INDUSTRY DAILY	80
WARE TRANSFERRED TO TOLEDO - MONTHLY	80
WAREHOUSE - LEASED - ACTIVE	110
WAREHOUSE - LEASED - INACTIVE	110
WAREHOUSES - PUBLIC - ACTIVE	110
WAREHOUSES - PUBLIC - INACTIVE	110
WEEKLY SUMMARY EARNINGS REPORT	20
WORK DATA - MONTHLY	70
WORK FORMS REPORTS	70
WORK ORDER STATUS REPORT-MONTHLY - PLT & DIV	10
WORK ORDER STATUS REPORT-NON-901,INCLUDING FORM 821-DIV	10
WORK ORDERS (PREVENTATIVE MAINTENANCE)	170
WORK ORDERS & SUPPORTING PAPERS-CLOSED (PLANT)	10
WORKERS COMP. CLAIMS (FINANCIAL STATUS REPORTS)-PAPER	40
WORKERS COMP. CLAIMS (FINANCIAL STATUS REPORTS)-TAPE	40
WORKMENS COMPENSATION REPORT	50
WORKSHEETS - DECORATING	90
WORKSHEETS - GCMI - GBBA	40
WRITE-OFF OLD OUTSTANDING CHECKS AUTHORIZATIONS	130

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RECORDS MANAGEMENT BULLETIN #1
CLOSED TAX YEARS 1972 - 1977

CLOSED TAX YEARS

This bulletin contains official notification from the Corporate Tax Department of the closing of tax years 1972 through 1977. Specific records from those closed tax years dealing with pending claims and litigation must be retained until the matters are resolved. A schedule of the records that must be retained is included. The Tax Department will issue notifications when additional records can be destroyed.

RECORDS RETENTION DESTROY SCHEDULE

All records for the closed years that are not in the schedule to be retained should be destroyed. A Records Retention Destroy Schedule by department, listing all records being held for open tax years will be distributed to you by your records management coordinator. The attached sample Records Retention Destroy Schedule explains the codes indicating records retained for tax years. Follow the instructions in the records manual to destroy records or to change the retention codes. Return the completed schedules to JoAnn Takats - 16-WHB.

RETAIN THIS RECORDS MANAGEMENT BULLETIN IN SECTION 4 OF YOUR RECORDS RETENTION MANUAL.

8/24/84

OWENS-ILLINOIS
Toledo, Ohio

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Intra-Company

July 10, 1984

To: All Holders Of The Records Manual

Subject: IRS RECORD RETENTION

This will notify you that all records which are not listed on the attached schedules currently being maintained for IRS and state tax audit purposes for the years 1972 thru 1977 inclusive are no longer required and may be destroyed if not required for other purposes. Records which must be retained for 1972 to present listed on the attached schedule are needed to support positions on refund claims, appeals, and tax court cases with total tax in controversy of more than $5 million.

Please notify the appropriate corporate, division, and plant personnel of the general release and the specific exceptions for records which still need to be maintained. A separate notification will be issued to release these records noted in the exceptions.

It is very important that the records noted as exceptions be maintained. Where practical, these should be segregated and identified by type of exception prior to destruction of all other records. Please direct any specific questions regarding the exceptions noted above to me.

M. E. Songer
Tax Department

MES:kah

OWENS - ILLINOIS, INC.
Records which must be retained for pending claims and litigation
June, 1984

Period and Description of Exceptions	Corporate Staff	Closure	Plastic Products	Glass Container	TV Products	Libbey	Kimble	Forest Products	All Other Divisions
1972 to Present: All records relating to Furnace Rebuilds, major and minor and computation of the Reserve for Furnace Rebuild	X			X	X	X	X		
1972 to Present: All foreign affiliate year end binders and workpapers relating to foreign affiliate financial statement presentation, year end pension accrual and foreign tax paid or accrued	X	X	X	X	X	X	X	X	X
July, 1976 to Present: For all California locations All accounts payable vouchers and work order/shop order files related to 901 approvals	X	X	X	X		X		X	
July, 1976 to Present: For ALL locations all A and B invoices, customer purchase orders and exemption certificates	X	X	X	X	X	X	X	X	X
September, 1976 to Present: For all New York locations All accounts payable vouchers and work order/shop order files related to 901 approvals				X					
1976 to Present: All intercompany billings and direct cost/overhead detail for machines manufactured or repaired at Godfrey	X			X		X			
1976 to Present: All boxes on the attached schedule supporting positions on Ohio Sales Tax Case	X	X	X	X	X	X	X	X	X
1976 to Present: All records relating to Timber Casualty losses due to pine beetle, windstorm, drought and fire. Support for cost of timber destroyed, salvaged and reforestation.								X	

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Ohio Tax Case

CASE BOX #	YEAR	DIVISION	DESCRIPTION	RC #
1.	75/76	ALL	Computer Runs- Balances By Major Org Balances By Loc. & Act.	
2.	1977	ALL	Computer Runs- Balances By Major Org Balances By Loc. & Act.	
3.	1978	ALL	Computer Runs- Balances By Major Org Balances By Loc. & Act.	
4.	64-83	ALL	O-I Annual Reports	
5	1975	CORP	General Ledger Jan - June General Ledger July - Oct	6362
6	1975	CORP	Twelve Month Ledger by location	14950
7	1976	ADMIN	Balances by Control Acct. Bal by Location & Acct. Qtr. and Final	14949
8	1977	CORP	Balances by Control Acct. Jan-Jul Bal by Location & Acct	3551
9	1977	CORP	Balances by Control Acct. Balances by Location & Acct Aug - Nov	3612
10	1977	CORP	Balances by Control Acct Balances By Location & Act Dec	8572
11	1978	CORP	Balances By Control Acct Mos. 6,7,8,9,10,11	640
12	1978	CORP	Balances By Control Acct Balances By Location & Acct. Final - Dec	17968
54	1978	CORP	1978 10 Mo. Ledger Salary & Payrol State & Locat Tax	78
13	1976	INTL	Balances By Control Acct Jan - Dec Balances By Acct & Location	6428
14	1976	INTL	Monthly Detail By Acct 4 Qtrs.	2779

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15	1977	INTL	Balances By Location & Acct. Jan-Jun and By Control Acct Monthly Detail Listing 2nd Qtr	6544
16	1977	INTL	Mo Detail Listing By Acct Jul/Dec Balances by Location & Acct. Balances By Control Acct Jul/Dec	6539
17	1978	INTL	Balances By Control Acct Jan - Dec	17915
18	1975	GCD	Ledgers Jan, Feb, Mar. Eastern Div.	6361
50.	1975	GCD	General Ledger Apr, May, Jun	6363
19	1975	GCD	Mo. Listing By Location 1 & 2 clos " " " Acct. " " "	10091
20	1975	GCD	Mo. Listing By Location-Final Balances By Loc/Acct-3rd Close	12490
21	1976	GCD	Balances By Control Acct - March Detail By Location - March Acct. Detail - March	8578
22	1976	GCD	Detail Listing by Acct & Locat-June Balances By Acct & Location-June Detail Listing By Acct - June	5097
23	1976	GCD	Balances by Contr & Loc & Acct- Sept Detail Listing By Acct - Sept Detail Listing By Loca - Sept	5307
24	1977 1976	GCD	By Acct & Location Dec, 1977 Detail By Acct Dec & 3rd Close Detail By Acct & Locat - 12/76 Final Detail By Locaiton 12/76 Final Summary By Control - 3rd Closing	2518
	NO BOX 25			
26	1977	GCD	Listing By Location - March Listing By Account - March Balances By Acct & Location - March	4136
27	1977	GCD	Detail By Acct - June Detail By Location Balances By Control	4139
28	1977	GCD	Detail By Acct - Sept Detail By Location Balances By Control	4226

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29	1977	GCD	Detail By Acct - Final Balances By Contr & Location Final	16136
30	1978	GCD	Balances by Control - March Detail Listing By Acct Detail Listing By Location	18032
31	1978	GCD	Balance By Control - June Balance By Acct Balance By Location	15042
32	1978	GCD	Balance By Control - Sept Detail By Acct Detail By Location	16139
33	1978	GCD	Balances By Control Acct & Loc 3rd Close Mo. Listing By Control Act. Final Detail By Acctoung Final Close	18016
34	1975	CLO	General Ledgers 4	15079
35	1976	CLO	Balances By Acct Jan - Dec Balances By Acct and Location Jan - Dec	15077
36	1977	CLO	Balances By Acct Jan - Dec Balances By Acct and Location Jan - Dec	15076
37	1978	CLO	Balances By Acct Jan - Dec Balances By Acct and Location Jan - Dec	17910
38	1975	TV	General Ledger 9/75 Balances By Control Acct 10,11,12 YTD Final Ledger	Box 1
	1977	TV	Balances By Control Acct & Location 3,6,9,12 Mo Detail Listing By Acct 3,6,9,	
39	1976	TV	Balances By Control Acct/1,2,3,4,5,6,7,8,9,12 Mo. Detail Listing By Acct 3,6,9,12 & Close	Bx 2
40	1978	TV	Balances By Control Acct/Location 3,4,5,6,9,10,11,12, Mo Detail Listing 6,9,12 & Closing	Box 3
52	1975	TV	General Ledger Jul & Agu General Ledger October Journal Voucher Register November Voucher Listing & 6599 Print out - December	6370
53	1978	TV	Mo Detail Listing By Acct Oct, Nov. 10 Mo. Ledger Jan - Oct 78	6445

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41	1975	LIBBEY	General Ledger July, Aug, Sept Balances By Control Acct & Balances by Location & Account - FINAL	
	1976		Balances By Control Acct & Balances By Location & Acct - Jan, Feb, Mar Balances By Control Acct & Balances By Location & Acct - July, Aug, Sept Balances By Control Acct & Balances By Location & Acct - FINAL	
42	1977	LIBBEY	Balances By Control Acct & Balances By Location & Acct - Jan, Feb, Mar Balances By Control Acct & Balances By Location & Acct - June Balances By Control Acct & Balances By Location & Acct - September Balances By Control Acct & Balances By Location & Acct - FINAL	
	1978		Balances By Control Acct & Balances By Location & Acct - Mar Balances By Control Acct & Balances By Location & Acct - June Balances By Control Acct & Balances By Location & Acct - September Balances By Control Acct & Balances By Location & Acct - FINAL	
43	1977 1978	PPD	Bal by Location & Acct 2nd & 3rd Quarter Bal by Control Acct - Final	
44	1976	PPD	Jan Balances & Bal By Location & Acct. Summary Tapes 2/76 Summary By Cont., Location & Acct 3/76 Summary By Cont., Location & Acct 4/76 Summary Reports May, June, July, Aug, Sept, Oct, Nov. Dec.	4427
45	1977	PPD	Beg. Balance, Bal by Cont & Location, and Detail Listing for 1/77 Summary By Acct & Location, & Detail By Acct & Location 2/77 Summary By Acct & Location, & Detail By Acct & Location 3/77	16197
46	1977	PPD	Detail By Acct & Loc, & Summary Tapes 6/77 Detail By Acct & Loc, & Summary Tapes 7/77 Detail By Acct & Loc, & Summary Tapes 8/77	16199
47	1977	PPD	Summary List, & Detail By Acct & Loc 9/77 Summary List, & Detail By Acct & Loc 10/77	16200
48	1977	PPD	Balance by Control, Location & Acct 5/78 Detail By Acct & Location 5/78 Detail By Acct & Location 6/78	6059

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49	1977	PPD	Summary By Acct 9/78 Detail By Acct & Location 9/78 Summary By Acct 10/78 Detail By Acct & Location 10/78	6088
51	1964	CTP	General Ledger	4580
52	1975 1975	Kimble TV	Monthly Detail Listing Nov & Dec & Final Monthly Detail Listing Nov & Dec & Final	5450
53	1976	Kimble	Mar 75 General Ledger Sept 75 General Ledger Dec 75 Voucher Listing Dec 76 Monthly Detail Lisitng	
54	1977 1978 1976	Kimble	1978 Final Mo Detail Listig Balances By Control Account & Location and Account for June 78, June 77, Sept 77, Fianl 77, First & Second Quarter 76	
55	1976	Admin	Ledgers - 1st quarter 76	
56	1976	Admin	June & July 76 Ledgers	
57	1976	Admin	Oct Nove 76 ADM Ledgers	
58		CAS	Ohio Tax Case Tax Department Files	
59		CAS	Ohio Tax Case Tax Department Files	
60		CAS	Ohio Tax Case Tax Department Files	
61		CAS	Ohio Tax Case Tax Department Files	
62			Original Exhibits 15,16,17,18,21,22	
63			Exhibits 1 - 18 and 20 - 30	
64			Exhibits 1 - 18 and 20 - 30	
65			Exhibits 1 - 18 and 20 - 30	
66			Exhibit 19 - Original Returns	

OAMA4201 RECORD RETENTION DESTROY SCHEDULE DATE 06/12/84 PAGE: 1

DIVISION 05
LOCATION 2072

****
*
* LISTED FOR YOUR DEPARTMENT ARE THE RECORDS BOXES DATED FOR DESTRUCTION. *
* PLEASE APPROVE FOR DESTRUCTION BY ENTERING A CHECK MARK IN DESTROY *
* COLUMN OR ASSIGN A NEW DESTRUCTION REVIEW DATE. *
* *
****

DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	06699	08-08-03	1976 CLOSURE INVOICES	01/03/78	00/76	
( )	RC	06700	08-08-03	1976 CLOSURE INVOICES	01/03/78	00/76	

DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	02397	03-10-05	1977 "B" INVOICES	01/08/79	00/77	

-7-

Invoices are listed in category 130 Accounting. Retain total years requirement is 7I. This means the record must be held a full 7 years or longer if IRS release has not been made prior to 7 years from the date of the record. Invoices are also subject to the exceptions to the general release of records prior to 1-1-78. If box 06699 above has invoices thru June 30, 1976, it may be destroyed. If it contains invoices after July 1, 1976, it falls in the exception category and must be held until a new release notice is given upon settlement of certain state tax audits. 1977 "B" Invoices also fall in the exception category and must be held until a new release notice is given.

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DIVISION 03
LOCATION 1013

****
*
* LISTED FOR YOUR DEPARTMENT ARE THE RECORDS BOXES DATED FOR DESTRUCTION. *
* PLEASE APPROVE FOR DESTRUCTION BY ENTERING A CHECK MARK IN DESTROY *
* COLUMN OR ASSIGN A NEW DESTRUCTION REVIEW DATE. *
*
****

DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	03514	05-02-01	MC2 1977 N-ONIZED CLUBS	09/11/79	00/77	
( )	RC	03553	05-02-04	PCR 1977 DIV 11/17 JAN-DEC	05/05/78	00/77	
( )	RC	03557	05-02-04	PCR 1977 DIV 11/MANSFIELD JAN-DEC	05/05/78	00/77	
( )	RC	03559	05-02-04	1977 T & E ANALYSIS (JAN THRU JUNE)	01/08/80	00/77	
( )	RC	03561	05-02-04	1977 T & E ANALYSIS (JULY THRU NOV)	01/08/80	00/77	

-8-

Travel and Expense Records are listed in category 130 Accounting. Retain total years requirement is 5I. This means the record must be held a full 5 years from the period to which it applies which is 12-31-77. The earliest date it can be destroyed is 1-1-83. The I code indicates retention is required for IRS purposes and the record must be retained after 1-1-83 if a release for 1977 records has not been made prior to 1-1-83.

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RECORD MANAGEMENT BULLETIN #2

RECORDS CENTER

A commercial records storage center has been contracted to store Owens-Illinois records. A financial study of various alternatives for records storage was conducted. It was determined that contracting the storage of Owens-Illinois records would result in a substantial savings to Owens-Illinois.

All cartons presently stored at the Owens-Illinois facility at Arrowhead Industrial Park will be moved to:

Leonard Bros. Record Service Center
324 Chestnut St.
Toledo, Ohio 43604

This move will be completed by November 16, 1984.

The Record Center procedures, section 1.4 of the Records Retention Manual, are still in effect with the following exceptions:

1. Locations outside of Toledo will ship cartons to the above address.
2. Phone Leonard Bros., 243-7392, for retrieval of cartons.
3. Contact JoAnn Takats, 7-1023, if you have any questions.

Records inventory listings will continue to be published and mailed to the user groups. There will be no changes in billing procedures until mid 1985.

A revision to section 1.4 will be published in February 1985.

RETAIN THIS RECORDS MANAGEMENT BULLETIN IN SECTION 4 OF YOUR RECORDS RETENTION MANUAL

10/29/84

CONFIDENTIAL

12/29/86

RECORDS MANAGEMENT BULLETIN #3
RETENTION OF VENDOR INVOICES

This bulletin is official notification that effective January 1, 1987, all copies of vendor invoices must be retained at the originating locations, (i.e., plant, sales office, divisional or corporate areas responsible for vendor payment.)

The current retention date for vendor invoices, also called "A" Invoices in the retention manual, are to be retained for open tax years or seven years, whichever is longer. This new change will appear in your revised Records Retention manual under the accounting section (#130), page #162, as follows:

> Invoices - "A" (Vendor) - Original Invoice Retained at Originating Locations - 7-I(IRS)

Additionally, the Purchase Order, Payment Voucher (or Purchase Payment Voucher Transmittal Report) and the M.R.R. must all be kept for I.R.S. open tax years.

The current open tax years are 1978 and forward.

Filing of Invoices
It is recommended that in order to more easily comply with invoice copy request, the invoices be filed in accounting month, register number, voucher number sequence.

Storage of Invoices
If storage space for retaining the invoices becomes a problem, the invoices can be shipped to Toledo. Leonard Archives is the commercial record center that manages the storage of Owens-Illinois' Toledo inactive records. If any plant is interested in this storage facility, please contact me on 247-1023, and I will supply you with all the necessary information that is needed.

Utility Bill Stubs
Utility bill stubs must still be forwarded to Accounts Payable - 6-OSG for attachment to the check. Due to the substantial cost savings to mail the payment within the discount period, it is imperative that you forward copies of the stubs to Accounts Payable department as soon as possible.

A new revised copy of the retention manual will be forwarded to you in the first quarter of 1987. If you need a copy of the manual, or need additional copies, please call me on 247-1023.

JoAnn Takats
Records Management Specialist

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RECORDS MANAGEMENT BULLETIN #4

RETENTION OF PETTY CASH REPORTS

Effective January 1, 1988, all **original** Petty Cash Reports and all original related documentation must be retained at the originating plant location.

NOTE: Copies of all Petty Cash Reports, and copies of the self reimbursement checks must still be forwarded to the Toledo Accounts Payable Department.

The current retention date for Petty Cash Reports is open tax years or seven years, whichever is longer. The current open tax years are 1978 and forward.

Filing of Petty Cash Reports

It is recommended that in order to more easily comply with Petty Cash Report copy request, the reports with all backup be kept in an envelope and filed by date order.

Storage of Petty Cash Reports

If storage space becomes a problem, the reports can be shipped to Toledo. Leonard Archives is the commercial record center that stores Owens-Illinois' inactive records. If any facility is interested, please contact me on 247-1023, and I will supply you with all the necessary information.

JoAnn Takats
Records Administrator

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February 5, 1988

RECORDS MANAGEMENT BULLETIN #5
CLOSED TAX YEARS

Current open tax years are 1978 to present, with the exception of specific records which are listed on the attached schedule dated June 1984. These records must be retained for pending claims and litigations. Please note on the attached schedule, the Tax Department has resolved four of the eight settlements. Questions regarding this schedule should be directed to Mark Songer in the Tax Department.

I will send you notification when additional tax years are closed.

Please distribute to your Toledo, plant, and sales personel.

Jo Ann

JoAnn Takats
1023

OWENS - ILLINOIS, INC.
Records which must be retained for pending claims and litigation
June, 1984

Period and Description of Exceptions	Corporate Staff	Closure	Plastic Products	Glass Container	TV Products	Libbey	Kimble	Forest Products	All Other Divisions
1972 to Present: All records relating to Furnace Rebuilds, major and minor and computation of the Reserve for Furnace Rebuild	X			X	X	X	X		
1972 to Present: All foreign affiliate year end binders and workpapers relating to foreign affiliate financial statement presentation, year end pension accrual and foreign tax paid or accrued	X	X	X	X	X	X	X	X	X
July, 1976 to Present: For all California locations All accounts payable vouchers and work order/shop order files related to 901 approvals	X	X	X	X		X		X	
July, 1976 to Present: For ALL locations all A and B invoices, customer purchase orders and exemption certificates	X	X	X	X	X	X	X	X	X
September, 1976 to Present: For all New York locations All accounts payable vouchers and work order/shop order files related to 901 approvals				X					
1976 to Present: All intercompany billings and direct cost/overhead detail for machines manufactured or repaired at Godfrey	X			X		X			
1976 to Present: All boxes on the attached schedule supporting positions on Ohio Sales Tax Case	X	X	X	X	X	X	X	X	X
1976 to Present: All records relating to Timber Casualty losses due to pine beetle, windstorm, drought and fire. Support for cost of timber destroyed, salvaged and reforestation.								X	

CLOSED -1-

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Ohio Tax Case

CASE BOX #	YEAR	DIVISION	DESCRIPTION	RC #
1.	75/76	ALL	Computer Runs- Balances By Major Org Balances By Loc. & Act.	
2.	1977	ALL	Computer Runs- Balances By Major Org Balances By Loc. & Act.	
3.	1978	ALL	Computer Runs- Balances By Major Org Balances By Loc. & Act.	
4.	64-83	ALL	O-I Annual Reports	
5	1975	CORP	General Ledger Jan - June General Ledger July - Oct	6362
6	1975	CORP	Twelve Month Ledger by location	14950
7	1976	ADMIN	Balances by Control Acct. Bal by Location & Acct. Qtr. and Final	14949
8	1977	CORP	Balances by Control Acct. Jan-Jul Bal by Location & Acct	3551
9	1977	CORP	Balances by Control Acct. Balances by Location & Acct Aug - Nov	3612
10	1977	CORP	Balances by Control Acct Balances By Location & Act Dec	8572
11	1978	CORP	Balances By Control Acct Mos. 6,7,8,9,10,11	640
12	1978	CORP	Balances By Control Acct Balances By Location & Acct. Final - Dec	17968
54	1978	CORP	1978 10 Mo. Ledger Salary & Payrol State & Locat Tax	78
13	1976	INTL	Balances By Control Acct Jan - Dec Balances By Acct & Location	6428
14	1976	INTL	Monthly Detail By Acct 4 Qtrs.	2779

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15	1977	INTL	Balances By Location & Acct. Jan-Jun and By Control Acct Monthly Detail Listing 2nd Qtr	6544
16	1977	INTL	Mo Detail Listing By Acct Jul/Dec Balances by Location & Acct. Balances By Control Acct Jul/Dec	6539
17	1978	INTL	Balances By Control Acct Jan - Dec	17915
18	1975	GCD	Ledgers Jan, Feb, Mar. Eastern Div.	6361
50.	1975	GCD	General Ledger Apr, May, Jun	6363
19	1975	GCD	Mo. Listing By Location 1 & 2 clos " " " Acct. " " "	10091
20	1975	GCD	Mo. Listing By Location-Final Balances By Loc/Acct-3rd Close	12490
21	1976	GCD	Balances By Control Acct - March Detail By Location - March Acct. Detail - March	8578
22	1976	GCD	Detail Listing by Acct & Locat-June Balances By Acct & Location-June Detail Listing By Acct - June	5097
23	1976	GCD	Balances by Contr & Loc & Acct- Sept Detail Listing By Acct - Sept Detail Listing By Loca - Sept	5307
24	1977 1976	GCD	By Acct & Location Dec, 1977 Detail By Acct Dec & 3rd Close Detail By Acct & Locat - 12/76 Final Detail By Locaiton 12/76 Final Summary By Control - 3rd Closing	2518
	NO BOX 25			
26	1977	GCD	Listing By Location - March Listing By Account - March Balances By Acct & Location - March	4136
27	1977	GCD	Detail By Acct - June Detail By Location Balances By Control	4139
28	1977	GCD	Detail By Acct - Sept Detail By Location Balances By Control	4226

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29	1977	GCD	Detail By Acct - Final Balances By Contr & Location Final	16136
30	1978	GCD	Balances by Control - March Detail Listing By Acct Detail Listing By Location	18032
31	1978	GCD	Balance By Control - June Balance By Acct Balance By Location	15042
32	1978	GCD	Balance By Control - Sept Detail By Acct Detail By Location	16139
33	1978	GCD	Balances By Control Acct & Loc 3rd Close Mo. Listing By Control Act. Final Detail By Acctoung Final Close	18016
34	1975	CLO	General Ledgers 4	15079
35	1976	CLO	Balances By Acct Jan - Dec Balances By Acct and Location Jan - Dec	15077
36	1977	CLO	Balances By Acct Jan - Dec Balances By Acct and Location Jan - Dec	15076
37	1978	CLO	Balances By Acct Jan - Dec Balances By Acct and Location Jan - Dec	17910
38	1975	TV	General Ledger 9/75 Balances By Control Acct 10,11,12 YTD Final Ledger	Box 1
	1977	TV	Balances By Control Acct & Location 3,6,9,12 Mo Detail Listing By Acct 3,6,9,	
39	1976	TV	Balances By Control Acct/1,2,3,4,5,6,7,8,9,12 Mo. Detail Listing By Acct 3,6,9,12 & Close	Bx 2
40	1978	TV	Balances By Control Acct/Location 3,4,5,6,9,10,11,12, Mo Detail Listing 6,9,12 & Closing	Box 3
52	1975	TV	General Ledger Jul & Agu General Ledger October Journal Voucher Register November Voucher Listing & 6599 Print out - December	6370
53	1978	TV	Mo Detail Listing By Acct Oct, Nov. 10 Mo. Ledger Jan - Oct 78	6445

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41	1975	LIBBEY	General Ledger July, Aug, Sept Balances By Control Acct & Balances by Location & Account - FINAL	
	1976		Balances By Control Acct & Balances By Location & Acct - Jan, Feb, Mar Balances By Control Acct & Balances By Location & Acct - July, Aug, Sept Balances By Control Acct & Balances By Location & Acct - FINAL	
42	1977	LIBBEY	Balances By Control Acct & Balances By Location & Acct - Jan, Feb, Mar Balances By Control Acct & Balances By Location & Acct - June Balances By Control Acct & Balances By Location & Acct - September Balances By Control Acct & Balances By Location & Acct - FINAL	
	1978		Balances By Control Acct & Balances By Location & Acct - Mar Balances By Control Acct & Balances By Location & Acct - June Balances By Control Acct & Balances By Location & Acct - September Balances By Control Acct & Balances By Location & Acct - FINAL	
43	1977 1978	PPD	Bal by Location & Acct 2nd & 3rd Quarter Bal by Control Acct - Final	
44	1976	PPD	Jan Balances & Bal By Location & Acct. Summary Tapes 2/76 Summary By Cont., Location & Acct 3/76 Summary By Cont., Location & Acct 4/76 Summary Reports May, June, July, Aug, Sept, Oct, Nov. Dec.	4427
45	1977	PPD	Beg. Balance, Bal by Cont & Location, and Detail Listing for 1/77 Summary By Acct & Location, & Detail By Acct & Location 2/77 Summary By Acct & Location, & Detail By Acct & Location 3/77	16197
46	1977	PPD	Detail By Acct & Loc, & Summary Tapes 6/77 Detail By Acct & Loc, & Summary Tapes 7/77 Detail By Acct & Loc, & Summary Tapes 8/77	16199
47	1977	PPD	Summary List, & Detail By Acct & Loc 9/77 Summary List, & Detail By Acct & Loc 10/77	16200
48	1977	PPD	Balance by Control, Location & Acct 5/78 Detail By Acct & Location 5/78 Detail By Acct & Location 6/78	6059

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49	1977	PPD	Summary By Acct 9/78 Detail By Acct & Location 9/78 Summary By Acct 10/78 Detail By Acct & Location 10/78	6088
51	1964	CTP	General Ledger	4580
52	1975 1975	Kimble TV	Monthly Detail Listing Nov & Dec & Final Monthly Detail Listing Nov & Dec & Final	5450
53	1976	Kimble	Mar 75 General Ledger Sept 75 General Ledger Dec 75 Voucher Listing Dec 76 Monthly Detail Lisitng	
54	1977 1978 1976	Kimble	1978 Final Mo Detail Listig Balances By Control Account & Location and Account for June 78, June 77, Sept 77, Fianl 77, First & Second Quarter 76	
55	1976	Admin	Ledgers - 1st quarter 76	
56	1976	Admin	June & July 76 Ledgers	
57	1976	Admin	Oct Nove 76 ADM Ledgers	
58		CAS	Ohio Tax Case Tax Department Files	
59		CAS	Ohio Tax Case Tax Department Files	
60		CAS	Ohio Tax Case Tax Department Files	
61		CAS	Ohio Tax Case Tax Department Files	
62			Original Exhibits 15,16,17,18,21,22	
63			Exhibits 1 - 18 and 20 - 30	
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65			Exhibits 1 - 18 and 20 - 30	
66			Exhibit 19 - Original Returns	

OAMA4201 RECORD RETENTION DESTROY SCHEDULE DATE 06/12/84 PAGE: 1

DIVISION 05
LOCATION 2072

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**********************************************************************************
*                                                                                *
*     LISTED FOR YOUR DEPARTMENT ARE THE RECORDS BOXES DATED FOR DESTRUCTION.    *
*     PLEASE APPROVE FOR DESTRUCTION BY ENTERING A CHECK MARK IN DESTROY         *
*     COLUMN OR ASSIGN A NEW DESTRUCTION REVIEW DATE.                            *
*                                                                                *
**********************************************************************************
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DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	06699	08-08-03	1976 CLOSURE INVOICES	01/03/78	00/76	
( )	RC	06700	08-08-03	1976 CLOSURE INVOICES	01/03/78	00/76	

DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	02397	03-10-05	1977 "B" INVOICES	01/08/79	00/77	

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Invoices are listed in category 130 Accounting. Retain total years requirement is 7I. This means the record must be held a full 7 years or longer if IRS release has not been made prior to 7 years from the date of the record. Invoices are also subject to the exceptions to the general release of records prior to 1-1-78. If box 06699 above has invoices thru June 30, 1976, it may be destroyed. If it contains invoices after July 1, 1976, it falls in the exception category and must be held until a new release notice is given upon settlement of certain state tax audits. 1977 "B" Invoices also fall in the exception category and must be held until a new release notice is given.

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DIVISION 03
LOCATION 1013

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*
* LISTED FOR YOUR DEPARTMENT ARE THE RECORDS BOXES DATED FOR DESTRUCTION.
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* COLUMN OR ASSIGN A NEW DESTRUCTION REVIEW DATE.
*
****

DESTROY	PREFIX	BOX #	SHELF-LOC	CONTENTS/DESCRIPTION	RECV DATE	CURRENT DESTROY DATE	NEW DESTROY DATE
( )	RC	03514	05-02-01	MC2 1977 N-ONIZED CLUBS	09/11/79	00/77	
( )	RC	03553	05-02-04	PCR 1977 DIV 11/17 JAN-DEC	05/05/78	00/77	
( )	RC	03557	05-02-04	PCR 1977 DIV 11/MANSFIELD JAN-DEC	05/05/78	00/77	
( )	RC	03559	05-02-04	1977 T & E ANALYSIS (JAN THRU JUNE)	01/08/80	00/77	
( )	RC	03561	05-02-04	1977 T & E ANALYSIS (JULY THRU NOV)	01/08/80	00/77	

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Travel and Expense Records are listed in category 130 Accounting. Retain total years requirement is 5I. This means the record must be held a full 5 years from the period to which it applies which is 12-31-77. The earliest date it can be destroyed is 1-1-83. The I code indicates retention is required for IRS purposes and the record must be retained after 1-1-83 if a release for 1977 records has not been made prior to 1-1-83.

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O-I Records Management Policy

Effective November 18, 2010

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POLICY STATEMENTS

Owens-Illinois, Inc. ("O-I" or "Company") has developed a Records Management Policy ("RMP") to ensure the retention, protection and management of Company Records (“Records”) that are needed for business or legal reasons, and to facilitate the secure and orderly destruction of expired Records that no longer meet the business or legal needs of the Company. The RMP is the embodiment of long-standing Company policies on Records retention. It is being issued because it is ordinary and good business practice to have a contemporary records management plan. It is the policy of O-I to retain and manage Records in accordance with uniform guidelines, practices and procedures.

The primary goals of the RMP are to:

- Maintain a Company-wide RMP that will properly retain Records for business and legal requirements, while providing consistent and systematic disposal of Records once retention periods have expired;
- Maintain a system to identify Records being retained and allow for more efficient access to those Records;
- Maintain Hold Order procedures to immediately suspend disposal of Records because of anticipated or pending litigation or government investigation, or Records that must be maintained for any other legal requirement or reason;
- Reduce the number of unnecessary and unneeded Records maintained - freeing up valuable floor space and electronic storage space; and
- Educate employees on the importance of proper Records management.

The RMP applies to all Company (and its subsidiaries) operations, worldwide. It is the responsibility of all O-I employees to conform to this policy in the creation, maintenance, and destruction of Records. A violation of the RMP is grounds for disciplinary action up to and including termination of employment.

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RECORDS MANAGEMENT COORDINATION

The O-I General Counsel (the "Records Officer") shall be responsible for the implementation and enforcement of this RMP. The Records Officer shall designate Records Management Liaisons within the Company's functional areas who shall be responsible for the implementation and enforcement of this RMP.

Records Management Liaisons are responsible for establishing a Records review schedule within their area of responsibility. All employees periodically, at the direction of their Records Management Liaison, shall conduct Records reviews for the Records within their control or for which they are responsible.

Records review must be conducted as part of the scheduled Records destruction process. Records review must cover all storage media, including electronic storage, and cover all Company locations. During Records review, Records for which the established retention period has expired shall be destroyed unless a Hold Order requires that the Records be retained. Non-Records should also be disposed of during Records review.

The Records Retention Schedule applies only to the functional area that originates and/or is responsible for action related to the Records. Other functional areas receiving copies of Records should retain such copies only as long as needed, but no longer than the retention period for the original Records. Where multiple functional areas are responsible for action related to a single Record, those functional areas should agree as to which will be responsible for Records retention and document such responsibility. The objective is to minimize the number of copies kept while ensuring that Records are retained as required.

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DEFINITION OF RECORDS

As used throughout the RMP, "Records" are:

> O-I books, papers, documentary materials, and electronic transmissions, regardless of physical form or characteristics, whether stored in paper, microfilm, magnetic media, or other electronic data processing storage media format, created, received or maintained in connection with Company business.

All Records received, created or maintained in the course of Company business are Company property and do not belong to individual employees or functional area. Employees must return Records to the Company upon request or when leaving the Company.

Records created or transmitted using Company resources (e.g., electronic mail (e-mail) or faxes) should be primarily for business-related purposes. The Company reserves the right to access, review, modify and delete the form and content of any Record.

Where multiple copies of the same Record exist within the Company, the “Official Record” is the Record which should be maintained in accordance with this RMP and the Record Retention Schedule. The Official Record generally is the original or master copy of the Record.

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NON-RECORDS

Certain types of documents are non-Records. These are materials that have no remaining value to the Company, and should be disposed of as soon as they have satisfied an immediate business need. Examples of non-Records include the following:

- Duplicate or extra copies (e.g. informational copies), where the official Record copy is retained elsewhere.
- Extra or reading file copies of correspondence or other documents made for convenience or reference.
- Superseded manuals and other directives in functional areas not responsible for maintaining them.
- Materials developed or collected when creating an official Record, which, after the action has been completed, have no remaining information value - e.g., non-final drafts of documents.
- Non-Company books, periodicals, newspapers, posters, or pamphlets not used on an ongoing basis for reference purposes.
- Private materials neither made nor received by the Company in the transaction of business, e.g., employees' personal pay statements, explanations of benefits, etc.
- Informal personal notes of a transitory nature.

Non-Records are not subject to retention schedules and may be destroyed at any time unless, in extraordinary circumstances, a Record Hold Order requires the preservation of particular non-Records.

Non-Records created, transmitted or maintained using Company resources (e.g., e-mail or faxes) should be primarily for business-related purposes. The Company reserves the right to access, review, modify and delete the form and content of any non-Record.

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PRIVILEGED RECORDS and NON-RECORDS

Records and non-Records prepared by, at the request of, or for an attorney or counsel are considered attorney-client privileged Records and non-Records. In addition, work product Records and non-Records include Records and non-Records prepared in anticipation of litigation or agency investigation. Because these Records and non-Records are developed through the attorney-client relationships:

- Do not copy or distribute these Records and non-Records to those other than the recipients listed on the Record or non-Record.
- For distribution, if any, always label such materials as being "Privileged and Confidential."

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VITAL RECORDS

A vital Record is the recorded information that is essential for the continuation or reconstruction of a business. These Records are required for establishing the legal and financial position of the Company and /or are important to preserving the rights of the Company, its employees and its customers.

All Company Records designated as vital to the functional areas of the Company and which, if destroyed, would seriously impair or disrupt normal Company operations, or which, by their loss, might place the Company in a state of legal or fiscal jeopardy are to be secured either by microfilm, system or data backups or by inclusion in O-I's Business Continuity Plan.

While the intent of the Vital Records program is to identify and protect all Records identified as Vital, the final decision to protect, or not to protect, is still a business decision, based on a cost benefit analysis. As a result, it is the responsibility of members of management to determine if any of the Records are vital to O-I and insure their protection. Finally, the designation of a Record as vital does not override the information contained in the Records Retention Schedule, but is intended to inform the retention periods contained in the Records Retention Schedule.

The Company has identified the following categories of documents as being Vital Records:

Some Examples of Vital Records

Accounts Receivable
Audits
Bank Deposit Data
Capital Assets List
Charters and Franchises
Incorporation Certificates
Insurance Policies
Inventory Lists
Leases
Legal Documents
Licenses
*Manufacturing Process Data
Minutes of Directors' Meetings
Notes Receivable
Patent and Copyright Authorizations
*Payroll and personnel Data
Pension Data
Constitutions and Bylaws
Contracts
*Customer Data
Debentures and Bends
*Engineering Data
General Ledgers
Purchase Orders
Plans: Floor, Building, etc.
Receipts of Payment
Sales Data
Stockholders' Lists
Stock Transfer Books
Tax Records
Service Records and Manuals
Social Security Receipts
Statistical and Operations Data
Stock Certificates

(*These records are indispensable for resumption of any level of Normal activity)

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RECORDS CREATION AND RETENTION

For the RMP to work most effectively, every employee must follow certain basic rules and procedures:

- Review and be familiar with the RMP.
- Create Records only for a specific business purpose.
- If an employee becomes aware of any regulatory or legal development that may necessitate a change in the RMP, the employee should contact his / her Records Management Liaison immediately.
- If newly-created Records do not fall within the scope of an existing Record series listed on the Records Retention Schedule, the employee should contact his / her Records Management Liaison.
- Determine the necessary retention period for the Records from the Records Retention Schedule.
- Immediately suspend disposal of Records because of pending or anticipated litigation, investigation, or for any other legal requirement or reason. Obey all Records Hold Orders or corresponding “Urgent Notices” issued by the Legal Department relating to Records. Failure to retain Records specified in a Records Hold Order or corresponding “Urgent Notice” can subject the Company and the employee to fines, sanctions, and other legal penalties.
- The Company decides how long to retain its Records, where to retain them, and when to destroy them in the ordinary course of business.
- Company Records are retained within the Company's control and should not be removed from Company premises by employees, unless specifically authorized or required by the Company.
- Records should be kept in a safe and secure location, and reasonable efforts should be taken to protect them from environmental and other potential harm, including:
    - Ordinary hazards, such as fire, water, mildew, rodents, and insects;
    - Man-made hazards, such as theft, accidental loss, sabotage, and commercial espionage;
    - Unauthorized use, disclosure, and destruction.
- The medium of Records may vary, e.g., hard copy, microfilm, or electronic media. Regardless of the medium, the policies and procedures of the RMP apply to them equally.

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RECORDS HOLD ORDERS

Under certain circumstances, such as when litigation or a government investigation is pending or becomes reasonably foreseeable, routine Records disposal must cease, and affected Records must be held beyond their normal retention periods. In such circumstances, the O-I General Counsel (or designated member of the Legal Department) shall issue a "Record Hold Order" to suspend destruction of affected Records. A Record Hold Order supersedes the Records Retention Schedule or provision that would otherwise require or permit the destruction of any Records subject to the Hold Order. The O-I General Counsel (or designated member of the Legal Department) may issue an "Urgent Notice" or other directive notifying Company employees when the Record Hold Order begins, which Records are affected, reminders of the continuation of the Record Hold Order and the end of the Record Hold Order advising when routine disposal may resume. Upon the issuance of a Record Hold Order, destruction of affected Records shall be suspended immediately. A Record Hold Order will remain in effect until released by the O-I General Counsel (or designated member of the Legal Department.)

The creation, storage and disposal of ESI "electronically stored information" in any form at the Company, however, poses unique challenges due to the vast volume of information, the various methods of creation, the various methods of storage, the ever changing character of the information due to automated electronic systems, and the ease at which ESI is altered or lost as a result of the routine good-faith operation of the Company's electronic information system. The speed at which the Company's electronic information system must operate to meet the challenges of our business may create situations where essential operations alter or destroy ESI despite reasonable efforts to preserve it.

A Record Hold Order requires immediate suspension of all destruction activities of those Records designated in a Hold Order. Hold Orders are issued as required for legal or any other reasons, although they are usually issued to preserve Records required to be held for pending or anticipated litigation or investigations in which the Company is or may become involved.

Anyone receiving lawsuit papers, a subpoena, or a notice of a government audit, legal proceeding or other similar document should promptly contact the Records Officer as well as the Legal Department (or the Tax Department if it is a tax audit), and inform them that the notice has been received. When necessity requires that particular Records be held regardless of their normal destruction date, a Hold Order will be issued and notice of the Hold Order will be sent to appropriate employees to indefinitely suspend the destruction of affected Records. Attorneys in the Legal Department, Senior Management in the Tax Department, and the Records Officer are authorized to issue Hold Orders. Hold Orders apply to all Records designated in the Hold Order.

A Hold Order may be issued even if the normal retention period for the affected Records will not expire for some time. The receiving employees are responsible for identifying Records subject to the Hold Order and working with the appropriate Legal Department

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designee to prepare a list of Records affected. The list shall be marked "Privileged and Confidential prepared at the direction of legal counsel" and sent to the attorney issuing the Hold Order.

O-I General Counsel (or designated member of the Legal Department.) will subsequently notify affected functional areas when a Hold Order is released, which then allows all Records previously held pursuant to the Hold Order to return to the original retention periods as prescribed by the Records Retention Schedule. Questions regarding the status of litigation and Hold Orders shall be directed to the Legal or Tax Department or the Records Officer, as appropriate.

FOLLOWING THE ISSUANCE OF A RECORD HOLD ORDER, THE DELETION OR DESTRUCTION OF RECORDS REASONABLY RELATED TO LITIGATION, AUDIT OR INVESTIGATION IS STRICTLY PROHIBITED BY THE COMPANY.

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E-MAILS

O-I relies on electronic mail (e-mail) communications as a core part of our dealings with other employees, customers, vendors and other business partners. The purpose of e-mail is to conduct Company business. The Company has established a policy with regard to access and disclosure of e-mail messages created, sent or received by Company employees using the Company's e-mail system. The purpose of this policy is to ensure the proper use of the Company's e-mail system and make users aware of what the Company deems to be acceptable and unacceptable use of its e-mail system. E-mail systems were neither designed nor intended to be long-term storage alternatives for Company information.

Because of this:

- Business-critical materials contained in or attached to e-mail must be stored in an appropriate location separate and apart from the Company's e-mail system
- It is the responsibility of the user of the e-mail system to manage business-critical e-mail messages, and attachments, according to O-I's overall Records Retention Schedule. When e-mail messages are filed as part of the documentation supporting an O-I functional area, they will have the same retention as the Records they are filed with.
- For business-critical e-mail, names of sender, recipient, date/time of the message, as well as any attachments must be retained with the message. Records created using an e-mail system may be saved for their approved retention period.
- E-mail that is not saved and stored as business-critical e-mail in a separate location from the Company's e-mail system will be retained for no longer than one year.

For additional information concerning e-mail usage, please refer to the IS-1020 Electronic Mail (E-mail) Policy on the O-I Home Page.

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RECORDS RETENTION SCHEDULE

Records shall be maintained for the time period set forth in the Records Retention Schedule.

All O-I employees shall manage and protect Company Records and maintain Company Records in accordance with the Records Retention Schedule. The primary responsibility for each Record rests with its owner. The "owner" of a Record is defined as the originator or author of the Record.

The Records Retention Schedule sets forth the requirements for all Company (and its subsidiaries) operations, worldwide. To the extent the laws of non-U.S. jurisdictions require different retention periods, the Records Manager should be notified so that the Records Retention Schedule can be amended or a particular exception granted.

The Records Retention Schedule shall identify the number of years that certain Records must be maintained. When that period expires, absent a Hold Order, Records must be destroyed.

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Change Control:

Date	Section(s) updated	Changes made by	Description of Revisions
11/18/2010	All	Ryan Haywood	Original creation

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O-I Records Management Policy

Effective September 11, 2013

WARNING

Policy management and archiving of documents is unique for all entities of the OI group.
Its provisions apply to each local entity provided that they comply with the legislation in force in the country concerned.

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POLICY STATEMENTS

Owens-Illinois, Inc. ("O-I" or "Company") has developed a Records Management Policy ("RMP") to ensure the retention, protection and management of Company Records (“Records”) that are needed for business or legal reasons, and to facilitate the secure and orderly destruction of expired Records that no longer meet the business or legal needs of the Company. The RMP is the embodiment of long-standing Company policies on Records retention. It is being issued because it is ordinary and good business practice to have a contemporary records management plan. It is the policy of O-I to retain and manage Records in accordance with uniform guidelines, practices and procedures.

The primary goals of the RMP are to:

- Maintain a Company-wide RMP that will properly retain Records for business and legal requirements, while providing consistent and systematic disposal of Records once retention periods have expired;
- Maintain a system to identify Records being retained and allow for more efficient access to those Records;
- Identify, retain and disposition records containing personal health information (PHI), personal financial, demographic or other personal information (generally, PII) in accordance with law and good practice.
- Maintain Hold Order procedures to immediately suspend disposal of Records because of anticipated or pending litigation or government investigation, or Records that must be maintained for any other legal requirement or reason;
- Reduce the number of unnecessary and unneeded Records maintained – freeing up valuable floor space and electronic storage space; and
- Educate employees on the importance of proper Records management.

The RMP applies to all Company (and its subsidiaries) operations, worldwide. It is the responsibility of all O-I employees to conform to this policy in the creation, maintenance, and destruction of Records. A violation of the RMP is grounds for disciplinary action up to and including termination of employment.

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RECORDS MANAGEMENT COORDINATION

The O-I General Counsel (the "Records Officer") shall be responsible for the implementation and enforcement of this RMP. The Records Officer shall designate Records Management Liaisons within the Company's functional areas who shall be responsible for the implementation and enforcement of this RMP.

Records Management Liaisons are responsible for establishing a Records review schedule within their area of responsibility. All employees periodically, at the direction of their Records Management Liaison, shall conduct Records reviews for the Records within their control or for which they are responsible.

Records review must be conducted as part of the scheduled Records destruction process. Records review must cover all storage media, including electronic storage, and cover all Company locations. During Records review, Records for which the established retention period has expired shall be destroyed unless a Hold Order requires that the Records be retained. Non-Records should also be disposed of during Records review.

The Records Retention Schedule applies only to the functional area that originates and/or is responsible for action related to the Records. Other functional areas receiving copies of Records should retain such copies only as long as needed, but no longer than the retention period for the original Records. Where multiple functional areas are responsible for action related to a single Record, those functional areas should agree as to which will be responsible for Records retention and document such responsibility. The objective is to minimize the number of copies kept while ensuring that Records are retained as required.

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DEFINITION OF RECORDS

As used throughout the RMP, "Records" are:

- O-I books, papers, documentary materials, and electronic transmissions, regardless of physical form or characteristics, whether stored in paper, microfilm, magnetic media, or other electronic data processing storage media format, created, received or maintained in connection with Company business. All Records received, created or maintained in the course of Company business are Company property and do not belong to individual employees or functional areas. Employees must return Records to the Company upon request or when leaving the Company.

- Records created or transmitted using Company resources (e.g., electronic mail (e-mail) or faxes) should be primarily for business-related purposes. The Company reserves the right to access, review, modify and delete the form and content of any Record as permitted by applicable law.

- Where multiple copies of the same Record exist within the Company, the “Official Record” is the Record which should be maintained in accordance with this RMP and the Record Retention Schedule. The Official Record generally is the original or master copy of the Record.

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NON-RECORDS

Certain types of documents are non-Records. These are materials that have no remaining value to the Company or do not record Company business matters, and should be disposed of as soon as they have satisfied an immediate business need. Examples of non-Records include the following:

- Duplicate or extra copies (e.g. informational copies), where the official Record copy is retained elsewhere.
- Extra or reading file copies of correspondence or other documents made for convenience or reference.
- Superseded manuals and other directives in functional areas not responsible for maintaining them.
- Materials developed or collected when creating an official Record, which, after the action has been completed, have no remaining information value - e.g., non-final drafts of documents.
- Non-Company books, periodicals, newspapers, posters, or pamphlets not used on an ongoing basis for reference purposes.
- Private materials neither made nor received by the Company in the transaction of business, e.g., employees' personal pay statements, explanations of benefits, etc.
- Informal personal notes of a transitory nature.

Non-Records are not subject to retention schedules and may be destroyed at any time unless, in extraordinary circumstances, a Record Hold Order requires the preservation of particular non-Records.

Non-Records created, transmitted or maintained using Company resources (e.g., e-mail or faxes) should be primarily for business-related purposes. The Company reserves the right to access, review, modify and delete the form and content of any non-Record.

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PRIVILEGED RECORDS

Records and data prepared by, at the request of, or for an attorney or counsel, or as part of coummunication with O-I attorneys or outside counsel, are considered attorney-client privileged. Likewise, records and data prepared by O-I attorneys or outside counsel in anticipation of litigation or agency investigation are privileged as attorney work product. Because these Records and data are privileged:

- Do not copy or distribute these Records and non-Records to those other than authorized recipients.
- For distribution, if any, always label such materials as being "Privileged and Confidential."

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VITAL RECORDS

A vital Record is the recorded information that is essential for the continuation or reconstruction of a business. These Records are required for establishing the legal and financial position of the Company and /or are important to preserving the rights of the Company, its employees and its customers.

All Company Records designated as vital to the functional areas of the Company and which, if destroyed, would seriously impair or disrupt normal Company operations, or which, by their loss, might place the Company in a state of legal or fiscal jeopardy are to be secured either by microfilm, system or data backups or by inclusion in O-I's Business Continuity Plan.

While the intent of the Vital Records program is to identify and protect all Records identified as Vital, the final decision to protect, or not to protect, is still a business decision, based on a cost benefit analysis. As a result, it is the responsibility of members of management to determine if any of the Records are vital to O-I and insure their protection. Finally, the designation of a Record as vital does not override the information contained in the Records Retention Schedule, but is intended to inform the retention periods contained in the Records Retention Schedule.

The Company has identified the following categories of documents as being Vital Records:

Some Examples of Vital Records

Accounts Receivable
Audits
Bank Deposit Data
Capital Assets List
Charters and Franchises
Incorporation Certificates
Insurance Policies
Inventory Lists
Leases
Legal Documents
Licenses
*Manufacturing Process Data
Minutes of Directors' Meetings
Notes Receivable
Patent and Copyright Authorizations
*Payroll and personnel Data
Pension Data
Constitutions and Bylaws
Contracts
*Customer Data
Debentures and Bends
*Engineering Data
General Ledgers
Purchase Orders
Plans: Floor, Building, etc.
Receipts of Payment
Sales Data
Stockholders' Lists
Stock Transfer Books
Tax Records
Service Records and Manuals
Social Security Receipts
Statistical and Operations Data
Stock Certificates

(*These records are indispensable for resumption of any level of Normal activity)

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RECORDS CREATION AND RETENTION

For the RMP to work most effectively, every employee must follow certain basic rules and procedures:

- Review and be familiar with the RMP.
- Create Records only for a specific business purpose.
- If an employee becomes aware of any regulatory or legal development that may necessitate a change in the RMP, the employee should contact his / her Records Management Liaison immediately.
- If newly-created Records do not fall within the scope of an existing Record series listed on the Records Retention Schedule, the employee should contact his / her Records Management Liaison.
- Determine the necessary retention period for the Records from the Records Retention Schedule.
- Immediately suspend disposal of Records because of pending or anticipated litigation, investigation, or for any other legal requirement or reason. Obey all Records Hold Orders or corresponding “Urgent Notices” issued by the Legal Department relating to Records. Failure to retain Records specified in a Records Hold Order or corresponding “Urgent Notice” can subject the Company and the employee to fines, sanctions, and other legal penalties.
- The Company decides how long to retain its Records, where to retain them, and when to destroy them in the ordinary course of business.
- Company Records are retained within the Company's control and should not be removed from Company premises by employees, unless specifically authorized or required by the Company.
- Records should be kept in a safe and secure location, and reasonable efforts should be taken to protect them from environmental and other potential harm, including:
    - Ordinary hazards, such as fire, water, mildew, rodents, and insects;
    - Man-made hazards, such as theft, accidental loss, sabotage, and commercial espionage;
    - Unauthorized use, disclosure, and destruction.
- The medium of Records may vary, e.g., hard copy, microfilm, or electronic media. Regardless of the medium, the policies and procedures of the RMP apply to them equally.

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RECORDS HOLD ORDERS

Under certain circumstances, such as when litigation or a government investigation is pending or becomes reasonably foreseeable, routine Records disposal must cease, and affected Records must be held beyond their normal retention periods. In such circumstances, the O-I General Counsel (or designated member of the Legal Department) shall issue a “Record Hold Order” to suspend destruction of affected Records. A Record Hold Order supersedes the Records Retention Schedule or provision that would otherwise require or permit the destruction of any Records subject to the Hold Order. The O-I General Counsel (or designated member of the Legal Department) may issue an “Urgent Notice” or other directive notifying Company employees when the Record Hold Order begins, which Records are affected, reminders of the continuation of the Record Hold Order and the end of the Record Hold Order advising when routine disposal may resume. Upon the issuance of a Record Hold Order, destruction of affected Records shall be suspended immediately. A Record Hold Order will remain in effect until released by the O-I General Counsel (or designated member of the Legal Department.)

The creation, storage and disposal of ESI “electronically stored information” in any form at the Company, however, poses unique challenges due to the vast volume of information, the various methods of creation, the various methods of storage, the ever changing character of the information due to automated electronic systems, and the ease at which ESI is altered or lost as a result of the routine good-faith operation of the Company’s electronic information system. The speed at which the Company’s electronic information system must operate to meet the challenges of our business may create situations where essential operations alter or destroy ESI despite reasonable efforts to preserve it.

A Record Hold Order requires immediate suspension of all destruction activities of those Records designated in a Hold Order. Hold Orders are issued as required for legal or any other reasons, although they are usually issued to preserve Records required to be held for pending or anticipated litigation or investigations in which the Company is or may become involved.

Anyone receiving lawsuit papers, a subpoena, or a notice of a government audit, legal proceeding or other similar document should promptly contact the Records Officer as well as the Legal Department (or the Tax Department if it is a tax audit), and inform them that the notice has been received. When necessity requires that particular Records be held regardless of their normal destruction date, a Hold Order will be issued and notice of the Hold Order will be sent to appropriate employees to indefinitely suspend the destruction of affected Records. Attorneys in the Legal Department, Senior

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Management in the Tax Department, and the Records Officer are authorized to issue Hold Orders. Hold Orders apply to all Records designated in the Hold Order.

A Hold Order may be issued even if the normal retention period for the affected Records will not expire for some time. The receiving employees are responsible for identifying Records subject to the Hold Order and working with the appropriate Legal Department designee to comply with the request.

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O-I General Counsel (or designated member of the Legal Department.) will subsequently notify affected functional areas when a Hold Order is released, which then allows all Records previously held pursuant to the Hold Order to return to the original retention periods as prescribed by the Records Retention Schedule. Questions regarding the status of litigation and Hold Orders shall be directed to the Legal Department, Tax Department if it is a tax audit or the Records Manager, as appropriate.

FOLLOWING THE ISSUANCE OF A RECORD HOLD ORDER, THE DELETION OR DESTRUCTION OF RECORDS REASONABLY RELATED TO LITIGATION, AUDIT OR INVESTIGATION IS STRICTLY PROHIBITED BY THE COMPANY.

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RECORDS RETENTION SCHEDULE

Records shall be maintained for the time period set forth in the Records Retention Schedule.

All O-I employees shall manage and protect Company Records and maintain Company Records in accordance with the Records Retention Schedule. The primary responsibility for each Record rests with its owner. The "owner" of a Record is defined as the originator or author of the Record.

The Records Retention Schedule sets forth the requirements for all Company (and its subsidiaries) operations, worldwide. To the extent the laws of non-U.S. jurisdictions require different retention periods, the Records Manager should be notified so that the Records Retention Schedule can be amended or a particular exception granted.

The Records Retention Schedule shall identify the number of years that certain Records must be maintained. When that period expires, absent a Hold Order, Records must be destroyed.

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PRIVACY AND PERSONALLY IDENTIFIABLE INFORMATION

In the course of conducting O-I business, personnel may create, collect or receive personal health information (PHI), or other personal information about a person, such as financial information, employment information and other personal and personally identifiable information (generally, PII). This information is subject to a wide variety of requirements and restrictions respecting its use, access, transmission to other parties, conditions of storage and maintenance, retention period, and other matters relating to it. Every employee that handles or can access PHI or PII is therefore obligated to know, understand and implement any applicable requirements and restrictions concerning this information.

Requirements and restrictions may include, but are not limited to:

- Restrictions on what information may be collected;
- Restrictions on who may see the information;
- Restrictions on what the information may be used for;
- Restriction on the re-use of the information:
- Restrictions on how long the information may be kept;
- Restrictions on where the information may be sent or transmitted;
- Restrictions on where and how the information may or must be stored; or
- Requirements to submit reports on use or retention of the information.
- Requirements to notify individuals about the purpose and use of such information;
- Requirements to give individuals the opportunity to choose whether such information will be disclosed to a third party or used for a purpose incompatible with the purpose for which it was originally collected;
- Requirements to provide individuals with access to their information and to be able to correct, amend, or delete such information where it is inaccurate;
- These requirements are often situation-specific. Therefore, a universal rule governing the handling of PHI and PII is not possible. In general, however:PHI and PII should not be retained longer than necessary to fulfill the original purposes for which it was collected;
- In the case of information listed on the Records Retention Schedule, the information should be destroyed promptly upon expiry of the retention period set forth thereon, but not before then;
- PHI and PII should not be used for purposes other than the purpose for which it was originally collected without authorization from the O-I Legal Department;
- PHI and PII should not be transmitted across national boundaries without authorization from the O-I Legal Department;
- PHI and PII should be stored under conditions that ensure that it is secure from unauthorized access, including as appropriate physical controls such as locked cabinets or rooms, or electronic controls such as passwords, encryption, etc.;
- PHI and PII should only be accessible on a need-to-know basis by persons involved in its permissible uses; and

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- PHI and PII should be destroyed in a secure manner that preserves the confidentiality of the information.

Requirements applicable in any situation may vary widely by jurisdiction and information type, and may include requirements or restrictions not listed above. Personnel handling PHI or PII must therefore ensure that they know, understand and implement the requirements and restrictions applicable in their jurisdiction and to their data set. Questions or concerns should be directed to the O-I Legal Department.

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Change Control:

Date	Section(s) updated	Changes made by	Description of Revisions
11/18/2010	All	Ryan Haywood	Original creation
10/23/2013	ALL	Suzanne Crawford	Now a Global Policy

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O-I Records Management

Standard Record Schedule

The following retention period abbreviations are used in the Records Retention Schedule. **All retention periods are stated in terms of "years" unless otherwise noted.**

ACT

- Active. While the matter is active. For example, while the contract is active or while an employee is still working for the company.

IND

- Indefinite. A long period of time for retaining records that could not be determined in advance. Every few years these records should be reviewed to determine when they can safely be destroyed.

MAX

- Maximum. Keep records no longer than the numerical period stated.

SUP

- Superseded. Keep the records until they are replaced by more current ones.

"+" - Plus. Some retention periods consist of two or more components. For example, records of capital acquisitions should be kept while they are active plus six years (ACT+6).

Please Note:

This Schedule in not organized by functional group/department but rather by types of records which can be used by any functional group/department.

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2/27/2014

Records Retention Schedule

RS Code	Description	NA O-I Retenton Period
ACC-10	Records related to the accounting for money due to creditors.	7
ACC-10-02	Records received from creditors indicating the quantity, price, and terms of goods sold and requesting payment.	7
ACC-10-04	Records received from creditors describing the quantity, price, and terms of goods sold and requesting payment. Similar to Accounts Payable Invoices.	7
ACC-10-06	Records describing and documenting bad debts written off in a tax year or allowance for bad debts taken in a year with adjustments.	7
ACC-10-08	Records documenting cash payments to creditors.	7
ACC-10-18	Records describing and documenting charitable donations.	7
ACC-10-20	Records detailing business expenses incurred by employees generally while traveling on company business.	7
ACC-10-24	Records documenting the payment of royalties.	7
ACC-10-26	Records documenting the payment of unemployment insurance.	7
ACC-10-30	Records documenting the payment of workers' compensation insurance premiums.	7
ACC-20	Records related to the accounting for money owed by customers.	7
ACC-20-04	Records documenting cash payments received.	7
ACC-20-08	Records documenting sales purchases, including the quantity, description and amount.	7
ACC-30	Records related to the accounting for the capital gain or loss related to the purchase and sale of property.	ACT+7
ACC-30-04	Records documenting the purchase and sale of property and equipment including depreciation, improvements, tax credit and depletion.	ACT+7
ACC-30-10	Records documenting the physical transfer of material and property from one location to another and the related transfer of accounting charges from one account to another.	7

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ACC-30-16	Records related to the sale of property.	7
ACC-40	Records related to summarizing charges to individual accounts.	7
ACC-40-06	Record summarizing accounts receivable transactions.	7
ACC-40-12	Summary records of all accounts	10
ACC-40-14	Records describing transfers in the general ledger from one account to another with a related explanation.	7
ACC-40-26	Summary records of transactions that are further summarized in the general ledger.	7
ACC-50	Records related to the accounting for payroll.	7
ACC-50-02	Records related to the withholding and payment to third parties of amounts garnished from employee wages as required by court order.	7
ACC-50-04	Legal orders received from courts requiring specified amounts of money to be withheld from employee salaries to satisfy a debt.	IND
ACC-50-12	Records documenting payments for payroll for a specified pay period including dates, employee names, withholding amounts and purposes, final check amount and other related information.	7
ACC-50-20	Records indicating time worked, including absences, vacation, sick leave, etc. Includes allocation of time to various projects.	6
ACC-60	Records describing the type, model, and location of property.	ACT+7
ACC-60-10	Records describing the type, model, and location of property and the value for accounting purposes.	ACT+7
ACC-70	Summary record of accounting information.	MAX3
ACC-70-50	Summary record of account balances by debits and credits used to prove the accuracy of the accounting information.	MAX3
ACC-90	Records related to accounting activities not covered in more specific categories.	3
ADM-10	Records documenting internal support or services that are not covered in more specific categories.	3
ADM-10-02	Records documenting the processing of registered mail, insured mail, postage meter activities, etc.	3
ADM-10-03	Including certification and accreditation of equipment, quality assurance reviews and reports, reports on implementation of plans, compliance reviews, and data measuring or estimating impact and compliance.	5

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ADM-10-20-10	Documentation of computer software developed or used.	ACT+1
ADM-15	Reports and records providing management information, e.g., status, progress, etc.	MAX3
ADM-20	Records related to internal planning and forecasting.	ACT+1
ADM-30	Records documenting policies and procedures.	ACT+10
ADM-30-04	Records describing the procedures for continuing the operation of the organization in the event of a disaster. Includes the vital records program to reconstruct the vital information of the organization.	ACT+10
ADM-30-06	Records describing the procedures to be followed in an emergency.	ACT+10
ADM-30-10	Records documenting detailed procedures that implement the policies of the organization.	ACT+10
ADM-30-12	Records specifying which individuals in the organization have authority to approve or authorize specified actions.	ACT+10
ADM-40	Records related to the construction, maintenance, or tracking of company property.	3
ADM-40-06	Records detailing the design of company facilities.	ACT+6
ADM-40-10	Records summarizing leases. Often includes some detailed information about each lease such as starting date, ending date, property location, landlord name, payments, etc.	IND
ADM-40-14	Records documenting the maintenance performed on motor vehicles.	ACT+3
ADM-40-16	Records documenting the design, construction, renovation or repair of offices.	ACT+6
ADM-40-24	Records related to the purchase, sales, leasing and management of real property -- land, buildings, offices.	IND
ADM-50	Records related to records management activities.	3
ADM-50-10	Records listing the type of records, location, responsible party, and other relevant information about records stored in the on-site or off-site records center.	3
ADM-50-12	Records documenting the destruction of records in accordance with the records retention program.	10
ADM-50-14	Records detailing information about the records in the organization obtained during the records inventory.	3
ADM-50-18	Official Records Retention Schedule including legal research, revisions, review comments, approvals and other related information.	ACT+10

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ADM-50-20	Records documenting the movement of records from active to inactive storage.	ACT
ADM-60	Records related to the prevention, investigation and handling of accidents.	3
ADM-60-02	Records documenting the inspection of facilities for potential safety hazards.	3
ADM-60-04	Records documenting investigations performed after accidents or injuries.	3
ADM-60-06	Records documenting the safety programs.	ACT+10
ADM-70	Records related to the protection of employees, property and information from unauthorized activities.	3
ADM-70-02	Lists detailing information about employees and visitors who have been issued security badges.	3
ADM-70-06	Lists identifying employees and visitors issued special security clearances.	3
ADM-70-07	Lists identifying employees and visitors issued special security clearances.	ACT+6
ADM-70-08	Records of investigations of events where security was compromised.	3
ADM-70-14	Records listing information about visitors entering organization premises.	3
ADM-75-01	Permits issued by government permitting the construction, renovation or other use of property.	ACT+3
ADM-75-02	Records of rights obtained from government permitting certain business activities.	ACT+3
ADM-75-03	Records of rights obtained from government permitting certain environmental activities.	ACT+3
ADM-80-10	Records of aircraft maintenance, including logs, inspections, repairs or alterations.	ACT+3
ADM-80-20	Records of pilots, including pilot license records, pilot medical certifications, and pilot flight logs.	ACT+3
ADM-80-30	Flight data recorders retained after notification of NTSB of an accident or occurrence.	1
ADM-80-50	Records of general aviation operations such as flight schedule and approvals, and passenger lists.	1
ADM-90	Records related to administration activities not covered in more specific categories.	MAX3
ADM-90-04	Files arranged in chronological order generally maintained for the convenience of the author; often contain copies of correspondence sent to others.	MAX1

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ADM-90-06	Files containing copies of letters and memoranda sent to others and original letters and memoranda received from others that cannot be placed in more specific categories.	MAX3
ADM-90-09	Note or minutes from meetings. Include department, committee and project meetings.	MAX3
ADM-90-12	Files arranged in chronological order generally maintained for the convenience of the author; often contain copies of correspondence sent to others. Same as Chronological Files.	MAX1
ADM-90-13	Record maintained for reference purposes only.	ACT
ADM-90-15	Lists, directories and other records replaced periodically by newer, updated records.	SUP
ADM-90-20	Short-term documents used to transmit information to another record, e.g., transmittal documents for data entry.	MAX1
ADM-90-30	Short-term documents copies of records.	MAXACT
EMV-10	Records related to environmental auditing procedures and requirements.	IND
ENV-10-04	Records documenting compliance with established auditing procedures and environmental pollution requirements.	ACT+10
ENV-10-08	Records monitoring environmental activities.	ACT+10
ENV-10-12	Records completed during environmental testing.	ACT+10
ENV-20	Records related to hazardous substances.	IND
ENV-20-02	Records related to the disposal of hazardous substances	IND
ENV-20-04	Records related to the transportation of hazardous substances.	IND
ENV-30	Records submitted to government agencies documenting the environmental test results.	ACT+10
ENV-40	Records related to water pollution.	ACT+10
ENV-50	Records related to air pollution.	ACT+10
ENV-50-10	Records documenting testing for pollution in the air.	ACT+10
ENV-90	Records related to environmental issues not covered elsewhere.	3
ENV-95	Records of reportable spills of hazardous substances and their remediation.	50
FIN-10-02	Records reviewing and documenting financial information created as part of an audit performed by an outside person or organization.	10

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FIN-10-04	Records reviewing and documenting financial information created as part of an audit performed by a person in the organization.	7
FIN-20	Records related to banking activities.	7
FIN-20-04	Records comparing and reconciling bank statements to actual bank transactions.	7
FIN-20-12	Checks that have been cashed by the payee and returned by the bank to the issuing organization.	7
FIN-20-16	Records documenting the electronic transfer of funds.	7
FIN-30	Records produced to prepare or support the approved budgets.	ACT+1
FIN-50-02	Records stating financial condition of the organization at the end of the fiscal year. Generally, the same as the Annual or Certified Financial Statements.	10
FIN-50-02-02	Records stating financial condition of the organization at the end of the fiscal year. Generally, will become the Certified Financial Statement after the audit has been completed.	10
FIN-60	Records related to borrowing or lending money.	ACT+7
FIN-60-02	Contract with an outside lending institution to borrow money stating the terms and conditions of the loan.	ACT+7
FIN-60-02-02	Negotiable instruments requesting another to loan money or give credit to the bearer, and promising repayment.	ACT+7
FIN-60-02-04	Contract with an outside lending institution to borrow money stating the terms and conditions of the loan.	ACT+7
FIN-60-04	Records submitted from outside parties, requesting credit for the purchase of products and services, that provide information that will be used to determine whether credit will be extended.	ACT+7
FIN-70	Records related to investing.	ACT+7
FIN-70-06	Records documenting other investments including the proof of ownership, purchase information, annual statements, and investment results.	ACT+7
FIN-70-10	Records documenting investments in derivative instruments.	ACT+7
FIN-75	Records related to creating and implementing financial plans.	ACT+1
FIN-80	Records related to purchasing goods and services.	3

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FIN-80-02	Proposals from outside vendors that indicate the terms and conditions under which they will supply goods or services.	ACT+6
FIN-80-04	Bids submitted by outside vendors that were not accepted.	3
FIN-80-10	Records of purchasing including approved bids, specifications, change orders, delivery, etc.	ACT+6
FIN-80-12	Records requesting the purchase of goods or services.	3
FIN-80-14	Records documenting receipt of goods.	3
FIN-80-20	Listings of qualified supplies.	SUP
HUM-10-04	Claims submitted by employees requesting payment of benefits.	6
HUM-10-04-02	Claims submitted by employees requesting payment of benefits.	6
HUM-10-04-08	Records documenting benefits received by individual employees.	6
HUM-10-04-20	Records describing summary of benefits provided to employees. See HUM-10-04 for detailed benefits.	IND
HUM-10-06	Records designating the persons to whom employee benefits will be paid in the event of the death of the employee.	ACT+6
HUM-10-06-02	Records designating the persons to whom employee benefits will be paid in the event of the death of the employee.	ACT+6
HUM-10-08-02	Records documenting employees who have vested under the pension plans and are eligible for payments under the plan.	IND
HUM-10-10	Records describing insurance plans available to employees.	ACT+6
HUM-10-10-12	Information describing various incentive plans available to qualified participants.	ACT+6
HUM-10-10-18	Records describing pension plans available to employees.	ACT+6
HUM-10-10-22	Files describing benefits available to employees.	ACT+6
HUM-30	Records related to preparing reports required by government.	6
HUM-30-02	Legally required reports related to employee benefits and benefit plans.	6
HUM-30-04	Copies of legally required forms submitted to the government documenting hiring and personal actions.	6

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HUM-30-06	Legally required forms submitted to government to report earnings, deductions, taxes, etc.	6
HUM-30-10	Legally required I-9 forms for employees.	ACT+3
HUM-40	Records related to employee health and safety.	10
HUM-40-02	Records describing job-related accidents and injuries.	10
HUM-40-04	Hearing tests performed on employees.	IND
HUM-40-07	Driving records of individuals including logs and qualifications.	ACT+3
HUM-40-08	Records documenting the communication of information about hazardous substances or dangerous situations to employees.	IND
HUM-40-10	Records documenting general exposure of employees to hazardous substances.	IND
HUM-40-10-02	Records documenting specific instances when employees were exposed to hazardous substances.	IND
HUM-40-10-04	Records maintained in locations where hazardous substances exist that describe the substances, effects, safety precautions, antidotes and other related information.	IND
HUM-40-12	Logs detailing injuries or accidents.	10
HUM-40-16	Records documenting individual employee medical history maintained by the organization.	IND
HUM-40-18	Records documenting the noise levels to which employees are subjected.	2
HUM-40-20	Records documenting occupational injuries and claims involving workers compensation.	ACT+10
HUM-40-30	Records documenting inspection of workplace for safety and occupational hazards.	10
HUM-40-40	Records documenting drug and alcohol testing. See HUM-40-40-10 for negative tests.	5
HUM-40-40-10	Records documenting negative results from drug and alcohol testing. See HUM-40-40 for drug and alcohol testing program records and positive results.	1
HUM-50	Records related to relations between the company, labor unions and employees.	IND
HUM-50-02	Records containing details regarding unsettled controversies which are presented to an arbitrator.	IND
HUM-50-04	Records of agreements between the company and labor unions establishing the terms and conditions of labor-management relations.	IND

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HUM-50-06	Records of labor union meetings.	6
HUM-50-08	Documents describing agreements made between the company and labor unions regulating terms and conditions of employment.	IND
HUM-60	Records related to employment actions involving groups of employees.	6
HUM-60-10-02	Records related to decisions to issue bonuses.	6
HUM-60-10-08	Charts used to determine salary for job classifications.	6
HUM-60-10-10	Information gathered to determine industry and geographic salary guidelines for job classifications.	6
HUM-70	Records documenting detailed personnel actions for employees.	ACT+6
HUM-70-04	Records documenting detailed personnel actions for employees.	6
HUM-70-08	Records documenting appraisals of employee performance.	6
HUM-70-10	Records summarizing personnel actions of employees.	ACT+6
HUM-70-12	Records documenting detailed personnel actions for terminated employees.	6
HUM-70-15	Copies of records about employees maintained by supervisors.	ACT
HUM-70-20	Records related to immigration status.	ACT+3
HUM-75	Records related to hiring employees.	3
HUM-75-02	Records documenting hiring activities for employees that were ultimately hired. Records for hired personnel transferred to Personnel Files after hiring.	6
HUM-75-04	Records documenting hiring activities for individuals who were not hired.	3
HUM-75-06	Records documenting notices of job openings communicated in the media or other means.	3
HUM-75-08	Records documenting hiring for temporary employees.	3
HUM-75-10	Records documenting recruitment activities for open positions. EXAMPLES: Phone Screens, Resumes, Reference Checks, Interview Schedules	3
HUM-75-12	Records documenting the process established for selecting employee to fill job.	ACT+1
HUM-80	Records related to establishing and implementing policies and procedures affecting employees.	ACT+10

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HUM-80-02	Records documenting plans and procedures for affirmative action.	ACT+10
HUM-80-04	Official records establishing business practices for personnel actions.	ACT+10
HUM-80-06	Records detailing job duties and performance expectations for each position.	ACT+10
HUM-85	Records related to training employees.	ACT+3
HUM-85-04	Certifications or licenses required for employees to perform a particular job or task.	ACT+3
HUM-85-06	Records containing materials used to train employees.	ACT+3
HUM-85-08	Records related to the development and operation of company-sponsored training programs and seminars.	ACT+3
LEG-10-02	Records detailing the terms and conditions under which a corporation is formed and organized.	IND
LEG-10-04	Records describing detailed procedures, structures and responsibilities for operating the corporation.	IND
LEG-10-06	Documents documenting creation and legal status of business entities.	IND
LEG-10-08	Records related to the acquistion of, merger with, or divestiture of business units.	IND
LEG-10-12-02	Records summarizing the proceedings at board of directors meetings.	IND
LEG-10-12-02-08	Records summarizing the proceedings of board of director committee meetings. See LEG-10-10 for Board Audit Committee records of complaints regarding external audit and internal accounting system.	IND
LEG-10-12-06	Records summarizing the proceedings at directors or shareholders meetings.	IND
LEG-10-12-10	Records summarizing the proceedings at shareholder meetings.	IND
LEG-10-14	Records detailing ownership of a business. See Treasury TRE-10 for shareholder records.	ACT+6
LEG-10-14-02	Records indicating payment of dividends to shareholders.	7
LEG-10-14-04	Copies of records filed with the Securities and Exchange Commission and supporting documentation related to the issuance of company stock for public sale and annual financial reporting requirements.	IND
LEG-10-16	Records and certificates indicating the company is qualified to do business in a state.	ACT+3

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LEG-20	Records documenting legal obligations between the company and other parties.	ACT+6
LEG-20-06	Records demonstrating compliance with the terms and conditions of contracts.	6
LEG-20-12	Records that legally transfer ownership of property.	IND
LEG-20-16	Contracts between the employer and employees specifying terms and conditions of employment.	ACT+6
LEG-20-20	Contracts specifying the terms and conditions under which the owner of property grants possession of the property to another for a specified period of time.	ACT+6
LEG-20-28	Records documenting the ownership of property.	IND
LEG-20-30	Contracts between the company and other parties, normally involving the sale of goods or services covered by the Uniform Commercial Code.	ACT+6
LEG-20-32	Contracts accompanying the purchase of goods that specify the terms and conditions that apply in case the goods prove to be defective during the warranty period.	ACT+6
LEG-30	Records of rights conveyed by government related to copyrights, trademarks and patents.	ACT+6
LEG-30-02	Records of rights conveyed by government granting exclusive rights to published materials.	ACT+6
LEG-30-03	Records of rights conveyed by government granting exclusive rights to the patent applicant to make, use, and sell products during the life of the patents.	ACT+6
LEG-30-04	Contracts conveying rights to products based on patents that have previously been issued to others for those products.	ACT+6
LEG-30-06	Copies of applications and supporting documentation filed with appropriate government agencies asserting exclusive rights to products and requesting the issuance of patents.	ACT+6
LEG-30-10	Records of rights conveyed by government granting exclusive ownership of a mark, motto, device, or emblem.	ACT+6
LEG-50	Records prepared by the legal department while undertaking legal activities.	ACT+10
LEG-50-02	Records resulting from legal projects which document the specific legal advice provided.	IND
LEG-60	Records related to possible or pending litigation or other legal action.	ACT+6
LEG-60-04	Records claiming wrongdoing and requesting compensation for matters other than law suits.	ACT+6

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LEG-60-08	Detailed records describing the proceedings of cases gone to trial.	ACT+6
LEG-60-10	Records specifying final judgments, settlements or orders related to or resulting from litigation.	IND
LEG-60-10-10	Release agreements.	IND
LEG-60-20	Detailed records describing holds placed on records and other evidence.	ACT+3
LEG-70	Records documenting compliance with legal requirements.	6
LEG-70-10	Internal copies of legally-required reports or forms submitted to government.	6
LEG-70-20	Records related to company-operated political action committee.	7
MAN-10	Records related to the design and development of products	IND
MAN-10-10	Records providing detailed design and specifications for products to be manufactured.	IND
MAN-10-10-10	Drawings of containers and moulds.	ACT+3
MAN-10-20	Records documenting laboratory investigations, studies, test to verify design, safety and quality, laboratory notebooks, etc.	IND
MAN-10-30	Records detailing the specifications for products to be manufactured.	IND
MAN-10-40	Records from research and outside sources that significantly relate to product design and development.	IND
MAN-10-60	Records documenting invention, product conception, proof-of-technology and other issues that could lead to patent applications.	IND
MAN-10-65	Records documenting laboratory protocols and department process improvement.	ACT+10
MAN-10-70	Correspondence related to research and development. Note: ACT is defined as "close of job."	ACT+3
MAN-15	Records related to engineering projects not addressed in other record series.	IND
MAN-20	Records related to the design, development and management of equipment and processes used in manufacturing.	ACT+3
MAN-30	Records related to the construction and modification of manufacturing facilities.	ACT+3

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MAN-30-10	Records related to the maintenance performed on manufacturing plant or facility, including infrastructure equipment such as air conditioning and heating. See MAN-20-10 for Equipment Maintenance.	ACT+3
MAN-30-10-10	Records documenting requests for maintenance on plant and manufacturing facility.	MAX1
MAN-40	Records related to the production of manufactured products.	ACT+3
MAN-40-20	Records specifying requirement for products to be produced according to stated specifications. Includes product specifications, schedule, etc.	6
MAN-40-30	Records documenting manufacturing of test products and designs for internal use only and not distributed to customers.	ACT+1
MAN-40-50	Records documenting production history.	IND
MAN-50	Records documenting the inspection and quality control for products manufactured.	ACT+3
MAN-50-10	Detailed records documenting testing during production which are later summarized in the general quality records. See MAN-50 for general quality records.	ACT+3
MAN-50-20	Records documenting calibration of testing equipment used in product testing.	ACT+3
MAN-50-30	Samples of various bottle designs.	ACT+3
MAN-60	Records documenting receipt and inspection of raw material and parts.	6
MAN-60-10	Records documenting qualities of materials currently in stock.	SUP
MAN-70	Records related to shipping and transportation activities not covered in more specific categories.	6
MAN-70-10	Shipping / Transportation Records related to shipping and transportation activities not covered in more specific categories.	6
MAN-80	Records documenting customer complaints related to manufactured products, evaluation of returned or rejected products, and trending of manufacturing problems.	6
MAR-10	Records related to programs or campaigns for advertising products and services.	6
MAR-10-04	Lists detailing current prices for products and services.	6
MAR-10-06	Records documenting sales brochures, catalogs and price lists.	6

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MAR-20	Records related to communications and contacts with customers.	ACT+6
MAR-20-02	Records documenting customer complaints or problems, and remedial action taken.	6
MAR-20-06	Records of orders placed by customers.	ACT+6
MAR-40	Records related to operation of glass university.	ACT+6
MAR-30	Records related to planning advertising, marketing and sales activities.	ACT+1
MAR-30-02	Information obtained through marketing surveys used to formulate marketing strategies.	IND
MAR-30-04	Records related to future marketing promotions.	ACT+1
MAR-90	Records related to marketing and sales activities not covered in more specific categories.	5
MAR-90-02	Reports detailing sales activity for a particular period of time.	10
MAR-90-04	Records related to trade shows including contracts, costs, activities, and evaluations.	MAX3
PRJ-10	Records related to special projects or studies not covered in more specific categories.	ACT+1
PUB-10	Records related to participation or promotion of community activities, charitable contributions, civic organizations, etc.	3
PUB-10-10	Records related to participation in charitable organizations designated by employees.	3
PUB-20	Records related to communications with and programs for employees not covered by more specific human resources categories.	3
PUB-30	Records related to communications with governmental agencies and monitoring of legislation and regulations.	5
PUB-40	Records related to associations and other cooperative efforts with other organizations in the industry.	ACT
PUB-50	Records produced while preparing publications.	5
PUB-60	Records related to publicity activities.	MAX3
PUB-60-02	Copies of articles about the organization appearing in newspapers or magazines related to important activities or milestones.	IND
PUB-60-04	Copies of published articles describing company events.	IND

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PUB-60-06	Copies of photographs, including negatives, appropriate for use in publicizing individuals within the organization or organization activities.	MAX3
PUB-60-10	Copies of public speeches given by officials.	IND
PUB-80	Records documenting history of the company.	IND
TAX-20-20	Certificate (W-4) documenting permission to withhold taxes from payroll.	ACT+3
TAX-40-10	Tax returns filed with foreign countries.	IND
TAX-40-20	Reports prepared by auditors containing tax audit findings, conclusions, and agreements related to income tax. Includes documentation of carryback and refund claims as well as protests and appeals.	IND
TAX-40-30	Workpapers and other supporting documents for tax returns filed with foreign countries.	IND
TAX-50-20	Reports prepared by auditors containing tax audit findings, conclusions, and agreements related to income tax. Includes documentation of carryback and refund claims as well as protests and appeals.	IND
TAX-50-30	State Income and Franchise Tax returns and workpapers. This includes RAR filings.	IND
TAX-50-40	US Consolidated Federal Income Tax Returns, Partnerships and Separate Company Returns Actually Filed. This includes amended returns and claims for refund.	IND
TAX-50-40-10	Tax Return Workpapers (including amended returns and claims for refunds) for income and partnership returns including separate company pro forma returns	IND
TAX-50-40-20	Internal Revenue Audit Workpapers including information document requests (IDRs), Proposed Adjustments (5701s), Revenue agent reports (RARs), protest and appeals.	IND
TAX-50-70-10	Tax Provision Workpapers including international ETRs, footnote disclosures, cash tax workpapers and other support	10
TAX-60-10	Personal property tax returns and workpapers.	IND
TAX-80	Sales and use tax returns and workpapers.	10
TAX-90	Tax records not covered elsewhere. This includes State annual reports and licenses.	10
TAX-90-10	Tax records not covered elsewhere. These are permanent records.	IND
TAX-90--20	Abandoned and unclaimed property reports, returns and related workpapers.	6

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TAX-90-30	Records of acquisitions, divestiture, reorganizations and tax planning including workpapers and due diligence.	IND
TAX-90-40	Records of potential acquisitions, divestiture, reorganizations and including workpapers and due diligence. These were not carried out.	10
TRE-10-02	Records documenting shareholder activities including proxies, lists, reports, and general information.	ACT+6
TRE-10-04	Records documenting the ownership of stock in the corporation.	ACT+6
TRE-10-06	Summary records indicating stock ownership.	ACT+6
TRE-10-08	General records detailing ownership of company stock.	ACT+6
TRE-10-10	Records documenting the sale of company stock.	ACT+6
TRE-10-12	Records documenting purchase and sale of company stock.	ACT+6
TRE-20-02	Legal proof of insurance coverage.	ACT+6
TRE-20-04	Insurance policies indemnifying the company against loss arising from the acts of employees holding positions of trust.	ACT+6
TRE-20-06	Detailed information regarding the filing of insurance claims.	ACT+6
TRE-20-10-02	Records related to agreements providing coverage against loss.	ACT+6
TRE-20-10-04	Records documenting the expiration or cancellation of insurance coverage.	ACT+6
TRE-20-16	Records related to insurance coverage for product liability, hazardous exposure, or other problems manifesting themselves long after the policy terminates.	IND
TRE-20-18	Bonds posted to indemnify against the failure to perform specified terms and conditions.	ACT+6