Subject: RE: EPA Information Request and Clean Harbors Response

From: Diane Sharrow

To: "Haigh, Jeffery D", Mark Palermo, Lorna Jereza, (bcc: Diane Sharrow)

Date: 02/06/2012 03:21 PM

Mr. Haigh:

Mr. Palermo and I will be meeting in the next week to discuss our separate reviews of the response Clean Harbors submitted. Based on my review, I do have at least one question / request that Clean Harbors may be able to respond to now. Or if necessary, we can request the further information and / or documents under a supplementary request for information.

1) The documents provided in response to our request for a copy of the notification and acknowledgement of consent for the shipment of hazardous waste in question to Clean Harbors Canada, Incorporated in Corunna, Ontario, Canada appears to cover the time period July 29, 2011 to July 28, 2012, and not the incident date of July 23, 2011 nor shipment to Sarnia, Ontario. Are there documents for the earlier period that would include July 23, 2011?

In addition, if you and your client have a preferred date(s) that might work for a meeting in Chicago in late February or early March, could you please let me know?

Thank you,

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

"Haigh, Jeffery D"	Diane; I spoke with my client regarding its reque...	02/06/2012 08:59:52 AM

From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Diane Sharrow/R5/USEPA/US@EPA
Cc: Mark Palermo/R5/USEPA/US@EPA
Date: 02/06/2012 08:59 AM
Subject: RE: EPA - request

Diane;

I spoke with my client regarding its request to meet with you following your review our its response. They believe it would be beneficial to have a meeting to discuss the pertinent details and if needed clarify any additional issues.

Please let me know if this is something that would assist you in your efforts.

Thank you for your kind words and your courtesies, it is very much appreciated.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Environmental Services Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Monday, January 30, 2012 10:29 PM
To: Haigh, Jeffery D
Cc: Palermo.Mark@epa.gov
Subject: Re: EPA - request

Jeff,

My condolences. We lost both my father at 78 and father-in-law at 91 this past June.

I sensed that when you asked for extensions, that you were pressed for time.

I hope the extensions of time helped in some small way.

I have taken a cursory review of the package and will be meeting with counsel in a few days.

Is it still your intent, or do you wish to have a meeting with EPA Region 5, or meet only if we request one?

Thank you and again my condolences to you and your family at this difficult time.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

-----"Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com> wrote: -----
To: Diane Sharrow/R5/USEPA/US@EPA
From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
Date: 01/30/2012 10:40AM
Subject: EPA - request
Diane:

I have been in and out of the office for the past two weeks, having to deal with the passing of my father.

I want to take this opportunity to convey again my appreciation for your cooperation and to let you know that if you need any additional information to clarify our response please feel free to contact me at your convenience.

Sincerely,

Jeff Haigh

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Environmental Services Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

Subject: Re: EPA Information Request and Clean Harbors Response

From: Diane Sharrow

To: "Haigh, Jeffery D", Mark Palermo, (bcc: Diane Sharrow)

Date: 02/09/2012 11:08 AM

Thank you.

If at all possible, could Clean Harbors alo provide the names and telphone numbers of the DOT inspectors who conducted a site inspection at teh Chicagho facility as well?

Thank you again.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

Fw: Sawyer, MI tanker truck explosion - July 2011

Mark Palermo to: Diane Sharrow 10/19/2011 03:33 PM

From: Mark Palermo/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA

Diane--- Here's what I got from Superfund. Mark
----- Forwarded by Mark Palermo/R5/USEPA/US on 10/19/2011 03:32 PM -----

From: Theresa Holz/R5/USEPA/US
To: Mark Palermo/R5/USEPA/US@EPA
Date: 10/19/2011 03:26 PM
Subject: Re: Sawyer, MI tanker truck explosion - July 2011

Mark,

Superfund is not planning to pursue cost recovery for this incident, no attorney was assigned to this site.

I do have analytical information pertaining to the load that was carried in this tanker truck. I'm attaching analytical provided by Clean Harbors and MDEQ. Not all the analytical is directly from the tanker truck, its a bit convoluted so please feel free to contact me to discuss. I do not have the exact information on where each MDEQ sample was collected at this time but I can retrieve that information if needed.

If you need to reach me I am currently in the field, my cell number is 312 802 0676.

Please let me know if you have additional questions.

Theresa Holz
On-Scene Coordinator
USEPA Region 5
Emergency Response Branch
77 W. Jackson
Chicago, Il 60604
312 886 6845

-----Mark Palermo/R5/USEPA/US wrote: -----
To: Theresa Holz/R5/USEPA/US@EPA
From: Mark Palermo/R5/USEPA/US
Date: 10/14/2011 01:07PM
Cc: Diane Sharrow/R5/USEPA/US@EPA
Subject: Sawyer, MI tanker truck explosion - July 2011

Theresa:

Diane Sharrow and I are investigating possible RCRA violations associated with the loading of hazardous wastes in a tanker truck that exploded in Sawyer Michigan in July of this year. I understand you were the OSC that responded for EPA on the resultant spill. We were wondering if Superfund was pursuing cost recovery with respect to this spill, and if so, who would be the attorney on the cost recovery that I could speak to. If not, was there any information you gathered or know of beyond what is provided in the POLREPs concerning what chemical constituents were in the tanker and if they matched what was identified in the manifests?

Any information you have would be appreciated.

Thanks, Mark 07-21-11 Lean Water Analytical Cover Sheet.pdf July 22-Product-DEQ Lab.pdf

Place in ILD 005 450 697

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

October 21, 2010

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

EPA Notice No.: 000972/7E/10

WALLACE M. BELL
CLEAN HARBORS ENVIRONMENTAL SERVICES INC.
G4475 SOUTH DORT HIGHWAY,
BURTON, MI US 48529
MIR000014530

Dear WALLACE M. BELL:

This is to acknowledge receipt of your notice, which was received by EPA on July 13, 2010, of intent to export hazardous waste to Canada as required by Title 40, Code of Federal Regulations, Part 262, Subpart E, Section 262.53 promulgated pursuant to the Resource Conservation and Recovery Act (RCRA). In accordance with the U.S.-Canada Bilateral Agreement on the Transboundary Movement of Hazardous Waste, the U.S. Environmental Protection Agency (EPA) forwarded your notice to the Government of Canada and Canada has no objection to your shipment(s) of hazardous waste.

This letter constitutes the EPA Acknowledgment of Consent for the export of the following hazardous waste as specified in your notice:

Waste Stream 1: SOILS/SOLIDS/DEBRIS CONTAMINATED WITH SPENT POTLINER
Waste Description: SOILS/SOLIDS/DEBRIS CONTAMINATED WITH SPENT POTLINER
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Aluminum smelting by-products or Aluminum remelting by-products
DOT Hazard Class: 4.3
DOT I.D. No. UN3170
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 2: SPENT HALOGENATED SOILS SOLIDS/DEBRIS/RESIDUES
Waste Description: SPENT HALOGENATED SOILS SOLIDS/DEBRIS/RESIDUES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Toxic solids, organic, n.o.s.
DOT Hazard Class: 6.1
DOT I.D. No. UN2811
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 3: CONTAMINATED CORROSIVE ORGANIC SOILS/SOLIDS/DEBRIS
Waste Description: CONTAMINATED CORROSIVE ORGANIC SOILS/SOLIDS/DEBRIS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Toxic solids, corrosive, organic, n.o.s.
DOT Hazard Class: 6.1
DOT I.D. No. UN2928
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 4: CONTAMINATED INORGANIC TOXIC SOILS/SOLIDS/DEBRIS
Waste Description: CONTAMINATED INORGANIC TOXIC SOILS/SOLIDS/DEBRIS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Toxic solid, inorganic, n.o.s.
DOT Hazard Class: 6.1
DOT I.D. No. UN3288
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 5: CONTAMINATED CORROSIVE INORGANIC SOILS/SOLIDS/DEBRIS
Waste Description: CONTAMINATED CORROSIVE INORGANIC SOILS/SOLIDS/DEBRIS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Toxic solid, corrosive, inorganic, n.o.s.
DOT Hazard Class: 6.1
DOT I.D. No. UN3290
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 6: ALKALI SOILS/SOLIDS/DEBRIS/RESIDUES CONTAINING HEAVY METALS
Waste Description: ALKALI SOILS/SOLIDS/DEBRIS/RESIDUES CONTAINING HEAVY METALS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive solids, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN1759
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 7: CONTAMINATED CORROSIVE & TOXIC SOILS/SOLIDS/DEBRIS
Waste Description: CONTAMINATED CORROSIVE & TOXIC SOILS/SOLIDS/DEBRIS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive solids, toxic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN2923
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 8: CONTAMINATED CORROSIVE & BASIC INORGANIC SOILS/SOLIDS/DEBRIS
Waste Description: CONTAMINATED CORROSIVE & BASIC INORGANIC SOILS/SOLIDS/DEBRIS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive solid, basic, inorganic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN3262
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 9: CONTAMINATED ORGANIC CORROSIVE & BASIC SOILS/SOLIDS/DEBRIS
Waste Description: CONTAMINATED ORGANIC CORROSIVE & BASIC SOILS/SOLIDS/DEBRIS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive solid, basic, organic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN3263
Total Volume to be Exported: 5000 US Tons - (2,000 pounds)
Estimated Frequency: 250 loads Annually

Waste Stream 10: NEUTRALIZED SOILS/SOLIDS/DEBRIS/RESIDUES FROM METAL FINISHING WASTE TREATMENT PROCESSES
Waste Description: NEUTRALIZED SOILS/SOLIDS/DEBRIS/RESIDUES FROM METAL FINISHING WASTE TREATMENT PROCESSES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 11: DEBRIS - ORGANIC
Waste Description: DEBRIS - ORGANIC
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 12: DEBRIS - INORGANIC
Waste Description: DEBRIS - INORGANIC
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 13: SOLIDS/SLUDGES FROM PETROLEUM REFINERY
Waste Description: SOLIDS/SLUDGES FROM PETROLEUM REFINERY
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 14: SOIL/SOLID/DEBRIS CONTAMINATED WITH HALOGENATED & NON-HALOGENATED ORGANICS & PESTICIDES
Waste Description: SOIL/SOLID/DEBRIS CONTAMINATED WITH HALOGENATED & NON-HALOGENATED ORGANICS & PESTICIDES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 15: SOIL/SOLID/DEBRIS CONTAMINATED WITH HALOGENATED & NON-HALOGENATED ORGANICS
Waste Description: SOIL/SOLID/DEBRIS CONTAMINATED WITH HALOGENATED & NON-HALOGENATED ORGANICS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 16: SOLIDS/SOILS/SLUDGES WITH ORGANICS
Waste Description: SOLIDS/SOILS/SLUDGES WITH ORGANICS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 17: SOLIDS/SOILS/SLUDGES WITH INORGANICS
Waste Description: SOLIDS/SOILS/SLUDGES WITH INORGANICS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 18: ORGANIC SOLID WASTE FROM A TRANSFER STATION
Waste Description: ORGANIC SOLID WASTE FROM A TRANSFER STATION
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 19: INORGANIC SOLID WASTE FROM A TRANSFER STATION
Waste Description: INORGANIC SOLID WASTE FROM A TRANSFER STATION
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, solid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3077
Total Volume to be Exported: 20000 US Tons - (2,000 pounds)
Estimated Frequency: 1000 loads Annually

Waste Stream 20: BLENDED/BULKED TOXIC ORGANIC LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED TOXIC ORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Flammable liquids, toxic, n.o.s.
DOT Hazard Class: 3
DOT I.D. No. UN1992
Total Volume to be Exported: 5000000 Gallons (US)
Estimated Frequency: 1000 loads Annually

Waste Stream 21: BLENDED/BULKED NON-HALOGENATED/HALOGENATED RICH ORGANIC LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED NON-HALOGENATED/HALOGENATED RICH ORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Flammable liquids, n.o.s.
DOT Hazard Class: 3
DOT I.D. No. UN1993
Total Volume to be Exported: 5000000 Gallons (US)
Estimated Frequency: 1000 loads Annually

Waste Stream 22: BLENDED/BULKED NON-HALOGENATED/HALOGENATED LEAN ORGANIC LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED NON-HALOGENATED/HALOGENATED LEAN ORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Flammable liquids, n.o.s.
DOT Hazard Class: 3
DOT I.D. No. UN1993
Total Volume to be Exported: 5000000 Gallons (US)
Estimated Frequency: 1000 loads Annually

Waste Stream 23: BLENDED/BULKED NON-HALOGENATED CORROSIVE LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED NON-HALOGENATED CORROSIVE LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Flammable liquids, corrosive, n.o.s.
DOT Hazard Class: 3
DOT I.D. No. UN2924
Total Volume to be Exported: 2500000 Gallons (US)
Estimated Frequency: 500 loads Annually

Waste Stream 24: BLENDED/BULKED NON-HALOGENATED TOXIC CORROSIVE LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED NON-HALOGENATED TOXIC CORROSIVE LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Flammable liquid, toxic, corrosive, n.o.s.
DOT Hazard Class: 3
DOT I.D. No. UN3286
Total Volume to be Exported: 2500000 Gallons (US)
Estimated Frequency: 500 loads Annually

Waste Stream 25: SPENT HALOGENATED SOLVENTS & SLURRIES
Waste Description: SPENT HALOGENATED SOLVENTS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Toxic, liquids, organic, n.o.s.
DOT Hazard Class: 6.1
DOT I.D. No. UN2810
Total Volume to be Exported: 2500000 Gallons (US)
Estimated Frequency: 500 loads Annually

Waste Stream 26: SPENT TOXIC INORGANIC LIQUIDS & SLURRIES
Waste Description: SPENT TOXIC INORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Toxic liquid, inorganic, n.o.s.
DOT Hazard Class: 6.1
DOT I.D. No. UN3287
Total Volume to be Exported: 2500000 Gallons (US)
Estimated Frequency: 500 loads Annually

Waste Stream 27: ALKALINE SOLUTIONS CONTAINING HEAVY METALS
Waste Description: ALKALINE SOLUTIONS CONTAINING HEAVY METALS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Caustic alkali liquids, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN1719
Total Volume to be Exported: 2500000 Gallons (US)
Estimated Frequency: 500 loads Annually

Waste Stream 28: WASTE ACIDS
Waste Description: WASTE ACIDS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Chromic acid solution
DOT Hazard Class: 8
DOT I.D. No. UN1755
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 29: WASTE CORROSIVE LIQUIDS & SLURRIES
Waste Description: WASTE CORROSIVE LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquids, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN1760
Total Volume to be Exported: 2500000 Gallons (US)
Estimated Frequency: 500 loads Annually

Waste Stream 30: WASTE ACIDS
Waste Description: WASTE ACIDS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Nitrating acid mixtures with more than 50 percent nitric acid
DOT Hazard Class: 8
DOT I.D. No. UN1796
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 31: HYDROXIDE SOLUTIONS
Waste Description: HYDROXIDE SOLUTIONS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Sodium hydroxide solution
DOT Hazard Class: 8
DOT I.D. No. UN1824
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 32: BLENDED/BULKED NON-HALOGENATED CORROSIVE FLAMMABLE LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED NON-HALOGENATED CORROSIVE FLAMMABLE LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquids, flammable, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN2920
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 33: BLENDED/BULKED NON-HALOGENATED CORROSIVE TOXIC LIQUIDS & SLURRIES
Waste Description: BLENDED/BULKED NON-HALOGENATED CORROSIVE TOXIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquids, toxic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN2922
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 34: WASTE ACIDS
Waste Description: WASTE ACIDS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Sulfuric acid with not more than 51% acid
DOT Hazard Class: 8
DOT I.D. No. UN2796
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 35: WASTE CORROSIVE ACIDIC INORGANIC LIQUIDS & SLURRIES
Waste Description: WASTE CORROSIVE ACIDIC INORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN3264
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 36: WASTE CORROSIVE ACIDIC ORGANIC LIQUIDS & SLURRIES
Waste Description: WASTE CORROSIVE ACIDIC ORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquid, acidic, organic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN3265
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 37: INORGANIC CORROSIVE LIQUIDS & SLURRIES
Waste Description: INORGANIC CORROSIVE LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquid, basic, inorganic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN3266
Total Volume to be Exported: 3500000 Gallons (US)
Estimated Frequency: 700 loads Annually

Waste Stream 38: WASTE CORROSIVE BASIC ORGANIC LIQUIDS & SLURRIES
Waste Description: WASTE CORROSIVE BASIC ORGANIC LIQUIDS & SLURRIES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Corrosive liquid, basic, organic, n.o.s.
DOT Hazard Class: 8
DOT I.D. No. UN3267
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 39: NEUTRALIZED SOLUTIONS FROM METAL FINISHING WASTE TREATMENT PROCESSES
Waste Description: NEUTRALIZED SOLUTIONS FROM METAL FINISHING WASTE TREATMENT PROCESSES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 1250000 Gallons (US)
Estimated Frequency: 250 loads Annually

Waste Stream 40: PETROLEUM REFINERY WASTE LIQUIDS
Waste Description: PETROLEUM REFINERY WASTE LIQUIDS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

Waste Stream 41: INORGANIC SLUDGES & SLURRIES WASTE FROM WASTE TRANSFER SITE
Waste Description: INORGANIC SLUDGES & SLURRIES WASTE FROM WASTE TRANSFER SITE
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

Waste Stream 42: ORGANIC SLUDGES & SLURRIES WASTE FROM WASTE TRANSFER SITE
Waste Description: ORGANIC SLUDGES & SLURRIES WASTE FROM WASTE TRANSFER SITE
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

Waste Stream 43: BLENDED/BULKED HALOGENATED/NON-HALOGENATED SOLVENTS &/OR PESTICIDES
Waste Description: BLENDED/BULKED HALOGENATED/NON-HALOGENATED SOLVENTS &/OR PESTICIDES
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

Waste Stream 44: AQUEOUS LIQUIDS WITH METALS & INORGANICS
Waste Description: AQUEOUS LIQUIDS WITH METALS & INORGANICS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

Waste Stream 45: HALOGENATED/NON-HALOGENATED ORGANIC RICH LIQUIDS
Waste Description: HALOGENATED/NON-HALOGENATED ORGANIC RICH LIQUIDS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

Waste Stream 46: HALOGENATED/NON-HALOGENATED LEAN ORGANIC LIQUIDS
Waste Description: HALOGENATED/NON-HALOGENATED LEAN ORGANIC LIQUIDS
EPA Waste Code: SEE ATTACHMENT
DOT Shipping Name: Environmentally hazardous substances, liquid, n.o.s.
DOT Hazard Class: 9
DOT I.D. No. UN3082
Total Volume to be Exported: 3000000 Gallons (US)
Estimated Frequency: 600 loads Annually

You may ship this waste to the following receiving facility:

CLEAN HARBORS CANADA, INC.
4090 TELFER ROAD, R.R. # 1,
CORUNNA, ON, CA

Shipments may occur during the period from October 18, 2010, to October 15, 2011.

YOUR NOTIFICATION OF INTENT TO EXPORT ON WHICH THIS CONSENT IS BASED LISTED NUMEROUS EPA WASTE NUMBERS (SEE ATTACHMENT A). THIS ATTACHMENT IS INCORPORATED INTO THIS CONSENT BY REFERENCE AND MUST BE ATTACHED TO THE CONSENT COPY ACCOMPANYING EACH SHIPMENT. ONLY WASTES WITH EPA CODES INCLUDED IN THE NOTICE OF INTENT TO EXPORT AND SPECIFICALLY CONSENTED TO BY CANADA MAY BE EXPORTED.

Please be advised of the following special RCRA requirements for export shipments of hazardous waste. These requirements are found at Title 40 Code of Federal Regulations, Part 262, Subpart E - Exports of Hazardous Waste.

1. If the major terms of the original notice should change, you must renotify EPA. Please send your renotification to: Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington D.C. 20460, "Attention: Notification to Export" prominently displayed on the front of the envelope. (§262.53(c))
2. The hazardous waste manifest for each shipment must identify the point of departure from the United States in Item 16. (§262.54(c))
3. A copy of this Acknowledgment of Consent must be attached to the U.S. hazardous waste manifest that accompanies each shipment of hazardous waste. (§262.54(h))
4. You must provide the transporter with an additional copy of the manifest for delivery to the U.S. Customs official at the point the hazardous waste leaves the United States in accordance with §263.20(g)(4). (§262.54(i))
5. You must file an exception report with the Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), Environmental Protection Agency, Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20460, if you have not received a copy of the manifest signed by the transporter stating the date and place of departure from the U.S. within forty-five (45) days from the date it was accepted by the initial transporter; if within ninety (90) days from the date the waste was accepted by the initial transporter, the primary exporter has not received written confirmation from the consignee that the hazardous waste was received; and the waste is returned to the United States. (§262.55)

6. You must file an annual report by March 1 of each year with the Environmental Protection Agency, Office of Federal Activities, International Compliance Assurance Division (2254A), Ariel Rios Building, 1200 Pennsylvania Avenue, N.W., Washington, D.C. 20460. (§262.56)

All shipments of hazardous waste must conform to all applicable state and federal hazardous waste regulations and transportation requirements, as well as these specific export requirements.

Any questions you may have concerning this Acknowledgment of Consent or other export requirements may be directed to Tyria Nesmith, EPA, Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), telephone number 202-564-4369, fax number , nesmith.tyria@epa.gov.

Sincerely,

Tyria Nesmith

For Robert G. Heiss, Director
International Compliance Assurance Division
Office of Federal Activities

000972/7E/10

Title 40, CFR 262, Subpart E, Section 262.53
INTERNATIONAL SHIPMENTS

ATTACHMENT B

The EPA codes listed below are permitted to be accepted at Clean Harbors Environmental Services Inc. transfer facility in Burton, MI and may be included in any waste stream for which this notice applies.

D001	F004	K023	K091	K159	P039	P097	U001	U051	U102	U152	U204	U365
D002	F005	K024	K093	K160	P040	P098	U002	U052	U103	U153	U205	U366
D003	F006	K025	K094	K161	P041	P099	U003	U053	U105	U154	U206	U367
D004	F007	K026	K095	K169	P042	P101	U004	U055	U106	U155	U207	U368
D005	F008	K027	K096	K170	P043	P102	U005	U056	U107	U156	U208	U369
D006	F009	K028	K097	K171	P044	P103	U006	U057	U108	U157	U209	U370
D007	F010	K029	K098	K172	P045	P104	U007	U058	U109	U158	U210	U371
D008	F011	K030	K099	K174	P046	P105	U008	U059	U110	U159	U211	U372
D009	F012	K031	K100	K175	P047	P106	U009	U060	U111	U160	U213	U373
D010	F019	K032	K101	K176	P048	P107	U010	U061	U112	U161	U214	U374
D011	F020	K033	K102	K177	P049	P108	U011	U062	U113	U162	U215	U375
D012	F021	K034	K103	K178	P050	P109	U012	U063	U114	U163	U216	U376
D013	F022	K035	K104		P051	P110	U014	U064	U115	U164	U217	U377
D014	F023	K036	K105		P054	P111	U015	U066	U116	U165	U218	U378
D015	F024	K037	K106	P001	P056	P112	U016	U067	U117	U166	U219	U379
D016	F025	K038	K107	P002	P057	P113	U017	U068	U118	U167	U220	U380
D017	F026	K039	K108	P003	P058	P114	U018	U069	U119	U168	U221	U381
D018	F027	K040	K109	P004	P059	P115	U019	U070	U120	U169	U222	U382
D019	F028	K041	K110	P005	P060	P116	U020	U071	U121	U170	U223	U383
D020	F032	K042	K111	P006	P062	P118	U021	U072	U122	U171	U225	U384
D021	F034	K043	K112	P007	P063	P119	U022	U073	U123	U172	U226	U385
D022	F035	K044	K113	P008	P064	P120	U023	U074	U124	U173	U227	U386
D023	F037	K045	K114	P009	P065	P121	U024	U075	U125	U174	U228	U387
D024	F038	K046	K115	P010	P066	P122	U025	U076	U126	U176	U234	U388
D025	F039	K047	K116	P011	P067	P123	U026	U077	U127	U177	U235	U389
D026		K048	K117	P012	P068	P127	U027	U078	U128	U178	U236	U390
D027		K049	K118	P013	P069	P128	U028	U079	U129	U179	U237	U391
D028	K001	K050	K123	P014	P070	P185	U029	U080	U130	U180	U238	U392
D029	K002	K051	K124	P015	P071	P187	U030	U081	U131	U181	U239	U393
D030	K003	K052	K125	P016	P072	P188	U031	U082	U132	U182	U240	U394
D031	K004	K060	K126	P017	P073	P189	U032	U083	U133	U183	U243	U395
D032	K005	K061	K131	P018	P074	P190	U033	U084	U134	U184	U244	U396
D033	K006	K062	K132	P020	P075	P191	U034	U085	U135	U185	U246	U397
D034	K007	K064	K136	P021	P076	P192	U035	U086	U136	U186	U247	U398
D035	K008	K065	K140	P022	P077	P193	U036	U087	U137	U187	U248	U399
D036	K009	K066	K141	P023	P078	P194	U037	U088	U138	U188	U249	U400
D037	K010	K069	K142	P024	P081	P195	U038	U089	U140	U189	U271	U401
D038	K011	K070	K143	P026	P082	P196	U039	U090	U141	U190	U277	U402
D039	K013	K071	K144	P027	P084	P197	U041	U091	U142	U191	U278	U403
D040	K014	K072	K145	P028	P085	P198	U042	U092	U143	U192	U279	U404
D041	K015	K073	K147	P029	P087	P199	U043	U093	U144	U193	U280	U405
D042	K016	K083	K148	P030	P088	P200	U044	U094	U145	U194	U328	U406
D043	K017	K084	K149	P031	P089	P201	U045	U095	U146	U196	U353	U407
	K018	K085	K150	P033	P092	P202	U046	U096	U147	U197	U359	U408
	K019	K086	K151	P034	P093	P203	U047	U097	U148	U200	U361	U409
F001	K020	K087	K156	P036	P094	P204	U048	U098	U149	U201	U362	U410
F002	K021	K088	K157	P037	P095	P205	U049	U099	U150	U202	U363	U411
F003	K022	K090	K158	P038	P096		U050	U101	U151	U203	U364	

(*) Constituents to be added on shipping papers

Importer name: Clean Harbors Canada, Inc.
Address: RR #1 (Telfer Road) Corunna, Ontario, N0N 1G0

CleanHarbors
ENVIRONMENTAL SERVICES®

Clean Harbors Recycling Services of Chicago

Laboratory Training Record

Document # SC-F002-01

The following individual has received training and fully understands all aspects of the Waste Analysis Plan

Name: LATONJA ARMSTRONG Signature: LaTonya Armstrong

Date: 09/03/09 Trainer: Matilda McFarland

Document review is required on an annual basis. The following is the review history for the above individual:

Review Date	Signature
09.13.10	LaTonya Armstrong
12/6/11	LaTonya Armstrong

"People and Technology Creating a Better Environment"

ENVIRONMENTAL SERVICES®

Clean Harbors Recycling Services of Chicago

Laboratory Training Record

Document # SC-F002-01

The following individual has received training and fully understands all aspects of the Waste Analysis Plan

Name: MATILDA McFARLAND Signature: [signature]

Date: 01.07.08 Trainer: [signature]

Document review is required on an annual basis. The following is the review history for the above individual:

Review Date	Signature
02.02.2009	[signature]
02/23/2010	[signature]
04/07/2011	[signature]
04/16/2014	[signature]

"People and Technology Creating a Better Environment"

CleanHarbors®
ENVIRONMENTAL SERVICES, INC.

WASTE ANALYSIS PLAN

Recycling Services of Chicago LLC
1445 West 42nd Street
Chicago, Illinois 60609

Revised 10/25/02
Implemented in the Chicago Recycle Center Laboratory on January 2, 2003

Review Date:	Reviewer:
1-6-04	
1-7-05	
1-6-06	
1-2-07	
~~9-6-07~~	~~Nancy Fortson~~ 9/26/07
01-07-08	
02-02-09	
02/23/2010	
02/07/2011	

safety-kleen.

MEMORANDUM

DATE: **October 25, 2002**

To: **Alfred Aghapour**
Romas Cesas
Joe Nowosielski
Jim Ostowski
Kim Walsh

From: **Gary Malinowski**

SUBJECT: **Chicago RC WAP Changes**

IEPA approved the modifications requested by Chicago to the Waste Analysis Plan (WAP) on October 22, 2002. The modifications impact how waste is profiled by the generator and what tests Chicago will be required to conduct upon the receipt sample.

Provided below is a summary of the **changes** made to the WAP based upon what Chicago submitted for approval.

I. Profiling Process

A. Industrial and other Sources (FRS)

1. All customers utilizing the Chicago RC will be subject to review as an Industrial (FRS) source. The Chicago RC WAP no longer identifies the categories (e.g., core and industry specific/SIPs) of generators managed by other RCs. Generators may now use knowledge for all Industrial and other waste sources (FRS).

2. All new (effective 10/22/02) N/H waste profiles (FRS) will not be required to supply TCLP data to verify that the waste is non-hazardous.

3. The waste profile survey must identify the following information:

   a. Customer information;
   b. DOT shipping information;
   c. regulatory information (section c.)
   d. material composition
   e. reactive characteristics;
   f. metal information (section e.)
   g. physical characteristics
   h. generator certification.

4. There are 7 instances when a representative sample of the generator's waste is required. Specifically, if the generator **cannot** provide accurate information regarding:

a. the process generating the waste;
b. identification of EPA waste codes;
c. US DOT Description;
d. Land Disposal Restriction (LDR) information;
e. Material Composition;
f. flammability range;
g. pH range.

5. In instances when a sample is collected, the parameters in which it will be analyzed for are the same that the Tech Center used to perform. See Table 3-1, which incorporates attachment 3-1 through 3-7 of the WAP dated 5/8/02, revision 0.

6. In instances when a sample is required to be obtained, the sampling procedures are outlined in Table 3-2 of the WAP dated 5/8/02, revision 0.

7. All profiles will need to be re-evaluated through the profiling process at least once every 5 years (assuming that the waste and process generating it have not changed).

II. Receipt Analysis

1. The sampling frequency for FRS waste received **has** changed. Only the first time that a profiled waste stream is received is it required to be analyzed for the applicable parameters identified in attachment 3-1 through 3-6 of the WAP dated 5/8/02, revision 0. Upon approval, subsequent shipments are subject to the evaluation identified in number 2 below.

2. All waste received is subject to a visual inspection and "fingerprint" evaluation. The fingerprint analyses are identified in Table 3-3 of the WAP dated 5/8/02, revision 0. Chicago must verify that the waste sampled matches the profile. Tolerance limits for these parameters are identified in Table 3-4 of the WAP dated 5/8/02, revision 0. If the sample exceeds any of the tolerance limits, then a new profile must be created, or the waste must be rejected.

3. Waste which will not be processed by Chicago does not have to be sampled and analyzed, **IF** the profile has been approved. This would include waste shipped for storage only.

4. The WAP now **only** requires the analysis for PCBs in waste containing oils and/or paints.

cc: Bob Burke
David DeSha
A: 121-M-11 (WAP) Guidance 10/02

3.0 WASTE CHARACTERISTICS

This section describes the waste characteristics of the materials managed at the Safety-Kleen Systems, Inc. - Chicago Recycle Center. A Waste Analysis Plan is provided in this section that describes the activities conducted by the facility to ensure that these materials are properly managed at the facility.

3.1 GENERAL CHEMICAL INFORMATION

The facility receives a variety of waste types for storage and/or recycling, such as ignitable characteristic wastes (D001), corrosive characteristic wastes (D002), toxicity characteristic wastes (D004 – D011, D018, D019, D021 – D030, D032 – D043), wastes from non-specific sources (F-code wastes), wastes from specific sources (K-code wastes), and certain commercial chemical products, manufacturing intermediates, or off-specification commercial chemical products (U-code wastes). These wastes are generally solvents or organic in nature. The facility also receives solid wastes (non-hazardous) and wastes regulated as special wastes in the state of Illinois.

Examples of the types of waste the facility may accept include chlorinated solvents such as perchloroethylene used in dry cleaning, tetrahydrofuran from pharmaceutical manufacturers, and aliphatic and aromatic solvents such as mineral spirits.

The facility also functions as a tolling facility whereby a specific waste from a specific customer is segregated, reclaimed to the customer's specifications, and returned directly for reuse to the original generator.

The EPA hazardous waste numbers associated with the wastes the facility accepts are identified in the Part A Permit Application. The facility does not accept, for transfer or treatment, municipal garbage and refuse, infectious wastes, radioactive wastes, or reactive wastes.

3.2 WASTE ANALYSIS PLAN

This Waste Analysis Plan (WAP) was developed in accordance with the requirements of 40 CFR 265.14 and 35 IAC 724.113. This WAP includes sections on the facility description, selecting waste analysis parameters, selecting sampling procedures, selecting a laboratory and testing and analytical procedures, selecting waste re-evaluation frequencies, and special procedural requirements.

3.2.1 Facility Description

The Chicago Recycle Center is an organic chemicals reclamation and recycling facility that accepts organic chemicals and solvent wastes from Safety-Kleen toll customers and other industrial and commercial facilities and processes the materials to recover clean material for reuse or sale. The facility also functions as a fuels blending and storage facility for hazardous wastes.

3.2.1.1 Facility Processes and Activities

This section provides a description of major on-site processes and activities that generate or manage hazardous wastes.

3.2.1.1.1 Waste Management Processes

The Chicago Recycle Center receives used solvents, solvent mixtures, and other solvent-containing liquid and solid wastes from Safety-Kleen service centers, other Safety-Kleen Recycle Centers, toll customers, and from industrial and commercial users. Wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. Industries served by the Chicago Recycle Center include chemical manufacturers, pharmaceutical manufacturers, paint manufacturers, automobile, appliance and electronics manufacturers, foundries, metal fabrication shops, maintenance shops, and aircraft manufacturers in Illinois and other states. Wastes are received in containers (e.g., drums and bulk). Used solvents, solvent mixtures, and other types of wastes are stored at the facility and may be

subsequently treated by a combination of processes including neutralization, distillation, fractionation, liquid-liquid extraction, evaporation, mixing, stripping, blending, filtration, and drying. Recovered products are either returned to Safety-Kleen toll customers or marketed as recovered solvent. Wastes may be blended into fuel for the cement industry or shipped offsite for further treatment or disposal.

The facility also has typical additional operations associated with these processes. These additional operations include raw material handling, equipment maintenance, and laboratories.

3.2.1.1.2 Raw Material Handling

Safety-Kleen uses several raw materials in the treatment processes that become characteristic or listed wastes when they are discarded; are off specification; become residues in tanks, containers, or equipment; or are spilled. These waste materials are either accumulated in tanks or are stored in the container storage area prior to shipment offsite for treatment or disposal.

3.2.1.1.3 Maintenance Activities

The maintenance department uses various oils, paints, heat transfer fluids, and solvents, that when discarded, can meet the definition of a hazardous waste. These wastes are typically collected in containers for off-site disposal.

3.2.1.1.4 Laboratory Activities

Laboratory activities generate a wide variety of waste streams that can meet the definition of hazardous waste. These streams can include residues from solvent extractions, titrations, or chromatography or are discarded and/or off-specification chemicals. These waste streams are generally sent offsite for treatment or returned to the process. Thermometers and other mercury containing devices can also be generated. These waste materials are typically sent offsite for recovery. The above materials are accumulated in containers prior to shipment to offsite facilities.

3.2.1.1.5 Site-Wide Wastes

Several waste streams are generated from normal site-wide activities. These waste streams typically include items such as spill cleanup, oils, and paint. These materials are properly classified, accumulated, and sent off site for treatment, disposal, and/or recycling.

3.2.1.2 Identification/Classification of Wastes

As described above in Section 3.1, the facility receives a variety of waste types for storage and/or recycling, such as ignitable characteristic wastes (D001), corrosive characteristic wastes (D002), toxicity characteristic wastes (D004 – D011, D018, D019, D021 – D030, D032 – D043), wastes from non-specific sources (F-code wastes), wastes from specific sources (K-code wastes), and certain commercial chemical products, manufacturing intermediates, or off-specification commercial chemical products (U-code wastes). These wastes are generally solvents or organic in nature. The facility also receives solid wastes (non-hazardous) and wastes regulated as special wastes in the state of Illinois.

As described in Section 3.2.1.1, the facility also generates wastes related to the management of the facility. These wastes are usually still bottoms, residuals, and other related materials from the management of the wastes accepted at the facility. Small amounts of other wastes (e.g., laboratory solvents, etc.) may also be generated. These are either shipped directly offsite (e.g., lab packs) or may be managed in one of the hazardous waste management units at the facility. These facility generated wastes undergo the same waste analysis procedures as those accepted for management from offsite sources.

3.2.1.3 Waste Management Units

The Chicago Recycle Center has two types of storage units at the facility that are used to manage hazardous wastes, tanks and a container storage area. In addition, there are several process units at the facility that are exempt from the permitting requirements of the hazardous waste regulations.

There are 105 tanks at the Chicago Recycle Center (75 existing and 30 proposed) that are used to manage hazardous wastes at the facility. These tanks may be used for storage prior to treatment, blending, or prior to offsite shipment of the material.

There is one container storage area at the Chicago Recycle Center that is used to manage hazardous wastes at the facility. This container storage area may be used for storage prior to treatment or prior to offsite shipment of the material.

Hazardous wastes generated by the Chicago Recycle Center are managed in less-than-90-day containers throughout the facility or in one of the permitted storage tanks. The containers are managed in accordance with the 90 day storage requirement for generators.

3.2.2 Selecting Waste Analysis Parameters

Waste analysis parameters are selected based on confirming the identification/classification and compatibility of the wastes. Analytical results are used in identifying the waste constituents, determining compatibility, and process/design considerations.

3.2.2.1 Site Generated Wastes

Newly generated waste streams will first be characterized by generator knowledge. Based on the generator knowledge determinations, the waste stream may be sampled and analyzed for appropriate parameters such as flashpoint, pH, reactivity, toxicity characteristics, volatile and semi-volatile organic compounds, etc. Other analytical parameters will be determined on a case-by-case basis (for example, identifying underlying hazardous constituents).

The generator knowledge information (and analysis, when required) will be used to properly classify the material. Once the material has been properly classified, a determination will be made as to its ultimate management. If the material is be processed at the Chicago Recycle Center, the material will undergo the same review for off-site materials. If the material is to be shipped off-

site, additional parameters may be required by the ultimate treatment, storage, and disposal facility. These additional parameters will be evaluated as required by the offsite facility.

3.2.2.2 Wastes Received from Offsite

The analytical parameters for wastes received from offsite are determined based on the physical and chemical characteristics of a material and the management method(s) at the Chicago Recycle Center for that material. The Chicago Recycle Center has prepared lists of the analytical parameters used to determine the initial approval of a material for management at the facility as well as to obtain process and operating information used to assist the facility in the management of a particular material. These lists are identified in Table 3-1.

Table 3-1

Analytical Parameters for Wastes Received from Offsite

Phase Characteristic	Management Classification	Location
Liquid - Single Phase	Recoverable	Attachment 3-1
Liquid - Multiphase	Recoverable	Attachment 3-2
Liquid - Single Phase	General[1]	Attachment 3-3
Liquid - Multiphase	General[1]	Attachment 3-4
Solids – Minimal Liquids	General[1]	Attachment 3-5
Solids – Significant Liquids	General[1]	Attachment 3-6

[1]General includes fuel blending, neutralization, storage, filtration, drying, etc.

3.2.3 Selecting Sampling Procedures

Many factors must be considered in selecting the appropriate sampling procedures for the different types of materials managed at the Chicago Recycle Center. These factors include the type of material to be sampled, the representativeness of the sample method, whether the sample is retained in its original form and composition, and does the sampling method prevent contamination or changes in the concentration of the parameters to be analyzed. Safety-Kleen has selected specific sampling procedures based on the above factors, which are identified in Table 3-2.

Table 3-2

Sampling Methods and Equipment

Material	Method	Equipment
Extremely viscous liquid	ASTM D 140-70 or ASTM E 300	Tube sampler, thief, or Coliwasa
Crushed or powdered material	ASTM D 346-75 or ASTM E 300	Tube sampler, trier, scoop, or shovel
Soil	ASTM D 420-69 or ASTM E 300	Tube sampler, trier, auger, scoop, or shovel
Soil-like material	ASTM D 1452-65 or ASTM E 300	Tube sampler, trier, auger, scoop, or shovel
Fly ash-like material	ASTM D 2234-76 or ASTM E 300	Tube sampler, trier, auger, scoop, or shovel
Containerized liquids	SW-846 or ASTM E 300	Coliwasa, tube sampler, weighted bottle, bomb, or tank sampling port

In certain instances, it is necessary to obtain samples using methods other than those identified in Table 3-2. In these instances, the facility will either utilize other published sampling methods or sampling methods that ensure a representative sample of the material is obtained.

3.2.3.1 Sample Preservation and Storage

Samples are preserved and stored using the appropriate containers and preservation methods specified in SW-846 or other approved methods. The sample containers are selected based on the parameter to be analyzed (for example, certain analyses require glass containers, while others require polyethylene containers). In addition, special conditions may exist that require different types of glass containers (e.g., amber) or certain lids (e.g., teflon lined to prevent contamination, volatilization). Safety-Kleen will select the appropriate container based on the analytical parameters and nature of the waste to be sampled.

The appropriate sample preservation techniques identified for each parameter will be employed to ensure that the integrity of the waste remains intact while the samples are in transport to the laboratory and/or while temporarily being stored prior to or after shipment. In most cases, either no

preservation method is required, or the method is to cool the sample to 4° C. In some cases, the samples must be pH adjusted or have specified preservative added. Safety-Kleen or contract laboratory/sampling personnel will preserve the samples based on the analytical parameters selected.

Materials that are sampled at the facility that will undergo analysis at the facility may not require sample preservation (e.g., receipt control samples, samples that will be analyzed quickly or only for operational information, etc.). The facility will make a case-by-case determination on how and when to preserve these samples, as necessary.

3.2.3.2 Sampling QA/QC Procedures

Sampling equipment is decontaminated before and between sampling events or is disposed to minimize the possibility of cross contamination. The equipment is decontaminated using a method appropriate to the type of material. For example, thiefs and triers are generally washed with soap and water to remove solids. Equipment blanks may also be sent for analysis. New sampling equipment which is known to be clean will not be decontaminated prior to use.

Samples of volatile materials will be directly placed into sample bottles, tightly sealed, and stored according to the appropriate preservation method specified. The material will be sampled in a manner to minimize changes to the material composition. Air space will be minimized in the sampling bottle.

Sampling and inspections are performed by specially trained personnel. The lab manager, or their trained representative, trains the sampling/inspection personnel and observes their techniques periodically to ensure a thorough understanding of sample collection, inspection, labeling, sample traceability, etc. is demonstrated.

The facility follows sample traceability as a minimum standard for all internal and external sampling and analysis. This involves the documentation of procedures so that a set of data can be

traced back through the analyst, to the person performing the sampling, and then to the waste itself. All samples receive a unique sample identification number which facilitates this process.

3.2.3.3 Health and Safety Protocols

Proper health and safety precautions are to be maintained during any sampling activities. Sampling personnel are trained in the appropriate safety procedures to be used during sampling including PPE, monitoring, and site-specific situations.

3.2.4 Selecting a Laboratory and Testing and Analytical Parameters

Safety-Kleen may use internal and outside laboratories to perform analyses (when required) on waste streams. Several factors are considered when selecting an outside laboratory. These factors include a comprehensive QA/QC program, the technical analytical expertise, and the effectiveness of the information management systems. Laboratory facilities shall be formally evaluated prior to use and on a periodic basis.

3.2.4.1 Selecting a Laboratory

Certain criteria must be met for both internal and external laboratories, including a QA/QC program, chain-of-custody protocols, and standard operating procedures.

3.2.4.1.1 Internal Laboratories

Safety-Kleen laboratories have a QA/QC program in place to ensure that the analytical methods will generate data that is technically sound, statistically valid, and can be documented. The laboratories have established chain-of-custody protocols and standard operating procedures in place to ensure that established analytical parameter holding times are met. The laboratories also use quantitative methods of assessing QA/QC including, but not limited to, method blanks, duplicates, matrix spikes and surrogate spikes.

The Safety-Kleen laboratories are proficient in using established EPA analytical methods for hazardous waste determinations. The laboratories are able to achieve detection limits at sufficiently low levels to meet prescribed regulatory thresholds for parameters tested, when required.

The laboratories' information management systems ensure the availability of all relevant data generated including chain-of-custody records, accuracy and precision information, and analytical results. The laboratories' reports are clear and concise and include the applicable data validation information, where applicable.

3.2.4.1.2 External Laboratories

The selected laboratory must have a QA/QC program in place to ensure that the analytical methods will generate data that is technically sound, statistically valid, and can be documented. The laboratory must have established chain-of-custody protocols and standard operating procedures in place to ensure that established analytical parameter holding times are met. The laboratory must also use quantitative methods of assessing QA/QC including, but not limited to, method blanks, duplicates, matrix spikes and surrogate spikes.

The selected laboratory must be proficient in using established EPA analytical methods for hazardous waste determinations. The laboratory must be able to achieve detection limits at sufficiently low levels to meet prescribed regulatory thresholds for parameters tested, when required.

The selected laboratory's information management systems must ensure the availability of all relevant data generated including chain-of-custody records, accuracy and precision information, and analytical results. The selected laboratory's reports must be clear and concise and include the applicable data validation information.

3.2.4.2 Testing and Analytical Parameters

Attachment 3-7 provides a list of analytical parameters and the applicable analytical method which will be used by Safety-Kleen. In most cases, the methods to be used will be EPA SW-846, ASTM, or other approved methods. In cases where neither SW-846 or other established methods are available, the facility has prepared facility specific procedures. The source of these methods is identified as "facility" in Attachment 3-7. Procedures for these methods are provided in Attachment 3-7. Methods other than those specified in Attachment 3-7 may be used based on the sample type and any matrix interferences.

3.2.5 Selecting Waste Re-Evaluation Frequencies

Waste analyses are repeated as often as necessary to ensure that the data on the waste stream is accurate and up to date. At a minimum, analyses are repeated when the process or operation generating the waste has changed enough to: (1) cause a significant change in the chemical or physical properties of the waste; or (2) cause a manifest discrepancy that can not be resolved.

Each of the waste streams generated at the Chicago Recycle Center are re-evaluated individually on an as-needed basis. Most of the generated waste streams are re-evaluated using generator knowledge through a review of the process generating the waste or by reviewing previous analytical results.

Wastes received from offsite are re-analyzed and re-evaluated at least once every five years. This analysis may be performed at an internal or external laboratory.

3.2.6 Special Procedural Requirements

This section provides discussion on several special procedural requirements applicable to the facility. These include receiving wastes from offsite, procedures for ignitable, reactive and incompatible wastes, Land Disposal Restriction requirements, 40 CFR 264 Subpart BB applicability, and 40 CFR 264 Subpart CC applicability.

3.2.6.1 Receiving Wastes from Off-Site Generators

Before Safety-Kleen can approve a waste for storage and/or treatment at the Chicago Recycle Center, detailed physical and chemical information about the waste must be submitted to the facility by the generator. For each waste stream that is a candidate for management at the facility, the facility needs the following:

- Material Profile Sheet (or a functionally equivalent waste stream data sheet);
- A detailed physical and chemical analysis of the waste as appropriate; and
- Other pertinent information such as Material Safety Data Sheets and manufacturer's specifications on out-dated materials, etc.

The Material Profile Sheet (see example provided in Attachment 3-8) determines the identity and acceptability of a particular waste stream pursuant to facility permit conditions and operating capabilities prior to any shipment of the waste to the facility. The Material Profile Sheet must contain information about the generator, physical and chemical characteristics of the waste, process generating the waste, applicable waste codes, DOT information, and generator certification that the information provided is accurate.

3.2.6.1.1 Waste Stream Profile Process

Safety-Kleen has developed a waste stream profile process to ensure that receipt of a waste at the facility is in compliance with all permits, company policy, and applicable federal, state, and local regulations. The Chicago Recycle Center follows this waste stream profile process as detailed in the flow chart provided as Attachment 3-9.

The first step in this process is the submittal of the information identified above (Material Profile Sheet, detailed physical and chemical analysis, MSDS, etc.) to the facility by the generator. The facility will determine if the information is sufficient to approve the profile. If not, additional information will be obtained from the generator. If necessary, a sample will be obtained and analyzed for a subset of the parameters provided in Attachment 3-1 through 3-6 necessary to make

this determination. Once the facility determines the information is sufficient to approve the profile, it is evaluated for acceptance at the facility. The evaluation consists of the following:

- The capabilities of existing treatment and storage facilities are reviewed to ensure that the waste material can be satisfactorily managed by the facility or an off-site facility. For example, waste codes are compared to the facility's operating permit, current backlogs are assessed, appropriate treatment standards are identified and reviewed, etc.

- The physical and chemical characteristics of the waste material are reviewed to ensure that the material is compatible with other wastes which are present, and with the treatment facility's materials of construction. For example, pH is an important factor when storing waste in metal tanks or containers. Also, depending upon the structural integrity of the tank, specific gravity can be another important consideration.

- The waste's physical characteristics and chemical composition, generator identified waste codes, and description of the process generating the waste are reviewed to verify that: all applicable waste codes are properly identified; confirm that the waste analysis performed was appropriate for the material, waste codes assigned, process generating the waste, and tentative method of treatment or disposal; and ensure that the waste material does not contain any specific waste codes or compounds which are prohibited and/or inappropriate for treatment and storage at the Chicago Recycle Center.

- Applicable land disposal restriction standards are identified and reviewed. This is performed to ensure that the facility is able to meet the appropriate treatment standard(s), where appropriate.

While the waste approval process may involve several departments such as the laboratory, sales, and operations, during the collection and generation of the aforementioned information, the laboratory has responsibility for the final review and approval or rejection of the waste.

Once the information which is necessary to make a profile has been collected, the facility assigns an unique identification number to each waste stream. All information which is applicable to the approval, rejection, and handling of the waste is managed under that number. Once a decision has been made regarding the approval or rejection of a waste stream, it is noted in the customer file and signed and dated by the person making the final decision. Any applicable comments regarding the waste, such as the reason for its rejection, are also included in the file.

3.2.6.1.2 Approved Waste Streams

Once a waste stream has been approved by the Chicago Recycle Center, the generator is contacted and the material is scheduled for initial shipment to the facility. Upon receipt at the Chicago Recycle Center for the first time, a representative sample is obtained from the shipment. This sample is then analyzed for the appropriate parameters identified in Attachments 3-1 through 3-6. The analytical results are then compared to the approved profile to ensure this information is accurate. If the analytical results conflict with the approved profile, the generator will be contacted and the discrepancy will either be resolved and the profile amended, or the material will be rejected back to the generator. If the analytical results verify the approved profile can be managed at the facility, the shipment is accepted and the analytical results are added to the customer file. Additional shipments of material are then subject to the acceptance procedures identified in Section 3.2.6.1.3.

3.2.6.1.3 Acceptance Procedures

Incoming load verification begins upon arrival of the waste at the facility. Upon waste receipt, a visual inspection of the load is performed. A "fingerprint" sampling and analysis is then performed in accordance with the procedures described in this section to verify that a particular shipment of material is represented by the applicable material profile sheet.

In accordance with 40 CFR 264.72, manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest, and the quantity and type of hazardous waste the facility receives. Significant discrepancies in quantity are: (1) for bulk waste, variations greater

then 10 percent in weight, and (2) for batch waste, any variation in piece count. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis.

Upon discovering a significant discrepancy, the facility will attempt to reconcile the discrepancy with the waste generator or transporter in accordance with 40 CFR 264.72. If the discrepancy is not resolved within 15 days after receiving the waste, the facility will immediately submit to IEPA a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest in question.

3.2.6.1.3.1 Wastes Received for Storage and Processing

These wastes might fall into such categories as: toll recycling, (customer provides the waste and the facility recycles the waste to their specifications); solvent recycling or recovery (the facility combines like solvent wastes and recovers these solvents for resale as specification recycled product); or fuels blending (non-recyclable flammable, combustible, and halogenated solvents are blended to specification, typically for energy recovery as kiln fuel for the cement industry).

At a minimum, samples from incoming loads are subjected to the fingerprint analyses in Table 3-3 to verify that the shipment matches the waste profile. These tests are a subset of the original profile. Tolerance limits for these parameters have been established in order to aid in the conformance evaluation. Table 3-4 contains the degree of agreement with the initial analyses for the parameters in Table 3-3.

Should a particular value (or values) exceed the specified tolerance limits, the waste is considered to be nonconforming and requires further investigation and/or analyses to resolve the discrepancy. The following events occur:

1. The sampling and analytical data from the samples are reviewed to verify that they are accurate.

2. If accurate, additional analyses may be performed and the data reviewed for its degree of agreement with the original waste profile.

3. Additional analyses beyond the original profile may be necessary in order to resolve discrepancies or to re-profile the waste.

4. After re-profiling, the data is used to update the waste profile.

5. The new waste profile is evaluated for its acceptability at the facility in accordance with Section 3.2.6.1.1.

6. The generator is contacted by the company. In cases where the waste is amenable to storage or treatment at the facility, the discrepancy is determined to be resolved between the company and the generator. Waste which is not amenable to acceptance by the facility is rejected as being non-conforming.

Table 3-3

Fingerprint Analyses

Parameter	Rationale for Selection
Physical Description	Used to determine the general characteristics of the waste stream. This facilitates subjective comparison of the sample waste with prior descriptions. Facility personnel check for color, general form, layering, and consistency.
pH	Required on all water-bearing liquid and semi-solid waste streams to determine the corrosivity of the waste. The apparent pH of non-aqueous wastes will also be performed.
VOC Analysis	Gas chromatography is used to determine the composition of the material.
Karl Fisher	Determines the amount of water in a particular waste stream.
PCB[1]	Applies to used oil and fuels related materials only.

[1]PCBs will only be analyzed for materials containing oils and/or paints.

Table 3-4

Tolerance Limits

Parameter	Method	Tolerance Limits
Physical Description	Facility	Must be correct, no tolerance other than color
pH	SW-846 9040 SW-846 9041 SW-846 9045	pH <2..... pH <2 pH 2 – 12.5..... pH 2 – 12.5 pH >12.5..... pH >12.5
VOC Analysis	Facility	Laboratory judgment depending upon the constituents present and their respective levels; deviations will be investigated.
Karl Fisher	ASTM	Used as a general indicator of the degree of contamination and the facility's ability to recover the solvent; no specific tolerance limits.
PCB[1]	SW-846	< 50 ppm present

[1]PCBs will only be analyzed for materials containing oils and/or paints.

3.2.6.1.3.2 Wastes Received for Storage Only

The facility may receive wastes in containers that are stored for a limited period of time prior to trans-shipment to other TSD facilities for processing. As described earlier, the facility profiles each waste stream prior to receiving the wastes. Wastes designated for trans-shipment are stored in the original containers and the containers are not opened until the wastes are received at the final processing facility.

The facility has adequate knowledge of the waste characteristics through the completion of a material profile for the waste stream. Therefore, additional receipt analysis is not necessary for wastes that are to be stored for a limited period of time and not processed (treated and/or commingled with other wastes). The material profile is used for the safe and proper management of the wastes while stored at the facility. The knowledge of the waste characteristics are utilized to

check waste manifests and container markings upon receipt and upon trans-shipment to ensure that the descriptions match the waste characteristics.

3.2.6.2 Procedures for Ignitable, Reactive, and Incompatible Wastes

Safety-Kleen identifies ignitable, reactive, and incompatible wastes either through the use of generator knowledge or analytical testing. Safety-Kleen does not accept reactive wastes. The Chicago Recycle Center takes the necessary precautions to prevent the accidental ignition or reaction of ignitable wastes (see Section 6.0).

In addition, incompatible wastes are identified, handled, and stored so as not to:

- generate extreme heat or pressure, fire or explosion, or violent reaction;
- produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- damage the structural integrity of the device or facility containing the waste; or
- through other like means threaten human health or the environment.

The facility utilizes DOT compatibility (see Attachment 4-3) for the purposes of identifying incompatible wastes. When two or more waste streams are to be mixed or stored near each other, a compatibility assessment will be performed prior to mixing. This assessment may include using knowledge of the materials, incompatibility tables (i.e., DOT compatibility), chemical reference documents, and/or laboratory analysis. The laboratory analysis is generally performed by mixing small aliquots of the materials in a laboratory hood and monitoring for the evolution of fumes, gases or vapors, or a temperature rise.

3.2.6.3 Land Disposal Restrictions

In accordance with the Land Disposal Restrictions (LDR) contained in 40 CFR Part 268, waste shipped offsite may need to be analyzed to determine whether the waste meets the applicable LDR treatment standards. If, based on process knowledge, Safety-Kleen knows that the waste does not meet the applicable treatment standards, no testing is necessary. If applicable, Safety-Kleen will conduct testing or use process knowledge tested for the applicable parameters in 40 CFR Part 268 to certify that a waste meets the applicable LDR treatment standards.

Waste that is sent offsite to a treatment facility that exceeds applicable LDR treatment standards will be supplied with LDR notifications with the shipment of waste that includes the information required in 40 CFR Part 268. Wastes determined through analysis to meet treatment standards as specified in 40 CFR Part 268 will be land disposed without further treatment. LDR certifications will be supplied with the shipment of waste that includes the information required in 40 CFR Part 268.

Notifications are required to be sent to Safety-Kleen for all wastes received from offsite requiring treatment. All notifications, certifications, and associated analytical results will be retained by Safety-Kleen as required by 40 CFR 268.7 and 40 CFR 264.73.

3.2.6.4 Subpart BB

In accordance with the requirements of 40 CFR 265 Subpart BB, the Waste Analysis Plan is to contain determinations on the applicability of the 40 CFR 265 Subpart BB requirements. The Subpart BB regulations are applicable to equipment that contains or contacts hazardous wastes with organic concentrations of at least ten (10) percent by weight.

The Subpart BB regulations further define equipment as being in light liquid service, gas/vapor service, and heavy liquid service. These categories are defined as follows:

- Light Liquid Service - Vapor pressure of one or more components in the waste stream is greater than 0.3 kilopascals (kPa) at 20°C, the total concentration of these pure components is equal to or greater than 20 percent, and the stream is liquid at operating conditions.

- Gas/Vapor Service - The waste stream is in the gaseous state at operating conditions.

- Heavy Liquid Service - Any other waste streams that are not in either gas/vapor service or in light liquid service.

Safety-Kleen has identified all the equipment that contacts organic wastes and has determined that all wastes regulated under the Subpart BB requirements meet the definition of "light liquid service" (see Section 13.0). The facility will determine any additional testing requirements as needed to demonstrate where Subpart BB is not applicable.

3.2.6.5 Subpart CC

The 40 CFR 265 Subpart CC regulations are applicable to certain tanks and containers that contain hazardous wastes with volatile organic concentrations greater than 500 part per million by weight. Safety-Kleen determined the applicability of the Subpart CC regulations to the tanks and containers at the facility assuming that all tanks and containers used to manage organics contained greater than 500 parts per million by weight of volatile organics. Where necessary, any testing required to determine the volatile organic concentration of a hazardous waste will be conducted using EPA approved methods (such as Method 25D). Any determination of vapor pressure required will be conducted using EPA approved methods.

ATTACHMENT 3-1

ANALYTICAL PARAMETERS

LIQUIDS – SINGLE PHASE/RECOVERABLE

ANALYTICAL PARAMETERS THAT MAY BE CONDUCTED FOR:

LIQUIDS – SINGLE PHASE/RECOVERABLE

For the sample as a whole:

1) Visual;

2) Specific Gravity;

3) pH;

4) Neutralization (acidity/alkalinity) (if needed, based on pH);

5) Suitability for recovery:

   Evaporation - Nonvolatile Residue
   Description of the bottoms
   Water by Karl Fisher titration

6) Flashpoint;

7) GC/FID (VOCs)

8) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results); and

9) Composite PCB analysis of the bottoms[1].

[1]PCBs will only be analyzed for materials containing oils and/or paints.

ATTACHMENT 3-2

ANALYTICAL PARAMETERS

LIQUID –MULTIPHASE/RECOVERABLE

ANALYTICAL PARAMETERS THAT MAY BE CONDUCTED FOR:

LIQUIDS – MULTIPHASE/RECOVERABLE

For the sample as a whole:

1) Visual;

2) Phase ratio estimation;

For each phase:

3) Specific Gravity;

For the aqueous phase:

4) pH;

5) Neutralization (acidity/alkalinity) (if needed, based on pH);

6) GC/FID (VOCs) after filtration or centrifugation;

7) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results);

For the organic phase:

8) Suitability for recovery:

   Evaporation - Nonvolatile Residue
   Description of the bottoms
   Water by Karl Fisher titration;

9) GC/FID (VOCs);

10) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results);

10) Composite PCB analysis of the bottoms[1]; and

11) Flashpoint.

[1]PCBs will only be analyzed for materials containing oils and/or paints.

ATTACHMENT 3-3

ANALYTICAL PARAMETERS

LIQUIDS – SINGLE PHASE/GENERAL

ANALYTICAL PARAMETERS THAT MAY BE CONDUCTED FOR:

LIQUIDS – SINGLE PHASE/GENERAL

For the sample as a whole:

1) Visual;

2) Specific Gravity;

3) pH;

4) Neutralization (acidity/alkalinity) (if needed, based on pH);

5) Nonvolatile residue including a description of the residue;

6) Water content by Karl Fisher or by NVR difference;

7) GC/FID (VOCs);

8) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results);

9) PCB analysis of a composite with other waste streams[1];

10) Flashpoint;

11) Bomb calorimeter – Btu and ash content;

12) Titration of total halogens; and

13) Metals (if necessary based upon the ash content, and the monthly volume of the waste stream).

[1]PCBs will only be analyzed for materials containing oils and/or paints.

ATTACHMENT 3-4

ANALYTICAL PARAMETERS

LIQUID – MULTIPHASE/GENERAL

ANALYTICAL PARAMETERS THAT MAY BE CONDUCTED FOR:

LIQUIDS – MULTIPHASE/GENERAL

For the sample as a whole:

1) Visual;

2) Phase ratio estimation;

For each phase:

3) Specific Gravity;

4) Nonvolatile residue including a description of the residue;

5) Water content by Karl Fisher;

6) Composite PCB analysis[1];

7) Flashpoint;

8) Bomb calorimeter – Btu and ash content;

9) Titration of total halogens;

10) Metals (if necessary based on the ash content, and the monthly volume of the waste stream);

For the aqueous phase:

11) pH;

12) Neutralization (acidity/alkalinity) (if needed, based on pH);

13) GC/FID (VOCs);

14) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results);

For the organic phase:

15) GC/FID (VOCs);

16) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results); and

17) Composite PCB analysis of the bottoms[1].

[1]PCBs will only be analyzed for materials containing oils and/or paints.

ATTACHMENT 3-5

ANALYTICAL PARAMETERS

SOLID – MINIMAL LIQUIDS/GENERAL

ANALYTICAL PARAMETERS THAT MAY BE CONDUCTED FOR:

SOLIDS – SINGLE PHASE/GENERAL

For the sample as a whole:

1) Visual;

2) Specific Gravity;

3) pH;

4) Neutralization (acidity/alkalinity) (if needed, based on pH);

5) Nonvolatile residue including a description of the residue;

6) Water content by Karl Fisher or by NVR difference;

7) GC/FID (VOCs);

8) GC/Mass Spectrometry (VOCs) (If needed – Based upon GC/FID results);

9) PCB analysis of a composite[1];

10) Metals;

11) Flashpoint;

12) Bomb calorimeter – Btu and ash content; and

13) Titration of total halogens.

[1]PCBs will only be analyzed for materials containing oils and/or paints.

ATTACHMENT 3-6

ANALYTICAL PARAMETERS

SOLID – SIGNIFICANT LIQUIDS/GENERAL

ANALYTICAL PARAMETERS THAT MAY BE CONDUCTED FOR:

SOLIDS – SIGNIFICANT AMOUNT OF LIQUIDS/GENERAL

For the sample as a whole:

1) Visual; and

2) Phase ratio estimation.

For liquid phase(s), follow the procedures listed in:

"Liquids – Single Phase/General"

or

"Liquids – Multiphase/General"

For the solid phase, follow the procedures listed in:

"Solids – Minimal Liquids/General".

ATTACHMENT 3-7

ANALYTICAL PARAMETERS AND METHODS

ANALYTICAL PARAMETERS AND METHODS

Method Name	Method
Acidity/Alkalinity	Facility – 9910
BTU	Facility – 9905
Chlorides (Titration)	Facility – 9807
Compatibility	Facility – 9926
Flashpoint	Facility – 9402
NVR (nonvolatile residue)	Facility – 9902
PCBs	Facility – 9202
pH	Facility – 9906
Phase	Facility – 9912
Specific Gravity	Facility – 9903
VOCs	Facility – 9212
Water	Facility – 9801
Metals - Arsenic	SW-846 7060
Metals – Barium	SW-846 7080
Metals – Cadmium	SW-846 7130
Metals – Chromium	SW-846 7190
Metals - Lead	SW-846 7420
Metals – Mercury	SW-846 7470
Metals - Selenium	SW-846 7740
Metals - Silver	SW-846 7760

ATTACHMENT 3-8

MATERIAL PROFILE

ATTACHMENT 3-9

WASTE STREAM PROFILE PROCESS

safety-kleen.

Laboratory Training Record

Chicago Recycle Center

Laboratory Operations Training

The following individual has received Laboratory Operations Training and fully understands all aspects of the Waste Analysis Plan(WAP)

Name: MATILDA S. McFARLAND Signature : [illegible]

Date : 08/02/07 Trainer: Gary Malenski

safety-kleen.

Laboratory Training Record

Chicago Recycle Center

Laboratory Operations Training

The following individual has received Laboratory Operations Training and fully understands all aspects of the Waste Analysis Plan(WAP)

Name: TANEYA FORTSON-CIFCI Signature: [signature]

Date: 09-06-07 Trainer: [signature]

Chikaming Township Police Department -- (269) 469-3245
13535 Red Arrow Highway, PO Box 258, Harbert MI 49115

Incident No: **11-001157**
Status: **Closed**

Date Reported: **Fri 07/22/2011 00:48** Occurred Between: **Thu 07/21/2011 19:34** and **Fri 07/22/2011 03:00**

Dispatch Time: Arrival Time: Clear Time:

Officers: **KNOLL, GEORGE** **STORMONT, JAMES** Detective:

Classification: **HEALTH AND SAFETY -- (55000)**

Location: **6100 SAWYER ROAD,SAWYER (SAWYER TRAVEL CENTER)** Section / Nbh: /

Description: **Tanker leaking chemical** Entered: **KNOLL**

Driver: (55000 HEALTH AND SAFETY)

CALVANK, DARRYL, H Born: **03/23/1965**
5903 PETROLIA LINE, RR1 Phone: **(517)241-0506**
PETROLIA, ON
Ops: **C03301564650323 / ON**
Race: **White** Sex: **Male**

Vehicles:

2009 VOLVO TRACTOR Tag: **6057PE / ON** Unit: **1**
Registered To: **HAROLD MARCUS LIMITED** VIN: **4V4NCAEJ69N275119**
15124 LONGWOODS RD
BOTHWELL, ON N0P 1C0
Status: **DAMAGED**

INITIAL NARRATIVE **Reporting Officer: KNOLL, GEORGE** **07/22/11**

R/O called to respond to the lot of the T.A. after a tanker driver called to report a chemical leaking from the bottom of the tanker. He provided dispatch with the placard number and advised it was orange . R/O arrived and spoke with the driver and he produced his paperwork and it showed the tank hauling Methyl Ethyl Keytone. He said he had 4600 gallons and it looked as a gallon or so had leaked to the ground. R/O met with Tpr. Jim Janes and he used his I-phone to pull up the hazardous material information and the appropriate perimeter. R/O and others worked with UIC Irv Hischke and we set up a perimeter and eventually shut down Sawyer Road and the E/B exit ramp. BCSD Hazmat was contacted to respond. The driver Daryl Calvank, driving for Harold Marcus Limited Trucking was trying to contact his company. Dozens and Dozens of semi's were removed from the immediate area surrounding the tanker and one Chikaming Firetruck was station approximately 175 ft to the southeast to prevent any other semi's trying to exit through the back lot. At this R/O's direction Sawyer Road between the E/B and W/B ramps was shut down to all incoming traffic and the W/B land was left open as an exit route for vehicles, semi trucks were routed to the South lot of the T.A. and then north into the passenger vehicle lot around the gas pumps and out through the passenger vehicle entrance and exited to the west the farther possible exit point to the west of the tank. Eventually the tanker did explode-no one was injured. More details will be added later.

The initial paperwork from the driver indicated the substance to be Methyl Ethyl Keytone, which is referred to as MET, the paperwork and the Hazardous Material Placard would be a highly flammable chemical.Information from the driver indicated he did not believe the chemical within the aluminum tanker was what the shipping papers said, and he was attempting to vent off vapors to prevent the rise in pressure inside the tank. He advised the chimcal in the truck was eating through the aluminum tanker.

The driver of the tanker-truck did a valiant effort at attempting to vent off the excessive pressure building inside the tanker but eventually the leaking became heavier out of the bottom of the trailer and then became to pour out of the bottom of the compromised tanker and around 21:45 the tank exploded- sending a cloud of mist and debris up into and around the containment area. The tanker itself was blown apart and pieces were observed flying as

high as a hundred yards up into the air.

A check with all emergency personnel and the minimal staffing inside the store indicated no one was seriously injured by the blast.

What was known at the time of the explosion was the tanker was transporting some 4600 gallons of an unknown chemical when the driver noticed the tanker had started to leak and he exited the freeway into the back lot of the truck stop.

The Chikaming Patrol Car was placed at an angle facing the tanker to block the ramp, signage was put up at the top of the ramp advising the ramp was closed and large cones also, the patrol was placed at the bottom of the ramp, incase some one exited anyway. Tpr. Jans used his patrol car to block west bound traffic on Sawyer Road just east of the E/B exit ramp. Bridgman 4011 was directed to use his patrol car to block Sawyer Road east bound traffic back west at the W/B exit ramp. Per this R/O's orders, all traffic with the exception of emergency workers, was shut down on Sawyer Rd. between the ramps, the W/B lane was left open as an egress route so vehicles could exit W/B from the Sawyer Travel Center.

HAZARDOUS MATERIAL IDENTIFIED: The next afternoon around 16:00 R/O made contact with Fire Chief Davidson along Sawyer Road and he advised the chemical had been identified as Sodium Hydroxide, a corrisive material used in several house hold cleaning products

The MVC had been strategically placed facing the tanker and to capture the escaping vapors and dripping chemical in the back lot of the T.A. The video will be logged and secured in evidence.

(Supplement 1) **Reporting Officer: KNOLL, GEORGE** **07/27/11**

The following day R/O checked with Fire Chief Davidson and learned that test were indicating the chemical was some type of Hydrogen product. R/O learned that either the container was wither loaded with the wrong chemical or the shipping paperwork had gotten mixed up, causing the wrong type of tanker to be used to haul the actual chemical in the tanker. Some unspecified amount of the chemical did make it into a drain on Sawyer Road at the drain just west of the exit drive for trucks that have exited the Sawyer Truck Garage. Sand Berms were rapidly put into place to try to divert the chemical around the drain. The drain further west on Sawyer Road was also bermed with sand. The Sawyer Truck Stop was shut down sometime that morning after any remaining big rigs and employees were removed from the T.A. The company initially brought in clean up services Eagle Services out of Chesterton and Clean Harbor Environment out of Chicago. Prior to this R/O's departure around 04:15 that morning, personnel from the DNR environmental section also arrived. The Sawyer Road was closed along with the E/B ramp from minutes after the initial call till sometime late Sunday Night. The T.A. was reopened for business sometime after that. The following Wednesday the final clean-up of drains by the company hazardous response team was being completed.

ONLY ONE MINOR INJURY: Fireman Irv Hischke the fireman stationed at the south east corner at the back (east) parking lot is the only one who was injured slightly, he received a couple small burns on his face from droplets of the corrosive material as it fell from the sky after the tanker exploded.

(Supplement 2) **Reporting Officer: KNOLL, GEORGE** **08/16/11**

R/O talked to Chief Davidson in proceeding weeks after the explosion to compare notes. Several state and federal agencies are involved in this investigation. Mark Razny and investigator with U.S. DOT (847)294-8580 and William Ford a Detective Sgt. with the State of Michigan Department of Environmental Quality (269)567-3505 are involved in the investigation. This report is closed, tot these other agencies.

On 7/22/11 at approximately 5:33 PM I interviewed the truck drive, DARYL CALVANK, of Harold Marcus Trucking in reference to a BLEVE or a tanker he was pulling. I advised Mr. Calvank that I was a criminal investigator assigned to the DEQ and provided him with a business card. He advised that he has already spoken to a number of investigators including MSP Motor Carrier but wanted to cooperate. He provided a cell phone number of 947-517-6099.

I asked Calvank to tell me what type of tractor and trailer he was operating and he advised that he was driving a 2009 Volvo with Ontario registration 6057PE and pulling a 1986 Brennan tanker with Ontario with Ontario registration B17850. He further advised that he has been employed with Harold Marcus for the last six years. Harold Marcus is located in Bothwell, Ontario and their phone number is 800-265-9426.

I then requested Calvank explain how he came to be in possession of the trailer and what happened. Calvank stated that he brought an empty trailer (which had a previous load of calcium chloride and had not been cleaned) and arrived at Clean Harbours in Chicago at approximately 11:00 AM Central time. He checked in, pulled around to loading bay and dropped the trailer. He then went to the staging area and waited approximately 3 hours. When Clean Harbours notified him the load was ready to go, he hooked the trailer up, inspected the seals on the top and bottom and picked up his manifest and other paperwork. He then left eastbound to Corunna Ontario.

Calvank stated that he then pulled into Lake Station Indiana to stop for dinner and to check the pressure gauge. He advised it was a little high, but not unusual because of the heat of the day and sun so bled the pressure off and after eating continued eastbound.

He then advised that around 5:00 PM he pulled into the Sawyer truck stop to again check the pressure. He advised that he put the window down to assist him in backing up the trailer and he got a smell of product. He then parked and did a walk around and observed product dripping from the middle of the bottom of the tanker. He grabbed his catch basin and put it under the leak as well as some absorbent pads for what had already leaked on the parking lot. Calvank stated that he then called his dispatch and told them he had an active leak. He then utilized the vacuum on the trailer and was able to stop the product from leaking. He advised the vapors were getting stronger and so he went to the desk at the truck stop and told the manager he had a leak and they needed to cordon off the parking lot.

Calvank further advised that at 5:10 PM he ran back to the scene and started waking up drivers in the adjoining trucks and the manager came out and told him that she called the fire department and that Harold Marcus Trucking called Clean Harbours at about the same time. Calvank stated that the first responders arrived within 10 minutes. Calvank stated that he never left the area of the trailer after that. He stated that about 8:00 PM the trailer started leaking again in the same spot so he put on his respirator and went to check on the status of the vacuum. He found out it was not working and tried revving the engine to engage it again. He stated he got out and looked and now there was a steady stream of product coming out of the trailer. He stated that around 8:40 to 8:45 PM he went in and

decided to shut off the ignition to the tractor and he then heard a hiss and whistle and advised that usually indicates that you have a PSI of 32-35 and that the trailer exploded at about 9:15 PM.

Calvank advised that he believed that something was wrong upon his first view of the trailer leaking because it was dropping to the pavement and then splashing on the trailer and was reacting with the aluminum.

TABLE OF CONTENTS

Section		Page
1.0	Part A Permit Application	1-1
	1.1 Siting Certification	1-1
	1.2 Public Disclosure Exemption Claims and Trade Secret Claims	1-1
	1.3 Public Participation	1-2
2.0	Facility Description	2-1
	2.1 General Description	2-1
	2.2 Facility Operations	2-2
	2.3 Topographic Information	2-3
	2.4 General Map Information	2-4
	2.5 Seismic Standard Certification	2-4
	2.6 Floodplain Standard Certification	2-4
	2.7 Traffic Information	2-4
	2.8 Solid Waste Management Units	2-6
	2.9 Characterization of Solid Waste Management Units	2-7
	2.10 Releases from Solid Waste Management Units	2-7
	2.11 Groundwater Protection Standards	2-8
	2.12 Corrective Action	2-8
	2.13 Operating Record	2-10
3.0	Waste Characteristics	3-1
	3.1 General Chemical Information	3-1
	3.2 Waste Analysis Plan	3-2
4.0	Process Information	4-1
	4.1 Truck Stations	4-1
	4.2 Container Storage Area	4-5
	4.3 Tank Storage	4-14
	4.4 Processes	4-40
5.0	Contingency Plan	5-1
	5.1 Facility Description	5-2
	5.2 Emergency Coordinators	5-3
	5.3 Implementation of Contingency Plan	5-3
	5.4 Emergency Response Procedures	5-4
	5.5 Emergency Spill Control	5-8
	5.6 Fire Control Procedures	5-11
	5.7 Floods	5-13
	5.8 Evacuation Plan	5-13
	5.9 Emergency Equipment	5-14
	5.10 Recordkeeping and Reporting	5-14
	5.11 Preparedness and Hazard Communication	5-15

ILD 005450 697

5.12 Arrangements with Local Authorities 5-16
5.13 Evaluation of Potential Hazards Report 5-17

Section **Page**

6.0 Procedures to Prevent Hazards 6-1
6.1 Facility Security 6-1
6.2 General Facility Inspections 6-1
6.3 Preventive Procedures, Structures, and Equipment 6-8

7.0 Training Plan 7-1
7.1 Introduction 7-1
7.2 Outline of Training Plan 7-1
7.3 Implementation of the Training Plan 7-4

8.0 Closure Plan 8-1
8.1 Scope of Closure Plan 8-1
8.2 General Facility Information 8-1
8.3 Container Storage Area, Tanks, and Ancillary Equipment 8-2
8.4 Closure Requirements 8-4
8.5 Closure Activities 8-4
8.6 Closure Schedule 8-12
8.7 Closure Activity Schedules Notification 8-13
8.8 Certification of Closure 8-13
8.9 Closure Cost Estimate 8-14
8.10 Financial Assurance 8-14

9.0 Closure Cost Estimate 9-1

10.0 Financial Responsibility 10-1

11.0 Other Federal Laws 11-1
11.1 Other Environmental Laws 11-2

12.0 Subpart AA 12-1

13.0 Equipment Leaks (40 CFR 264 Subpart BB) 13-1
13.1 Equipment Leak Program 13-1
13.2 Equipment Leak Program Implementation 13-2
13.3 Equipment Leak Program Administration 13-2
13.4 Facility Equipment 13-7

14.0 Air Emission Standards for Tanks and Containers (40 CFR 264 Subpart CC) 14-1
14.1 Subpart CC Compliance Program 14-1
14.2 Subpart CC Compliance Program Implementation 14-2

14.3 Subpart CC Compliance Program Administration 14-2
14.4 Affected Equipment 14-6
14.5 Closed Vent Systems 14-10
14.6 Reporting 14-10

Section **Page**

15.0 Prior Conduct Certification 15-1

16.0 Exhibits 16-1

Table **Table Number**

Secondary Containment Volume Comparison 4-1
Tank Schedule – Tank Farm #1 and Container Storage Area #1 4-2
Tank Schedule – Tank Farm #2 4-3
Tank Schedule – Tank Farm #3 4-4
Tank Schedule – Tank Farm #4 4-5
Tank Schedule – Tank Farm #5 4-6
Tank Schedule – Proposed Tank Farm #6 4-7
Tank Schedule – Proposed Tank Farm #7 4-8
Tank Schedule – Proposed Tank Farm #8 4-9
Tank Schedule – Proposed Tank Farm #9 4-10
Summary of Process Equipment at the Chicago Recycle Center 4-11
List of Tank Farm Exhibits and Drawing Numbers 4-12
Emergency Coordinators/Contacts 5-1
Emergency Equipment 5-2
Inspection Schedule 13-1
Container Control Level Requirements 14-1

Attachment **Attachment Number**

Hazardous Waste Permit Application – Part A 1-1
Photographs of Facility 1-2
Facility Certification 1-3
Siting Certification 1-4
Facility Mailing List 1-5
Confirmation of Part B Permit Application Receipt by Repository 1-6
Example Public Notice Distributed to Mailing List 1-7
Publisher's Certification and Copy of Display Ad for Public Notice 1-8
Professional Engineer's Certification 1-9
Process Facility Manager Authorization to Sign for Safety Kleen Systems, Inc. 1-10
Solid Waste Management Units 2-1

Process Flow Diagram 2-2
Analytical Parameters - Liquids – Single Phase/Recoverable 3-1
Analytical Parameters - Liquids – Multiphase/Recoverable 3-2
Analytical Parameters - Liquids – Single Phase/General 3-3
Analytical Parameters - Liquids – Multiphase/General 3-4
Analytical Parameters - Solid – Minimum Liquids/General 3-5
Analytical Parameters - Solid – Significant Liquids/General 3-6
Analytical Parameters and Methods 3-7
Material Profile 3-8
Waste Stream Profile Process 3-9
Chemical Classes Managed at the Chicago Recycle Center by Functional Group 3-10
Physical Properties and Toxicity Information 3-11
Typical Waste Stream Profiles Managed by the Chicago Recycle Center 3-12
Personal Protective Equipment Selection Matrix 3-13
Secondary Containment Calculations for Container Storage Area #1& Tank Farms 4-1
Tank Assessment Report 4-2
DOT Compatibility Chart 4-3
Tank History 4-4
Secondary Containment Coating Information 4-5
Most Recent Internal Inspection Report 4-6
Thickness Test Summary Tables and Corrosion Rates 4-7
Tank Assessment Table for Tanks Leaking or Unfit for Use 4-8
Example Container Marking/Label 4-9
Secondary Containment Coating Certification for Tank Farm #4 4-10
25 Year/24 Hour Rainfall Event Information 4-11
Inspection Results of Tanks T-35A and T-35B 4-12
Storage Tanks – Minimum Allowable Thickness Calculations and Basis 4-13
Storage Tanks – Minimum Allowable Thickness Calculations P.E. Certification 4-14
Part A Permit Application 5-1
Incident Reporting Requirements Table 5-2
Coordination Agreement with Local Authorities 5-3
Evaluation of Potential Hazards Report 5-4
Products of Incomplete Combustion 5-5
Example Incident Report Form 5-6
Sample Daily Inspection Report Form 6-1
Sample Weekly Inspection Report Form 6-2
Sample Monthly Inspection Report Form 6-3
Sample Annual Inspection Report Form 6-4
Example Repair Log 6-5
Water for Fire Control Certification 6-6
Containment Coating Inspection (most recent 30 day period) 6-7
Personal Protective Equipment Selection Matrix 6-8
Example Job Description 7-1
List of Training Courses 7-2
Example List of Training Courses Assigned to Personnel 7-3
Example Training Completion Report 7-4

Credentials of Health and Safety Manager 7-5
Tank Closure Summary 8-1
Existing Container Storage Area Closure Costs 9-1
Proposed Container Storage Area Expansion Closure Costs 9-2
Existing Tank Closure Costs 9-3
Proposed Tank Closure Costs 9-4
Closure Cost Summary 9-5
Closure Costs - CostPro® Fact Sheet Facility Information and Contact 9-6
Closure Cost Supporting Documentation for Transportation 9-7
Financial Assurance/Liability Insurance Documentation 10-1
Title V Certification of Compliance 11-1
Metropolitan Water Reclamation District – Continued Compliance Report Cover 11-2
Certification of Subpart DD Compliance 12-1
Equipment Designation Log 13-1
Chemical Properties of Hazardous Waste 13-2
Example Inspection Form 13-3
Equipment Leak Detection Log 13-4
Example Identification Tag 13-5
Example (photocopy) of Subpart BB Tags 13-6
Subpart CC Example Inspection Sheet 14-1
Subpart CC Tank Summary 14-2
Prior Conduct Certification 15-1

Revised 2.1, 2.2, 2.4, 2.8, 2.10

2.0 FACILITY DESCRIPTION

This section provides a general description of the Safety-Kleen Systems, Inc. – Chicago Recycle Center. The section includes information on the location of the facility and description of the adjacent areas, including USGS, floodplain, survey plat, and topographic maps, existing and proposed facility site plans, and a legal description of the site land parcels. The section also contains a summary of facility operations, wastes accepted and wastes generated at the facility, traffic patterns, and other relevant information. Certification of compliance with floodplain and seismic standards applicable to hazardous waste facilities and a description of the facility operating record are also provided.

2.1 GENERAL DESCRIPTION

The Chicago Recycle Center is an organic chemicals reclamation and recycling facility that accepts organic chemicals and solvent wastes from Safety-Kleen toll customers and other industrial and commercial facilities and processes the materials to recover clean material for reuse or sale. The Chicago Recycle Center is located within the city limits of Chicago, Cook County, Illinois, between 42nd Street and 43rd Street approximately 1,000 feet east of Ashland Avenue. The address of the Chicago Recycle Center is:

Safety-Kleen Systems, Inc.
Chicago Recycle Center
1445 West 42nd Street
Chicago, Illinois 60609

A USGS map for the Englewood quadrangle shows the location of the Chicago Recycle Center and is included as Exhibit 1. The facility is situated on eight contiguous surveyed parcels comprising approximately 9.67 acres of land. A topographic map showing the Chicago Recycle Center and adjacent areas is included as Exhibit 2. Site plans of the existing and proposed facility are shown in

Exhibits 3 and 4, and a survey plat and legal description of the eight land parcels is included as Exhibit 5.

The site is zoned M-5 Industrial, the heaviest classification of industrial zoning in the city of Chicago. The site and surrounding area were formerly part of the Chicago Union Stockyards. Since the stockyards closed down, the area has reverted to commercial and light to heavy industrial uses. Commercial operations including small businesses and retail stores are located along Ashland Avenue and to the west of the site, and residential areas are located approximately one quarter mile south and west of the facility.

The present Chicago Recycle Center was constructed by Custom Organics, Inc., who operated the facility from 1969 until 1985, when Custom Organics, Inc., was acquired by Safety-Kleen. The Chicago Recycle Center and land parcels are owned by the Safety-Kleen Systems, Inc., headquartered in Plano, Texas. The address of Safety-Kleen Systems, Inc. headquarters is:

Safety-Kleen Systems, Inc.
5400 Legacy Drive
Cluster II, Building 3
Plano, TX 75024

2.2 FACILITY OPERATIONS

The following provides an overview of the facility operations by identifying the types of industries served by the facility, and a description of the wastes managed by the facility. Process flow diagrams are provided as Attachment 2-2 that identify units used to manage waste at the facility.

2.2.1 Types of Industry Served

The Chicago Recycle Center receives used solvents, solvent mixtures, and other solvent-containing liquid and solid wastes from Safety-Kleen service centers, other Safety-Kleen Recycle Centers, toll customers, and from industrial and commercial users. Wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. Industries served by the Chicago Recycle Center include chemical

manufacturers, pharmaceutical manufacturers, paint manufacturers, automobile, appliance, and electronics manufacturers, foundries, metal fabrication shops, maintenance shops, and aircraft manufacturers in Illinois and other states. Wastes are received in containers (e.g., drums and bulk). Used solvents, solvent mixtures, and other types of wastes are stored at the facility and may be subsequently treated by a combination of processes including neutralization, distillation, fractionation, liquid-liquid extraction, evaporation, mixing, stripping, blending, filtration, and drying. Recovered products are either returned to Safety-Kleen toll customers or marketed as recovered solvent.

2.2.2 Processes Generating Wastes

Solid and liquid wastes are generated by solvent recovery operations at the Chicago Recycle Center. Distillation and fractionation of waste solvents generate still bottoms, which are generally a heavy, oily waste with significant BTU value and which may contain up to 40 percent solids. These wastes are shipped off site to be processed into industrial furnace fuel. Solid wastes with no significant BTU value or which otherwise cannot be processed into fuel are shipped off site for incineration.

Liquid-liquid extraction, decanting, and drying of aqueous/solvent mixtures and distillation of some wastes with high water content generate wastewater that may contain organic chemicals or metals. Wastewater generated by the Chicago Recycle Center is presently piped to the sanitary sewer system under approvals from the Metropolitan Water Reclamation District of Greater Chicago.

2.3 TOPOGRAPHIC INFORMATION

The site of the Chicago Recycle Center and adjacent areas is primarily flat land, as shown on the USGS map provided in Exhibit 1 and topographic map provided in Exhibit 2. The topographic map was prepared in October, 1988, and shows the facility and adjacent areas and land uses within 1,000 feet of the facility property boundary at a scale of 1" to 100 feet.

2.13 OPERATING RECORD

The Chicago Recycle Center maintains a facility operating record in accordance with the requirements specified in 35 IAC 724.173. Types of information included in the facility operating record include:

- A description of the quantity of each hazardous waste received and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by 703, Appendix A;
- The location and quantity of each hazardous waste managed or disposed;
- The results of waste analyses and waste determinations.
- Any refusals of State or local authorities to coordinate emergency services with the facility;
- Reports and details of all incidents where the Contingency Plan was implemented;
- Records of inspections;
- Monitoring, testing, or analytical data and corrective action data, where required;
- For off-site facilities, notices to generators per 724.112(b);
- All closure and post-closure cost estimates;
- Annual certification, that the facility has a program in place to reduce the volume and toxicity of hazardous waste generated;
- Records of tank installation per 724.292 and tank repair per 724.296;
- Records of each shipment of hazardous waste placed in a land disposal unit under an extension of the effective dates of the LDRs; and
- Copy of the notice, certification, and/or demonstration required the Land Disposal Restriction regulations.

ATTACHMENT 2-1

SOLID WASTE MANAGEMENT UNITS

EXECUTIVE SUMMARY

Safety-Kleen Systems Chicago Recycle Center is a solvent recovery facility which recycles spent solvents and solvent mixtures for industrial and commercial customers. Process operations include distillation, liquid-liquid extraction, fractionation, and neutralization. Waste operations include the processing of hazardous and non-hazardous wastes.

Based on the information acquired during the Preliminary Review, a tentative list of SWMUs was complied. The SWMUs included a container storage area, tank farms, truck load/unload stations and process units which manage hazardous wastes. As a result of the Visual Site Inspection, some additional SWMUs were identified, and some tentative SWMUs were eliminated. In addition, spill information from Illinois EPA Land Division files as well as from Safety-Kleen's Part B permit application, increased the number of areas of concern.

ATTACHMENT 2-1

SOLID WASTE MANAGEMENT UNITS

Truck Stations

SWMU No. 1 Truck Station #1
SWMU No. 2 Truck Station #2
SWMU No. 3 Truck Station # 3

Container Storage Areas

SWMU No. 4 Container Storage Area #1

Storage Tanks

SWMU No. 5 Tank #199
SWMU Nos. 6-18 Tank Farm #1
SWMU Nos. 19-29 Tank Farm #2
SWMU Nos. 30-35 Tank Farm #3
SWMU Nos. 36-56 Tank Farm # 4
SWMU Nos. 57-83 Tank Farm #5
SWMU Nos. 84-85 Tanks PCT #3 and PCT#4

Process Units

SWMU No. 86 Distillation Unit L1
SWMU Nos. 87-89 Liquid-Liquid Extractor Units E1-E3
SWMU Nos. 90-95 Fractionation Units F1-F6
SWMU No. 96 Neutralization Unit

Container Accumulation Areas

SWMU Nos. 97-100 Satellite Accumulation Areas C1-C4

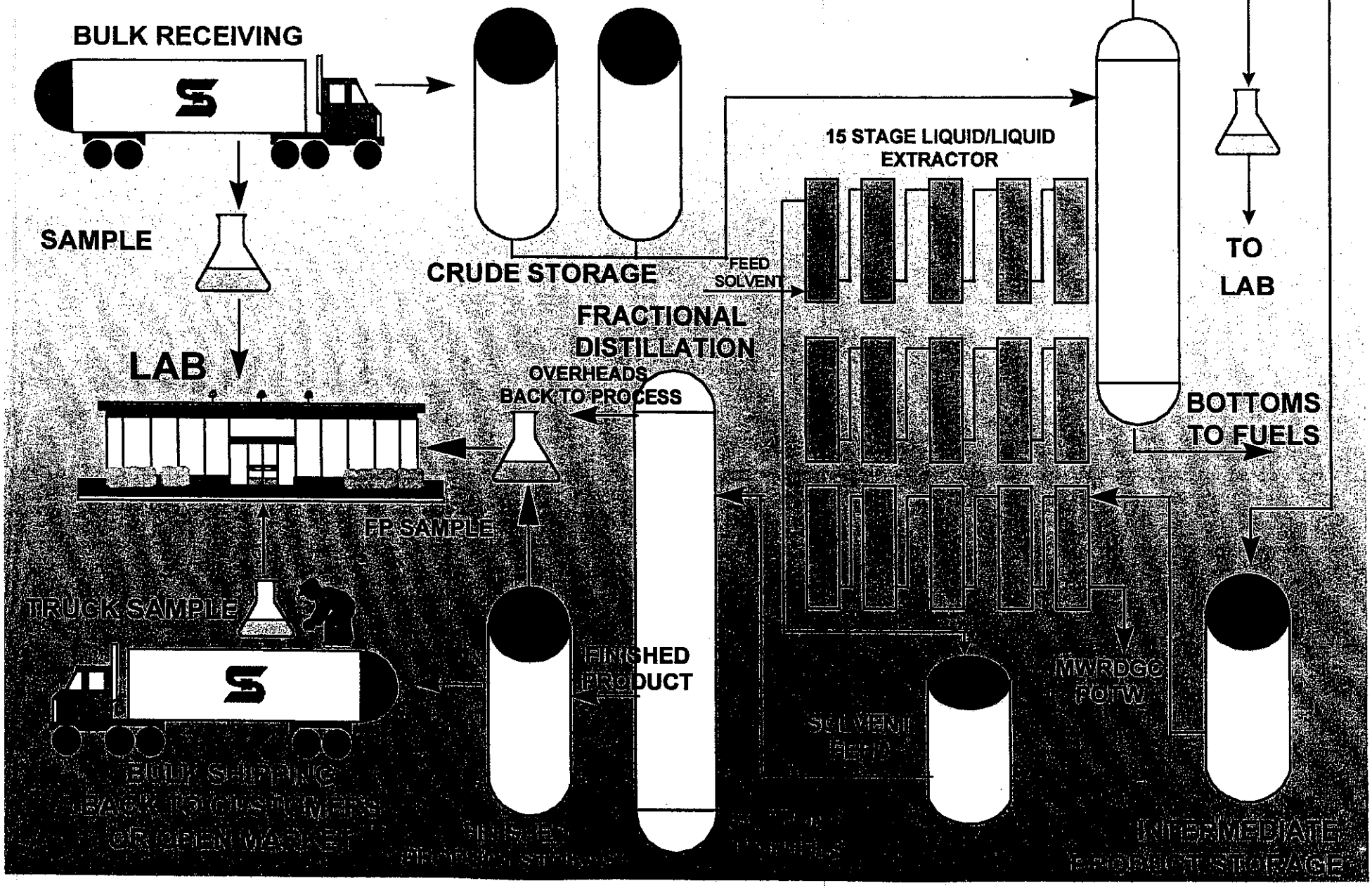
Miscellaneous

SWMU Nos. 101-102 Laboratory Waste Containers

ATTACHMENT 2-2

PROCESS FLOW DIAGRAMS

SAFETY-KLEEN CHICAGO R/C
PROCESS FLOW DIAG
INDUSTRIAL/TOLLING PROCESS



3.0 WASTE CHARACTERISTICS

This section describes the waste characteristics of the materials managed at the Safety-Kleen Systems, Inc. - Chicago Recycle Center. A Waste Analysis Plan is provided in this section that describes the activities conducted by the facility to ensure that these materials are properly managed at the facility.

3.1 GENERAL CHEMICAL INFORMATION

The facility receives a variety of waste types for storage and/or recycling, such as ignitable characteristic wastes (D001), corrosive characteristic wastes (D002), toxicity characteristic wastes (D004 – D011, D018, D019, D021 – D030, D032 – D043), wastes from non-specific sources (F-code wastes), wastes from specific sources (K-code wastes), and certain commercial chemical products, manufacturing intermediates, or off-specification commercial chemical products (U-code wastes). These wastes are generally solvents or organic in nature. The facility also receives solid wastes (non-hazardous) and wastes regulated as special wastes in the state of Illinois.

Examples of the types of waste the facility may accept include chlorinated solvents such as perchloroethylene used in dry cleaning, tetrahydrofuran from pharmaceutical manufacturers, and aliphatic and aromatic solvents such as mineral spirits.

The facility also functions as a tolling facility whereby a specific waste from a specific customer is segregated, reclaimed to the customer's specifications, and returned directly for reuse to the original generator.

The EPA hazardous waste numbers associated with the wastes the facility accepts are identified in the Part A Permit Application. The facility does not accept, for transfer or treatment, municipal garbage and refuse, infectious wastes, radioactive wastes, or reactive wastes.

The Chicago Recycle Center has reviewed the various organic and inorganic chemicals that may be accepted for management at the facility. These chemicals have been categorized into chemical classes by functional group and are identified in Attachment 3-10.

These chemical classes are a mechanism to evaluate the hazards of chemicals within the same functional group. Attachment 3-11 identifies the physical properties and toxicity information for the compounds evaluated. Only information specific to each compound within the chemical classes to be used in the modeling (see Section 5.0) has been provided.

3.2 WASTE ANALYSIS PLAN

This Waste Analysis Plan (WAP) was developed in accordance with the requirements of 40 CFR 265.14 and 35 IAC 724.113. This WAP includes sections on the facility description, selecting waste analysis parameters, selecting sampling procedures, selecting a laboratory and testing and analytical procedures, selecting waste re-evaluation frequencies, and special procedural requirements.

3.2.1 Facility Description

The Chicago Recycle Center is an organic chemicals reclamation and recycling facility that accepts organic chemicals and solvent wastes from Safety-Kleen toll customers and other industrial and commercial facilities and processes the materials to recover clean material for reuse or sale. The facility also functions as a fuels blending and storage facility for hazardous wastes.

3.2.1.1 Facility Processes and Activities

This section provides a description of major on-site processes and activities that generate or manage hazardous wastes.

3.2.1.1.1 Waste Management Processes

The Chicago Recycle Center receives used solvents, solvent mixtures, and other solvent-containing liquid and solid wastes from Safety-Kleen service centers, other Safety-Kleen Recycle Centers, toll customers, and from industrial and commercial users. Wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. Industries served by the Chicago Recycle Center include chemical manufacturers, pharmaceutical manufacturers, paint manufacturers, automobile, appliance and electronics manufacturers, foundries, metal fabrication shops, maintenance shops, and aircraft manufacturers in Illinois and other states. Wastes are received in containers (e.g., drums and bulk). Used solvents, solvent mixtures, and other types of wastes are stored at the facility and may be subsequently treated by a combination of processes including neutralization, distillation, fractionation, liquid-liquid extraction, evaporation, mixing, stripping, blending, filtration, and drying. Recovered products are either returned to Safety-Kleen toll customers or marketed as recovered solvent. Wastes may be blended into fuel for the cement industry or shipped offsite for further treatment or disposal.

The facility also has typical additional operations associated with these processes. These additional operations include raw material handling, equipment maintenance, and laboratories.

3.2.1.1.2 Raw Material Handling

Safety-Kleen uses several raw materials in the treatment processes that become characteristic or listed wastes when they are discarded; are off specification; become residues in tanks, containers, or equipment; or are spilled. These waste materials are either accumulated in tanks or are stored in the container storage area prior to shipment offsite for treatment or disposal.

3.2.1.1.3 Maintenance Activities

The maintenance department uses various oils, paints, heat transfer fluids, and solvents, that when discarded, can meet the definition of a hazardous waste. These wastes are typically collected in containers for off-site disposal.

3.2.1.1.4 Laboratory Activities

Laboratory activities generate a wide variety of waste streams that can meet the definition of hazardous waste. These streams can include residues from solvent extractions, titrations, or chromatography or are discarded and/or off-specification chemicals. These waste streams are generally sent offsite for treatment or returned to the process. Thermometers and other mercury containing devices can also be generated. These waste materials are typically sent offsite for recovery. The above materials are accumulated in containers prior to shipment to offsite facilities.

3.2.1.1.5 Site-Wide Wastes

Several waste streams are generated from normal site-wide activities. These waste streams typically include items such as spill cleanup, oils, and paint. These materials are properly classified, accumulated, and sent off site for treatment, disposal, and/or recycling.

3.2.1.2 Identification/Classification of Wastes

As described above in Section 3.1, the facility receives a variety of waste types for storage and/or recycling, such as ignitable characteristic wastes (D001), corrosive characteristic wastes (D002), toxicity characteristic wastes (D004 – D011, D018, D019, D021 – D030, D032 – D043), wastes from non-specific sources (F-code wastes), wastes from specific sources (K-code wastes), and certain commercial chemical products, manufacturing intermediates, or off-specification commercial chemical products (U-code wastes). These wastes are generally solvents or organic in nature. The facility also receives solid wastes (non-hazardous) and wastes regulated as special wastes in the state of Illinois. Lab packs and compressed gases are not accepted at the facility.

As described in Section 3.2.1.1, the facility also generates wastes related to the management of the facility. These wastes are usually still bottoms, residuals, and other related materials from the management of the wastes accepted at the facility. Small amounts of other wastes (e.g., laboratory solvents, etc.) may also be generated. These are either shipped directly offsite (e.g., lab packs) or may be managed in one of the hazardous waste management units at the facility. These facility generated wastes undergo the same waste analysis procedures as those accepted for management from offsite sources.

3.2.1.3 Waste Management Units

The Chicago Recycle Center has two types of storage units at the facility that are used to manage hazardous wastes, tanks and a container storage area. In addition, there are several process units at the facility that are exempt from the permitting requirements of the hazardous waste regulations. There are 105 tanks at the Chicago Recycle Center (75 existing and 30 proposed) that are used to manage hazardous wastes at the facility. These tanks may be used for storage prior to treatment, blending, or prior to offsite shipment of the material.

There is one container storage area at the Chicago Recycle Center that is used to manage hazardous wastes at the facility. This container storage area may be used for storage prior to treatment or prior to offsite shipment of the material.

Hazardous wastes generated by the Chicago Recycle Center are managed in less-than-90-day containers throughout the facility or in one of the permitted storage tanks. The containers are managed in accordance with the 90 day storage requirement for generators.

3.2.2 Selecting Waste Analysis Parameters

Waste analysis parameters are selected based on confirming the identification/classification and compatibility of the wastes. Analytical results are used in identifying the waste constituents, determining compatibility, and process/design considerations.

3.2.2.1 Site Generated Wastes

Newly generated waste streams will first be characterized by generator knowledge. Based on the generator knowledge determinations, the waste stream may be sampled and analyzed for appropriate parameters such as flashpoint, pH, reactivity, toxicity characteristics, volatile and semi-volatile organic compounds, etc. Other analytical parameters will be determined on a case-by-case basis (for example, identifying underlying hazardous constituents).

The generator knowledge information (and analysis, when required) will be used to properly classify the material. Once the material has been properly classified, a determination will be made as to its ultimate management. If the material is be processed at the Chicago Recycle Center, the material will undergo the same review for off-site materials. If the material is to be shipped off-site, additional parameters may be required by the ultimate treatment, storage, and disposal facility. These additional parameters will be evaluated as required by the offsite facility.

3.2.2.2 Wastes Received from Offsite

The analytical parameters for wastes received from offsite are determined based on the physical and chemical characteristics of a material and the management method(s) at the Chicago Recycle Center for that material. The Chicago Recycle Center has prepared lists of the analytical parameters used to determine the initial approval of a material for management at the facility as well as to obtain process and operating information used to assist the facility in the management of a particular material. These lists are identified in Table 3-1.

Table 3-1

Analytical Parameters for Wastes Received from Offsite

Phase Characteristic	Management Classification	Location
Liquid - Single Phase	Recoverable	Attachment 3-1
Liquid - Multiphase	Recoverable	Attachment 3-2
Liquid - Single Phase	General[1]	Attachment 3-3
Liquid - Multiphase	General[1]	Attachment 3-4
Solids – Minimal Liquids	General[1]	Attachment 3-5
Solids – Significant Liquids	General[1]	Attachment 3-6

[1]General includes fuel blending, neutralization, storage, filtration, drying, etc.

3.2.3 Selecting Sampling Procedures

Many factors must be considered in selecting the appropriate sampling procedures for the different types of materials managed at the Chicago Recycle Center. These factors include the type of material to be sampled, the representativeness of the sample method, whether the sample is retained in its original form and composition, and does the sampling method prevent contamination or changes in the concentration of the parameters to be analyzed. Safety-Kleen has selected specific sampling procedures based on the above factors, which are identified in Table 3-2.

Table 3-2

Sampling Methods and Equipment

Material	Method	Equipment
Extremely viscous liquid	ASTM D 140-70 or ASTM E 300	Tube sampler, thief, or Coliwasa
Crushed or powdered material	ASTM D 346-75 or ASTM E 300	Tube sampler, trier, scoop, or shovel
Soil	ASTM D 420-69 or ASTM E 300	Tube sampler, trier, auger, scoop, or shovel
Soil-like material	ASTM D 1452-65 or ASTM E 300	Tube sampler, trier, auger, scoop, or shovel
Fly ash-like material	ASTM D 2234-76 or ASTM E 300	Tube sampler, trier, auger, scoop, or shovel
Containerized liquids	SW-846 or ASTM E 300	Coliwasa, tube sampler, weighted bottle, bomb, or tank sampling port

In certain instances, it is necessary to obtain samples using methods other than those identified in Table 3-2. In these instances, the facility will either utilize other published sampling methods or sampling methods that ensure a representative sample of the material is obtained.

Bulk wastes and individual containers will be sampled using grab samples that are representative of the material to be sampled. Drum samples will be composited using a coliwasa for liquids, one sample from every ten drums for the same waste profile sheet in the same shipment. The first drum and every tenth drum received (e.g., eleventh, twenty-first, etc.) will be sampled and then composited. In cases where less than eleven drums are received for a particular waste profile sheet, the first and last drums will be sampled and composited. Multi-phased wastes will be sampled such that a representative sample is obtained by sampling each phase in an amount proportionate to the amount of that phase within the waste shipment.

3.2.3.1 Sample Preservation and Storage

Samples are preserved and stored using the appropriate containers and preservation methods specified in SW-846 or other approved methods. The sample containers are selected based on the

parameter to be analyzed (for example, certain analyses require glass containers, while others require polyethylene containers). In addition, special conditions may exist that require different types of glass containers (e.g., amber) or certain lids (e.g., teflon lined to prevent contamination, volatilization). Safety-Kleen will select the appropriate container based on the analytical parameters and nature of the waste to be sampled.

The appropriate sample preservation techniques identified for each parameter will be employed to ensure that the integrity of the waste remains intact while the samples are in transport to the laboratory and/or while temporarily being stored prior to or after shipment. In most cases, either no preservation method is required, or the method is to cool the sample to 4° C. In some cases, the samples must be pH adjusted or have specified preservative added. Safety-Kleen or contract laboratory/sampling personnel will preserve the samples based on the analytical parameters selected.

Materials that are sampled at the facility that will undergo analysis at the facility may not require sample preservation (e.g., receipt control samples, samples that will be analyzed quickly or only for operational information, etc.). The facility will make a case-by-case determination on how and when to preserve these samples, as necessary.

3.2.3.2 Sampling QA/QC Procedures

Sampling equipment is decontaminated before and between sampling events or is disposed to minimize the possibility of cross contamination. The equipment is decontaminated using a method appropriate to the type of material. For example, thiefs and triers are generally washed with soap and water to remove solids. Equipment blanks may also be sent for analysis. New sampling equipment which is known to be clean will not be decontaminated prior to use.

Samples of volatile materials will be directly placed into sample bottles, tightly sealed, and stored according to the appropriate preservation method specified. The material will be sampled in a manner to minimize changes to the material composition. Air space will be minimized in the sampling bottle.

Sampling and inspections are performed by specially trained personnel. The lab manager, or their trained representative, trains the sampling/inspection personnel and observes their techniques periodically to ensure a thorough understanding of sample collection, inspection, labeling, sample traceability, etc. is demonstrated.

The facility follows sample traceability as a minimum standard for all internal and external sampling and analysis. This involves the documentation of procedures so that a set of data can be traced back through the analyst, to the person performing the sampling, and then to the waste itself. All samples receive a unique sample identification number which facilitates this process.

3.2.3.3 Health and Safety Protocols

Proper health and safety precautions are to be maintained during any sampling activities. Sampling personnel are trained in the appropriate safety procedures to be used during sampling including PPE, monitoring, and site-specific situations. PPE is selected based on the material(s) to be sampled. In most cases, Level D (work boots, gloves, work uniform, safety glasses, hard hat) is adequate. Safety procedures employed during sampling (e.g., to prevent fires, spills, explosions, etc.) are described in Section 6.0.

3.2.4 Selecting a Laboratory and Testing and Analytical Parameters

Safety-Kleen may use internal and outside laboratories to perform analyses (when required) on waste streams. Several factors are considered when selecting an outside laboratory. These factors include a comprehensive QA/QC program, the technical analytical expertise, and the effectiveness of the information management systems. Laboratory facilities shall be formally evaluated prior to use and on a periodic basis.

3.2.4.1 Selecting a Laboratory

Certain criteria must be met for both internal and external laboratories, including a QA/QC program, chain-of-custody protocols, and standard operating procedures.

3.2.4.1.1 Internal Laboratories

Safety-Kleen laboratories have a QA/QC program in place to ensure that the analytical methods will generate data that is technically sound, statistically valid, and can be documented. The laboratories have established chain-of-custody protocols and standard operating procedures in place to ensure that established analytical parameter holding times are met. The laboratories also use quantitative methods of assessing QA/QC including, but not limited to, method blanks, duplicates, matrix spikes and surrogate spikes.

The Safety-Kleen laboratories are proficient in using established EPA analytical methods for hazardous waste determinations. The laboratories are able to achieve detection limits at sufficiently low levels to meet prescribed regulatory thresholds for parameters tested, when required.

The laboratories' information management systems ensure the availability of all relevant data generated including chain-of-custody records, accuracy and precision information, and analytical results. The laboratories' reports are clear and concise and include the applicable data validation information, where applicable.

3.2.4.1.2 External Laboratories

The selected laboratory must have a QA/QC program in place to ensure that the analytical methods will generate data that is technically sound, statistically valid, and can be documented. The laboratory must have established chain-of-custody protocols and standard operating procedures in place to ensure that established analytical parameter holding times are met. The laboratory must also use quantitative methods of assessing QA/QC including, but not limited to, method blanks, duplicates, matrix spikes and surrogate spikes.

The selected laboratory must be proficient in using established EPA analytical methods for hazardous waste determinations. The laboratory must be able to achieve detection limits at sufficiently low levels to meet prescribed regulatory thresholds for parameters tested, when required.

The selected laboratory's information management systems must ensure the availability of all relevant data generated including chain-of-custody records, accuracy and precision information, and analytical results. The selected laboratory's reports must be clear and concise and include the applicable data validation information.

3.2.4.2 Testing and Analytical Parameters

Attachment 3-7 provides a list of analytical parameters and the applicable analytical method which will be used by Safety-Kleen. In most cases, the methods to be used will be EPA SW-846, ASTM, or other approved methods. In cases where neither SW-846 or other established methods are available, the facility has prepared facility specific procedures. The source of these methods is identified as "facility" in Attachment 3-7. Procedures for these methods are provided in Attachment 3-7. Methods other than those specified in Attachment 3-7 may be used based on the sample type and any matrix interferences.

3.2.5 Selecting Waste Re-Evaluation Frequencies

Waste analyses are repeated as often as necessary to ensure that the data on the waste stream is accurate and up to date. At a minimum, analyses are repeated when the process or operation generating the waste has changed enough to: (1) cause a significant change in the chemical or physical properties of the waste; or (2) cause a manifest discrepancy that can not be resolved.

Each of the waste streams generated at the Chicago Recycle Center are re-evaluated individually on an as-needed basis. Most of the generated waste streams are re-evaluated using generator

knowledge through a review of the process generating the waste or by reviewing previous analytical results.

Wastes received from offsite are re-analyzed and re-evaluated at least once every five years. This analysis may be performed at an internal or external laboratory.

3.2.6 Special Procedural Requirements

This section provides discussion on several special procedural requirements applicable to the facility. These include receiving wastes from offsite, procedures for ignitable, reactive and incompatible wastes, Land Disposal Restriction requirements, 40 CFR 264 Subpart BB applicability, and 40 CFR 264 Subpart CC applicability.

3.2.6.1 Receiving Wastes from Off-Site Generators

Before Safety-Kleen can approve a waste for storage and/or treatment at the Chicago Recycle Center, detailed physical and chemical information about the waste must be submitted to the facility by the generator. For each waste stream that is a candidate for management at the facility, the facility needs the following:

- Material Profile Sheet (or a functionally equivalent waste stream data sheet);
- A detailed physical and chemical analysis of the waste as appropriate; and
- Other pertinent information such as Material Safety Data Sheets and manufacturer's specifications on out-dated materials, etc.

The Material Profile Sheet (see example provided in Attachment 3-8) determines the identity and acceptability of a particular waste stream pursuant to facility permit conditions and operating capabilities prior to any shipment of the waste to the facility. The Material Profile Sheet must contain information about the generator, physical and chemical characteristics of the waste, process generating the waste, applicable waste codes, DOT information, and generator certification that the information provided is accurate.

3.2.6.1.1 Waste Stream Profile Process

Safety-Kleen has developed a waste stream profile process to ensure that receipt of a waste at the facility is in compliance with all permits, company policy, and applicable federal, state, and local regulations. The Chicago Recycle Center follows this waste stream profile process as detailed in the flow chart provided as Attachment 3-9.

The first step in this process is the submittal of the information identified above (Material Profile Sheet, detailed physical and chemical analysis, MSDS, etc.) to the facility by the generator. The facility will determine if the information is sufficient to approve the profile. If not, additional information will be obtained from the generator. If necessary, a sample will be obtained and analyzed for a subset of the parameters provided in Attachment 3-1 through 3-6 necessary to make this determination. Once the facility determines the information is sufficient to approve the profile, it is evaluated for acceptance at the facility. The evaluation consists of the following:

- The capabilities of existing treatment and storage facilities are reviewed to ensure that the waste material can be satisfactorily managed by the facility or an off-site facility. For example, waste codes are compared to the facility's operating permit, current backlogs are assessed, appropriate treatment standards are identified and reviewed, etc.

- The physical and chemical characteristics of the waste material are reviewed to ensure that the material is compatible with other wastes which are present, and with the treatment facility's materials of construction. For example, pH is an important factor when storing waste in metal tanks or containers. Also, depending upon the structural integrity of the tank, specific gravity can be another important consideration.

- The waste's physical characteristics and chemical composition, generator identified waste codes, and description of the process generating the waste are reviewed to verify that: all applicable waste codes are properly identified; confirm that the waste analysis performed was appropriate for the material, waste codes assigned, process

generating the waste, and tentative method of treatment or disposal; and ensure that the waste material does not contain any specific waste codes or compounds which are prohibited and/or inappropriate for treatment and storage at the Chicago Recycle Center.

- Applicable land disposal restriction standards are identified and reviewed. This is performed to ensure that the facility is able to meet the appropriate treatment standard(s), where appropriate.

While the waste approval process may involve several departments such as the laboratory, sales, and operations, during the collection and generation of the aforementioned information, the laboratory has responsibility for the final review and approval or rejection of the waste.
Once the information which is necessary to make a profile has been collected, the facility assigns an unique identification number to each waste stream. All information which is applicable to the approval, rejection, and handling of the waste is managed under that number. Once a decision has been made regarding the approval or rejection of a waste stream, it is noted in the customer file and signed and dated by the person making the final decision. Any applicable comments regarding the waste, such as the reason for its rejection, are also included in the file. Included in Attachment 3-12 are copies of waste stream profiles of 6 typical wastestreams managed by the Chicago Recycle Center

3.2.6.1.2 Approved Waste Streams

Once a waste stream has been approved by the Chicago Recycle Center, the generator is contacted and the material is scheduled for initial shipment to the facility. Upon receipt at the Chicago Recycle Center for the first time, a representative sample is obtained from the shipment. This sample is then analyzed for the appropriate parameters identified in Attachments 3-1 through 3-6. The analytical results are then compared to the approved profile to ensure this information is accurate. If the analytical results conflict with the approved profile, the generator will be contacted and the discrepancy will either be resolved and the profile amended, or the material will be rejected back to the generator. If the analytical results verify the approved profile can be managed at the

facility, the shipment is accepted and the analytical results are added to the customer file. Additional shipments of material are then subject to the acceptance procedures identified in Section 3.2.6.1.3.

3.2.6.1.3 Acceptance Procedures

Incoming load verification begins upon arrival of the waste at the facility. Upon waste receipt, a visual inspection of the load is performed. A "fingerprint" sampling and analysis is then performed in accordance with the procedures described in this section to verify that a particular shipment of material is represented by the applicable material profile sheet.

In accordance with 40 CFR 264.72, manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest, and the quantity and type of hazardous waste the facility receives. Significant discrepancies in quantity are: (1) for bulk waste, variations greater then 10 percent in weight, and (2) for batch waste, any variation in piece count. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis.

Upon discovering a significant discrepancy, the facility will attempt to reconcile the discrepancy with the waste generator or transporter in accordance with 40 CFR 264.72. If the discrepancy is not resolved within 15 days after receiving the waste, the facility will immediately submit to IEPA a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest in question.

3.2.6.1.3.1 Wastes Received for Storage and Processing

These wastes might fall into such categories as: toll recycling, (customer provides the waste and the facility recycles the waste to their specifications); solvent recycling or recovery (the facility combines like solvent wastes and recovers these solvents for resale as specification recycled product); or fuels blending (non-recyclable flammable, combustible, and halogenated solvents are blended to specification, typically for energy recovery as kiln fuel for the cement industry).

At a minimum, samples from incoming loads are subjected to the fingerprint analyses in Table 3-3 to verify that the shipment matches the waste profile. These tests are a subset of the original profile. Tolerance limits for these parameters have been established in order to aid in the conformance evaluation. Table 3-4 contains the degree of agreement with the initial analyses for the parameters in Table 3-3.

Should a particular value (or values) exceed the specified tolerance limits, the waste is considered to be nonconforming and requires further investigation and/or analyses to resolve the discrepancy. The following events occur:

1. The sampling and analytical data from the samples are reviewed to verify that they are accurate.

2. If accurate, additional analyses may be performed and the data reviewed for its degree of agreement with the original waste profile.

3. Additional analyses beyond the original profile may be necessary in order to resolve discrepancies or to re-profile the waste.

4. After re-profiling, the data is used to update the waste profile.

5. The new waste profile is evaluated for its acceptability at the facility in accordance with Section 3.2.6.1.1.

6. The generator is contacted by the company. In cases where the waste is amenable to storage or treatment at the facility, the discrepancy is determined to be resolved between the company and the generator. Waste which is not amenable to acceptance by the facility is rejected as being non-conforming.

Table 3-3

Fingerprint Analyses

Parameter	Rationale for Selection
Physical Description	Used to determine the general characteristics of the waste stream. This facilitates subjective comparison of the sample waste with prior descriptions. Facility personnel check for color, general form, layering, and consistency.
pH	Required on all water-bearing liquid and semi-solid waste streams to determine the corrosivity of the waste. The apparent pH of non-aqueous wastes will also be performed.
VOC Analysis	Gas chromatography is used to determine the composition of the material.
Karl Fisher	Determines the amount of water in a particular waste stream.
PCB[1]	Applies to used oil and fuels related materials only.

[1]PCBs will only be analyzed for materials containing oils and/or paints.

Table 3-4

Tolerance Limits

Parameter	Method	Tolerance Limits
Physical Description	Facility	Must be correct, no tolerance other than color
pH	SW-846 9040 SW-846 9041 SW-846 9045	pH <2..... pH <2 pH 2 – 12.5..... pH 2 – 12.5 pH >12.5..... pH >12.5
VOC Analysis	Facility	Laboratory judgment depending upon the constituents present and their respective levels; deviations will be investigated.
Karl Fisher	ASTM	Used as a general indicator of the degree of contamination and the facility's ability to recover the solvent; no specific tolerance limits.
PCB[1]	SW-846	< 50 ppm present

[1]PCBs will only be analyzed for materials containing oils and/or paints.

3.2.6.1.3.2 Wastes Received for Storage Only

The facility may receive wastes in containers that are stored for a limited period of time prior to trans-shipment to other TSD facilities for processing. As described earlier, the facility profiles each waste stream prior to receiving the wastes. Wastes designated for trans-shipment are stored in the original containers and the containers are not opened until the wastes are received at the final processing facility.

The facility has adequate knowledge of the waste characteristics through the completion of a material profile for the waste stream. Therefore, additional receipt analysis is not necessary for wastes that are to be stored for a limited period of time and not processed (treated and/or commingled with other wastes). The material profile is used for the safe and proper management of the wastes while stored at the facility. The knowledge of the waste characteristics are utilized to

check waste manifests and container markings upon receipt and upon trans-shipment to ensure that the descriptions match the waste characteristics.

3.2.6.2 Procedures for Ignitable, Reactive, and Incompatible Wastes

Safety-Kleen identifies ignitable, reactive, and incompatible wastes either through the use of generator knowledge or analytical testing. Safety-Kleen does not accept reactive wastes. The Chicago Recycle Center takes the necessary precautions to prevent the accidental ignition or reaction of ignitable wastes (see Section 6.0).

In addition, incompatible wastes are identified, handled, and stored so as not to:

- generate extreme heat or pressure, fire or explosion, or violent reaction;
- produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- damage the structural integrity of the device or facility containing the waste; or
- through other like means threaten human health or the environment.

The facility utilizes DOT compatibility (see Attachment 4-3) for the purposes of identifying incompatible wastes. When two or more waste streams are to be mixed or stored near each other, a compatibility assessment will be performed prior to mixing. This assessment may include using knowledge of the materials, incompatibility tables (i.e., DOT compatibility), chemical reference documents, and/or laboratory analysis. The laboratory analysis is generally performed by mixing small aliquots of the materials in a laboratory hood and monitoring for the evolution of fumes, gases or vapors, or a temperature rise.

3.2.6.3 Land Disposal Restrictions

In accordance with the Land Disposal Restrictions (LDR) contained in 40 CFR Part 268, waste shipped offsite may need to be analyzed to determine whether the waste meets the applicable LDR treatment standards. If, based on process knowledge, Safety-Kleen knows that the waste does not meet the applicable treatment standards, no testing is necessary. If applicable, Safety-Kleen will conduct testing or use process knowledge tested for the applicable parameters in 40 CFR Part 268 to certify that a waste meets the applicable LDR treatment standards.

Waste that is sent offsite to a treatment facility that exceeds applicable LDR treatment standards will be supplied with LDR notifications with the shipment of waste that includes the information required in 40 CFR Part 268. Wastes determined through analysis to meet treatment standards as specified in 40 CFR Part 268 will be land disposed without further treatment. LDR certifications will be supplied with the shipment of waste that includes the information required in 40 CFR Part 268.

Notifications are required to be sent to Safety-Kleen for all wastes received from offsite requiring treatment. All notifications, certifications, and associated analytical results will be retained by Safety-Kleen as required by 40 CFR 268.7 and 40 CFR 264.73.

3.2.6.4 Subpart BB

In accordance with the requirements of 40 CFR 265 Subpart BB, the Waste Analysis Plan is to contain determinations on the applicability of the 40 CFR 265 Subpart BB requirements. The Subpart BB regulations are applicable to equipment that contains or contacts hazardous wastes with organic concentrations of at least ten (10) percent by weight.

The Subpart BB regulations further define equipment as being in light liquid service, gas/vapor service, and heavy liquid service. These categories are defined as follows:

- Light Liquid Service - Vapor pressure of one or more components in the waste stream is greater than 0.3 kilopascals (kPa) at 20°C, the total concentration of these pure components is equal to or greater than 20 percent, and the stream is liquid at operating conditions.

- Gas/Vapor Service - The waste stream is in the gaseous state at operating conditions.

- Heavy Liquid Service - Any other waste streams that are not in either gas/vapor service or in light liquid service.

Safety-Kleen has identified all the equipment that contacts organic wastes and has determined that all wastes regulated under the Subpart BB requirements meet the definition of "light liquid service" (see Section 13.0). The facility will determine any additional testing requirements as needed to demonstrate where Subpart BB is not applicable.

3.2.6.5 Subpart CC

The 40 CFR 265 Subpart CC regulations are applicable to certain tanks and containers that contain hazardous wastes with volatile organic concentrations greater than 500 part per million by weight. Safety-Kleen determined the applicability of the Subpart CC regulations to the tanks and containers at the facility assuming that all tanks and containers used to manage organics contained greater than 500 parts per million by weight of volatile organics. Where necessary, any testing required to determine the volatile organic concentration of a hazardous waste will be conducted using EPA approved methods (such as Method 25D). Any determination of vapor pressure required will be conducted using EPA approved methods.

11.6 Reporting - Prequalification and receipt results can be reported in either grams per kilogram (g/kg), weight-weight percent (wt/wt %). For reporting prequalification acidities and alkalinities using the default identifications, calculate acidity as sulfuric acid (use a milliequivalent weight of 49.0 mg/meq), and report alkalinity as sodium hydroxide (use a milliequivalent weight of 40.0 mg/meq). When reporting as another specific (identified) acid or base, use the milliequivalent weight of the specific acid or base known to be present, rather than those of the defaults (see Tables 1 and 2).

For other reporting purposes (e.g., regulatory compliance), results may be reported as mg $CaCO_3$ per liter (see Appendix 2).

12. CALCULATIONS

12.1 Acidity:

12.1.1 Gram per Kilogram (g/kg) Calculations:

$$Acidity\ (g/kg) = \frac{N \times V \times (Meq.\ wt.)}{(Sample\ Mass,\ g)}$$

Where:

N = *Normality of the NaOH Titrant (milliequivalents/mL)*

V = *Volume of NaOH Titrant (mL)*

$Meq.\ wt.$ = *Milliequivalent Weight of Acid (mg/meq).*
[Use 49.0 mg/meq when reporting acidity as sulfuric acid.]

12.1.2 Weight/Weight Percent (wt/wt %) Calculations:

$$\text{wt/wt \%} = \frac{N \times V \times (Meq.\ wt.)}{(Sample\ Mass,\ g)(1000\ mg/g)} \times 100\ \%$$

Where:

N = *Normality of the NaOH Titrant (milliequivalents/mL)*

V = *Volume of NaOH Titrant (mL)*

Meq. wt. = *Milliequivalent Weight of Acid (mg/meq).*
[Use 49.0 mg/meq when reporting acidity as sulfuric acid.]

12.1.3 Milligram per Liter (mg/L) as CaCO3 Calculations (Appendix II):

$$\textit{Acidity}\ (\text{mg } CaCO_3/\text{L}) = \frac{N \times V \times (1000\ mL/L)(50\ mg/meq.)}{(Sample\ Vol.,\ mL)}$$

Where:

N = *Normality of the NaOH Titrant (typically, 2.0 meq/mL)*

V = *Volume of NaOH Titrant (mL)*

50 mg/meq. = *Milliequivalent Weight of* $CaCO_3$.

12.2 Alkalinity:

12.2.1 Gram per Kilogram (g/kg) Calculations:

$$\textit{Alkalinity (g/kg)} = \frac{N \times V \times (Meq.\ wt.)}{(Sample\ Mass,\ g)}$$

Where:

N = *Normality of the HCl Titrant (milliequivalents/mL)*

V = *Volume of HCl Titrant (mL)*

Meq. wt. = *Milliequivalent Weight of Base (mg/meq).*
[Use 40.0 mg/meq when reporting alkalinity as sodium hydroxide.]

12.2.2 Weight/Weight Percent (wt/wt %) Calculations:

$$\text{wt/wt \%} = \frac{N \times V \times (Meq.\,wt.)}{(Sample\ Mass,\ g)(1000\ \ mg/g)} \times 100\ \%$$

Where:

N = *Normality of the HCl Titrant (milliequivalents/mL)*

V = *Volume of HCl Titrant (mL)*

Meq. wt. = *Milliequivalent Weight of Base (mg/meq).*
[Use 40.0 mg/meq when reporting alkalinity as sodium hydroxide.]

12.2.3 Milligram per Liter (mg/L) as CaCO3 Calculations (Appendix II):

$$Alkalinity\ (\text{mg } CaCO_3/\text{L}) = \frac{N \times V \times (1000\ mL/L)(50\ mg/meq.)}{(Sample\ Vol.,\ mL)}$$

Where:

N = *Normality of the HCl Titrant (typically, 2.0 meq/mL)*

V = *Volume of HCl Titrant (mL)*

50 mg/meq. = *Milliequivalent Weight of* $CaCO_3$.

12.3 Quantitation of Acids and Bases Other Than the Defaults:

When the method is used to determine a specific acid or base other than the defaults, as in association with the acid/base identification prequalification procedure, substitute the milliequivalent weight of the identified acid or base into the above equations (See Tables 1 and 2 for a list of equivalent weights). The equations will then be valid for quantitating the identified acid or base, unless the pH at the new equivalence point is not close to the phenolphthalein endpoint. While phenolphthalein is appropriate for titrating any strong acid or base, and many weak acids as well (e.g., acetic acid), phenolphthalein is *inappropriate* for titrating most weak bases (e.g., ammonia). In such cases, a more appropriate indicator may be used (e.g., bromcresol green) or the sample may be titrated to an appropriate pH. (Ammonia may also be determined by ISE using SK Method 9814.)

Example Calculation: It is found to take 40.0 mL of 0.500 Normal NaOH titrant to neutralize a 1.00 gram sample identified as sulfuric acid:

$$\frac{(0.500\ meq/mL)\,(40.0\ mL)\,(49.0\ mg/meq)}{(1.00\ g)\,(1000\ mg/g)} \times 100\ \% \quad = \quad 98.0\ \%\ H_2SO_4.$$

13. REFERENCES

13.1 **Annual Book of ASTM Standards**, Volume 11.01 Water (I) D1067, *Standard Test Method for Acidity or Alkalinity of Water.*

13.2 **Annual Book of ASTM Standards**, Volume 15.05 Engine Coolants; Halogenated Organic Solvents and Fire Extinguishing Agents; Industrial Chemicals. E301, *Standard Test Method for Total Acidity of Organic Acids.*

13.3 **Annual Book of ASTM Standards**, Volume 15.01 Engine Coolants; Halogenated Organic Solvents and Fire Extinguishing Agents; Industrial Chemicals. D2989, *Standard Test Method for Acidity-Alkalinity of Halogenated Organic Solvents and Their Admixtures.*

13.4 **Annual Book of ASTM Standards**, Volume 15.05 Engine Coolants; Halogenated Organic Solvents and Fire Extinguishing Agents; Industrial Chemicals. E223, *Standard Test Methods for the Analysis of Sulfuric Acid.*

13.5 **Annual Book of ASTM Standards**, Volume 15.05 Engine Coolants; Halogenated Organic Solvents and Fire Extinguishing Agents; Industrial Chemicals. E224, *Standard Test Method for the analysis of Hydrochloric Acid.*

13.6 **USEPA, Methods For Chemical Analysis of Water and Wastes,** EPA-600/4-79-020. **Method 305.1,** *Acidity.* March 1983.

13.7 **USEPA, Methods For Chemical Analysis of Water and Wastes,** EPA-600/4-79-020. **Method 310.1,** *Alkalinity.* March 1983.

13.8 **Laboratory Quality Assurance Manual,** Safety-Kleen Technical Center, Elk Grove Village, IL. Adopted on October 28, 1988.

4.0 PROCESS INFORMATION

This section describes the existing and proposed processes for the Safety-Kleen Systems, Inc. (Safety-Kleen) - Chicago Recycle Center. These processes include storage units and areas, load/unload areas, and process units. Proposed facilities will be designed and constructed in accordance with current engineering design standards and specifications. Based on the normal flow of waste into and through the facility, this section first describes the load/unload areas (truck stations), then addresses the storage units (container storage area and tank farms), and finally explains the process units.

4.1 TRUCK STATIONS

The existing and proposed tanker and truck trailer loading and unloading areas (truck stations) are shown in the existing and proposed site plans for the facility, included as Exhibits 3 and 4. Descriptions of each truck station are provided in Section 4.1.1. A discussion of truck station operations is provided in Section 4.1.2.

4.1.1 Truck Station Design

Truck Station #1 is an existing covered dual-tanker load/unload structure on reinforced concrete. It is located directly west of Tank Farm #5. Truck Station #1 is 37 feet wide by 75 feet long with a 16 foot high roll-up door at the North end. Exhibit 11 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the truck station. The entrance ramp slopes toward the center at 4 inches per 6 feet. The remaining pad slope is 1 inch per 8 feet.

Wastes are transferred from Truck Station #1 to the main tank farm distribution station via overhead steel pipe. The truck station piping systems and other ancillary equipment are associated with waste storage tanks, and are, therefore, regulated under RCRA. Pumps and flexible hoses associated with Truck Station #1 are located within secondary containment systems. Piping and other ancillary equipment associated with the operation of Truck Station #1 are inspected as part of

the facility inspection program (see Section 6.0). Permanent piping associated with the truck station is of continuous weld construction and the pipe connections are made using welded flanges.

The concrete floor and curbs of Truck Station #1 provide containment for any material involved in a spill or leak from a tanker. The roof over the truck station prevents stormwater from being collected in the secondary containment system, and rainwater run on is prevented by a concrete curb around the truck station. Stormwater from the roof of Truck Station #1 is segregated to prevent contact with any hazardous wastes or contaminated areas. Stormwater from the roof drains of Truck Station #1 is handled as non-contact material and is discharged to the storm sewer.

Truck Stations #2 and #3 are existing facilities used for the loading and unloading of containers from truck trailers. Each truck station consists of an uncovered, reinforced concrete pull-through ramp and concrete pad. Truck Station #2 is located immediately west of Tank Farm #1. Truck Station #3 is located immediately east of Tank Farm #1. Truck Station #2 is 18.3 feet wide by 100 feet long and Truck Station #3 is approximately 25.8 ft wide by 100 ft long (overall length includes entrance/exit roll bumps). Each truck station is designed to hold two truck trailers during loading or unloading. The truck station concrete pads slope to a center sump at 1 inch per 16 feet, although the entrance ramp slope is steeper for both truck stations. Exhibits 12 through 15 show details (i.e., dimensions, curbs, slopes, sumps) for Truck Stations #2 and #3.

The concrete floor and curbs of Truck Stations #2 and #3 provide impervious containment for stormwater and for any material involved in a spill or leak from a container located on a truck trailer.

Truck Station #4 is a proposed facility consisting of a covered dual tanker load/unload structure on reinforced concrete. It will be located directly west of Container Storage Area #1. Truck Station #4 will be 36 feet wide by 75 feet long with two 16 foot high roll-up doors at each end. Exhibit 16 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the proposed truck station. The truck station entrance ramp will slope toward the center at approximately 4 inches per 6 feet. The remaining pad will slope at approximately 1 inch per 8 feet.

Wastes will be transferred from Truck Station #4 to the main tank farm distribution station via overhead steel pipe. The truck station piping systems and other ancillary equipment are associated with waste storage tanks, and are therefore regulated under RCRA. Pumps and flexible hoses associated with the operation of Truck Station #4 will be located within secondary containment systems. Information on pump specifications for proposed Truck Station #4 is provided in Attachment 4-1. Permanent piping and other ancillary equipment associated with Truck Station #4 will be inspected daily as part of the facility inspection program (see Section 6.0). Permanent piping associated with the truck station will be of continuous weld construction, and the pipe connections will be made using welded flanges.

The concrete floor and curbs of Truck Station #4 provide containment for any material involved in a spill or leak from a tanker. The roof over the truck station will prevent stormwater from being collected in the secondary containment system, and rainwater run on will be prevented by a concrete curb around the truck station. Stormwater from the roof of proposed Truck Station #4 will be segregated to prevent contact with any hazardous wastes or contaminated areas. Stormwater from the roof drains of Truck Station #4 will be handled as non-contact material and discharged to the storm sewer.

Truck Station #5, a proposed facility to be located between Process Building #2 and Container Storage Area #1, will be used for the loading and unloading of containers from truck trailers. Proposed Truck Station #5 will be a covered, inclined, reinforced concrete structure approximately 77 ft wide by 128 ft long, including the dock area, with the capacity for two truck trailers. Exhibits 17, 18, and 19 show design and construction details (i.e., curbs, slopes, dimensions, sump) for the proposed truck station.

The concrete floor of Truck Station #5 will provide containment for any material involved in a spill or leak from containers located on a truck trailer. The roof over the truck station will prevent stormwater from being collected in the secondary containment system, and rainwater run on will be prevented by a concrete curb around the truck station. Stormwater from the roof canopy of proposed Truck Station #5 will be segregated to prevent contact with any hazardous wastes or

contaminated areas. Stormwater from the roof drains of the truck station will be handled as non-contact material and discharged to the storm sewer.

Truck Station #6 is the existing facility used for the loading and unloading of containers from truck trailers. Truck Station #6 is an uncovered, inclined, reinforced concrete pad which includes a dock area, with the capacity for two truck trailers. Design and construction of Truck Station #6 are similar to Truck Station #5 shown in Exhibits 17, 18, and 19.

4.1.2 Truck Station Operations

Load/unload operations at truck stations at the Chicago Recycle Center are carried out by, or under, the supervision of trained Safety-Kleen employees, as described in Sections 4.2 and 4.3. The truck stations are maintained as discussed in the following paragraphs. Each truck station is connected to one or more tank farms by above-ground piping to transfer wastes from containers or tank trailers to waste tanks.

The truck stations are inspected as part of the facility inspection program (see Section 6.0) for the presence of standing liquids and to evaluate structural condition. In the event that standing liquids are noted in a truck station area, the liquids will be removed using a portable pump. Stormwater will be discharged to the storm sewer following analysis to verify the absence of constituents at hazardous levels.

Liquids from minor spills and drips in the truck stations are covered with absorbent, which is then swept up and deposited into drums. Additional "chemical contact housekeeping wastes," including such items as used gloves, rags, and floor sweepings, may be placed in the same drums with the used absorbent. These hazardous waste residues are accumulated on-site and subsequently sent to an off-site licensed hazardous waste treatment, storage, or disposal facility.

In the event of a release of a large volume of waste inside a truck station, the appropriate response procedures will be activated and the liquid removed from the containment. Liquids will be pumped out of the containment area using a portable pump or a vacuum truck. The spilled materials will be

pumped to an on-site waste storage tank for subsequent reclamation in the Chicago Recycle Center's process units, or to a tanker truck for off-site management at a hazardous waste treatment, storage, or disposal facility. Additional details on the spill and emergency equipment and procedures at the Chicago Recycle Center are provided in Sections 5.0 and 6.0.

4.2 CONTAINER STORAGE AREA

The Chicago Recycle Center operates one container storage area for the storage of containers of waste. The location of Container Storage Area #1 is shown in Exhibits 3 and 4. Container Storage Areas #2 and #3, for which Safety-Kleen received permits to construct from Illinois EPA (IEPA) in December 1987, have been constructed but have not and will not be used for the storage of waste containers. Waste codes identified with an "S01" storage code in the Part A Permit Application in Section 1.0 of this permit application may be stored in containers at the Chicago Recycle Center.

4.2.1 Container Description

The Chicago Recycle Center accepts containerized wastes in new and reconditioned drums meeting DOT standards for the transport of hazardous wastes. Generally the generators from whom containerized wastes are received will use a solvent in their facility and then put the used solvent back into the same container. Most of the containers received are DOT specification steel containers, although on occasion DOT specification poly drums are received. Any type of container meeting DOT transportation requirements may be accepted by the facility. These containers will range in size from 5 to 110 gallons. Most containers currently received are not lined; most of the chemicals handled at the Chicago Recycle Center are compatible with steel. Containers will be reviewed by the facility to ensure they are compatible with the material to be managed in the container.

Table 1 provides the dimensions and stacking heights of each type of containers that may be used at the facility. Additional container sizes may be utilized at the facility. For purposes of storage and management, the facility will consider any additional size container to meet the stacking requirements of the next largest container size identified in Table 1. In most cases, containers will

be stacked on top of each other in a staggered (pyramidal) configuration to ensure they are stabilized. For example, when double stacked (two containers high) the two base containers will be placed on the storage area surface abutting each other and the container on the second level will be placed on top of the two base containers over the point where the two base containers meet. This method will ensure greater stability because the upper level containers will lock together the two containers beneath it. Pallets may be used to stack containers for added stability but are not normally used when storing 55 gallon containers at the Chicago facility. For non-metallic containers, the facility will review each container individually upon unloading to determine its ability to support other containers when stacked. Non-metallic containers that meet DOT requirements will be stacked in accordance with Table 1 as long as they appear to be structurally sound as a result of this review. Pallets are normally 4 inches in height.

Table 1

Container Stacking Specifications

Container Size (Gallons)	Containers/ Pallet*	Typical Stacking	Total Stacking Height
5	16 (4 x 4)	Quadruple Stacked (pallet between each layer)	122 inches
16	9 (3 x 3)	Quadruple Stacked (pallet between each layer)	120 inches
30	4 (2 x 2)	Double Stacked (pallet between each layer)	60 inches (one pallet high) 120 inches (two pallets high)
55	4 (2 x 2)*	Double Stacked (no pallets) Triple Stacked (no pallets)	78 inches 117 inches
85/110	2 (1 x 2)*	Single Stacked (no pallets)	60 inches

* If pallets were used, this is configuration. Pallets normally not used for stacking containers 55 gallons in size and above.

4.2.1.1 Container Stacking Specifications

The containers will only be stored in stacks in excess of 78 inches high under the following conditions:

a. Containers may be stored a maximum of ten feet high provided the following inspection and record keeping procedures are used:

1. The containers shall be clearly marked with the date received prior to being placed into storage.
2. The date on each container must be clearly visible from the ground level inspection aisle.
3. Each container stacked in an arrangement which is greater than 78 inches high shall be inspected daily for the following concerns:

   i. Condition of the containers;

   ii. Structural integrity of the containers;

   iii. Signs of leakage;

   iv. Missing bungs/tops;

   v. Signs of corrosion;

   vi. Stability of the pile; and

   vii. Visibility and readability of the label and date received.

b. The inspection identified in (a) above shall be conducted from a freestanding ladder, scaffold, or other device which allows the inspector to view the top of the containers.

c. Containers stored greater than 90 days shall be removed from the stack and stored in stacks less than 78 inches, unless a failure in the treatment system has prevented the timely processing of this waste and no additional storage space is available.

4.2.1.2 Container Storage Practices

The container storage area, as shown on Exhibit 20 is a 148.5 foot long, 57.5 foot wide concrete pad with curbs. The length of the pad runs in the north-south direction and the width of the pad is in the east-west direction.

South Side

The south side of the pad has a 6 inch wide, 11 inch high concrete curb. Safety-Kleen will store containers at a distance that is equal to the height of the stack from the inside edge of the curb. For example, single stack of 55 gallon drums will be stored at a distance of 3 feet (that is equal to the height of the drum) from the inside edge of the curb.

East Side

The east side of the container storage area has a 2 foot wide trench running in the north-south direction along the entire length (147.5 feet) of the pad. Safety-Kleen will store containers along the east side of the container storage area at a distance from the outside edge of the trench which is equal to or greater than the height of the stacked containers. For example, single stack of 55 gallon drums will be stored at a distance of 3 feet (equal to the height of the drum) from the outside edge of the trench.

North Side

The north side of the container storage area has container staging pad that is constructed of concrete. The concrete pad is sloped towards the container storage area to contain any spills. Safety-Kleen Corp. will store containers in a staggered configuration as shown in Exhibit 20B along the north edge of Container Storage Area #1. Any accidental tipping of containers will fall on the concrete staging areas that will prevent any spills from leaving contained areas.

West Side

Safety-Kleen Corp. uses the entire 147.5 foot long western portion of the container storage area for fork lift traffic that is used to store and remove containers. Therefore, there will be a six (6) feet distance between the first row of drums and the inside edge of the curb along the entire west end of the container storage area. Thus, Safety-Kleen will maintain a distance that is equal to or greater than the height of the drums from the inside edge of curb

4.2.2 Container Storage Area Design and Operation

Container Storage Area #1 consists of an uncovered, reinforced concrete pad with perimeter curbs. The approximate dimensions of the existing container storage area are 148.5 ft by 57.5 ft. The perimeter curbs on all four sides of the concrete pad are 6 inch wide, 11 inch high poured, reinforced concrete. Exhibit 20 shows design and construction details and Exhibit 20B shows waste container configuration for Container Storage Area #1.

The concrete floor of Container Storage Area #1 slopes to a 2 foot wide trench running the entire length of the east side of the storage area. The secondary containment structure provides containment for the stored containers, and the present storage capacity of Container Storage Area #1 is 108,900 gallons, equivalent to 1,980 55-gallon drums. Secondary containment calculations for Container Storage Area #1 are included in Attachment 4-1. The container storage capacity will be increased to 146,520 gallons (2,664 55-gallon drums) after the installation of a roof as shown in Exhibit 20B.

The amount of rainfall from a 25 year / 24 hour rainfall event in the Chicago metropolitan area is 4.5 inches. This is the amount of precipitation utilized in containment calculations for outdoor storage areas. See Attachment 4-11 for additional information.

4.2.3 Container Storage Area Containment

The base of Container Storage Area #1 is constructed of reinforced concrete. The base is free of cracks or gaps and is liquid tight to contain liquid in events of spills or leaks. Safety-Kleen has coated the concrete with an impermeable coating that is chemical and abrasive resistant (see Attachment 4-5).

Survey of the base of Container Storage Area #1 shows that the structural integrity of the concrete base is in very good condition. Containment system drainage, as shown in Exhibit 20, is discussed in Section 4.2.2. Containment system capacity calculation is provided in Attachment 4-1.

Run-on into the containment system is prevented by the presence of 6 inch high perimeter curbs. Accumulated liquid from precipitation and from leaks and spills are completely contained within the area and removed within 24 hours. The Container Storage Area #1 base is sloped towards a 2-foot wide trench located on the east side of the storage area. Accumulated liquid is removed using portable pumps.

Accumulated liquid is analyzed to determine presence of chemicals and if there is not evidence of contamination, then the liquid is pumped and discharged to the sewer system. If presence of chemicals is observed, then the water is managed as a hazardous material.

4.2.4 Container Management Practices

Container management generally falls into one of three categories: unloading, storage, and emptying. When a shipment of containers is accepted at the facility, it is unloaded from the truck trailer using a lift truck fitted with drum handling or pallet handling attachments. Containers are spread out in the dock staging area so that individual containers are accessible for inspection and sampling. Containers are counted to ensure agreement with the manifest or shipping papers and inspected to ensure that the containers are structurally sound and are marked and labeled in

compliance with RCRA and other applicable regulations (an example marking/label is provided as Attachment 4-9). The contents are sampled, using the procedures discussed in the Waste Analysis Plan (see Section 3.0), to confirm that the wastes are suited for storage and processing at the Chicago Recycle Center.

After the waste analyses have been completed, containers are moved to a destination assigned by the production management. Containers of waste are stored to await subsequent emptying to the process units or to a storage tank. Containers are transported within the facility by trained personnel using lift trucks with drum handling or pallet handling attachments.

Containers are tracked in the facility upon arrival through a "drum tracking system". The containers are placed in a row on the container storage area and assigned a lot number, which is marked on the container. The lot number is based on the date received (year, month, day), the lot for the day, and the number of drums. The drum tracking log indicates the lot number, the date received, the customer name, the total number of drums, whether it arrived on a manifest, the hazard class, the material type, the laboratory disposition, the pumped to tank date, and the tank they were pumped to.
Containers in storage are kept closed with all head bungs secure, preventing evaporation of any volatile materials in the container (the solvents received at the facility are valuable product, and, therefore, Safety-Kleen minimizes opportunities for loss).

Ignitable wastes are only stored in Row #3 and higher in Container Storage Area #1 to ensure they are greater than 50 feet from the facility property line. Exhibit 20, 20A, and 20B show the location of the storage rows in Container Storage Area #1. Exhibits 3 and 4 show the location of Container Storage Area #1 within the facility. Precautions are taken at the facility to prevent the accidental ignition of ignitable wastes managed in containers. Smoking is only allowed in prescribed areas, away from any containers of ignitable wastes. "No Smoking signs are posted conspicuously throughout the facility. In addition, ignitable wastes are separated from sources of ignition or reaction such as: (1) open flames; (2) smoking; (3) cutting and welding; (4) hot surfaces; (5) frictional heat; (6) sparks; (7) spontaneous ignition; and (8) radiant heat.

The facility determines the compatibility of materials during the acceptance procedure (see Section 3.0). The facility utilizes DOT compatibility (see Attachment 4-3) for the purposes of identifying incompatible wastes. If any wastes are identified as being incompatible, separate, portable containment devices will be utilized to ensure that incompatible materials are not mixed in the event of a spill.

Containers are stored in compliance with NFPA guidelines for flammable and combustible materials. Flammable liquids are stored in 2-high (6 1/2 ft. high) stacks. Combustible materials are stored in 3-high (10 ft. high) stacks. At least 2 foot aisles between rows to allow access for inspection. The types of materials stored in each row are identified in the facility operating record maintained at the facility. Smoking is prohibited in the container storage and handling areas, which are posted with "No Smoking" signs.

Container Storage Area #1 is inspected in accordance with the facility's inspection program (described in Section 6.0). Among the items checked during the inspection are the condition of the containers and the condition of the secondary containment system. Containers of waste to be processed through the facility's recycling units are emptied by one of several procedures, depending on the characteristics of the waste material. Liquid waste materials in containers will be transferred into waste storage tanks using pumps. Pumpable containerized wastes are pumped to bulk inventory, generally a tanker truck, prior to being pumped to waste storage and mixing tanks in a tank farm. Wastes that are not pumpable are presently poured from deheaded containers into bulk inventory.

Liquids from minor drips and leaks in container storage and handling areas are covered with absorbent, which is then swept up and deposited in drums. The same type of absorbent material is used as a housekeeping sweeping compound in the storage areas. Additional "chemical contact housekeeping wastes," including such items as used gloves, rags, and floor sweepings, may be placed in the same drums as the used absorbent. These hazardous waste residues are accumulated on-site and subsequently sent to an off-site licensed hazardous waste treatment, storage, or disposal facility.

Containers which are found to be leaking or in imminent danger of leaking are either opened and the contents transferred to another container, or are placed in overpack drums. The facility maintains a stock of overpack drums of sufficient size to hold a 55-gallon steel drum.

In the event of a large spill inside Container Storage Area #1, appropriate response procedures will be activated and the liquid removed from the containment area. Liquids will be removed from the containment area either using a portable pump or a vacuum truck. If possible, spilled liquids will be placed in a storage tank to await recycling through the facility's process units. Otherwise, the spilled liquids will be handled as a hazardous waste and sent off-site to an appropriate facility for treatment, storage, or disposal.

Stormwater is collected from Container Storage Area #1 in the secondary containment system. Accumulated stormwater is analyzed for the presence of constituents at hazardous levels; non-hazardous collected stormwater is discharged to the storm sewer. Stormwater containing constituents at hazardous levels may be processed through the Chicago Recycle Center's process units or transferred off-site for treatment and disposal at a permitted hazardous waste facility.

4.2.5 Containment System Drainage

Container Storage Area #1 is constructed of reinforced concrete floors with slopes to drain any accumulated liquids. As shown in Exhibit 20, the floor is constructed with slopes, trench and a sump for this purpose. The floor has varying slopes of 6 inches to 11 inches towards the 2 ft. wide trench. The trench is 2 feet wide and 150 feet long and the accumulated liquid on the storage area floor would drain into the trench. Details of the storage area and the sump are shown on Exhibit 20.

4.2.6 Containment System Capacity

Container Storage Area #1 has more than adequate capacity contain 10% of the total volume of containers taking into account displacement of containers and rainfall. The storage area at present would accommodate 1,980 - 55 gallon drums or 108,900 gallons. The drums would be stored in

three high stacks and would be stored in staggered manner to provide stability. Safety-Kleen plans to install a roof over the container storage area as shown in Exhibit 20B. Upon installation of the roof, the storage capacity will be increased to accommodate 2,664 - 55 gallon drums or 146,520 gallons.

4.3 TANK STORAGE

The storage tanks at the Chicago Recycle Center are used for a variety of purposes, including product storage, in-process materials storage, hazardous waste storage, and wastewater storage. Of these uses, the storage of hazardous wastes and wastewaters are the only uses that are regulated under RCRA. This section describes the storage of waste materials at the Chicago Recycle Center; Section 4.4 briefly explains the recycling and recovery processes in use at the facility.

4.3.1 Types and Quantities of Wastes

Waste codes identified with an "S02" storage code in the Part A Permit Application in Section 1.0 may be stored in tanks at the Chicago Recycle Center. The waste stored in tanks at the facility include organic chemicals which may be ignitable. Ignitable wastes will not be treated in a tank system at the Chicago Recycle Center to render the waste non-ignitable. Further, the facility will not place incompatible wastes within a tank system or within a tank farm (see Section 3.2.6.2 for determining compatibility).

4.3.2 Tank Storage of Wastes

The Chicago Recycle Center stores wastes in tanks meeting applicable EPA standards for the storage of hazardous wastes. Tanks used at the facility are above ground. Tank detail sheets showing tank dimensions, shell thickness, supports, foundations, and other information for existing and proposed waste tanks at the facility, and construction detail drawings for the tank farms are provided in Exhibits 21 through 33, 40 through 45, and 47 through 72. The exhibits are listed in Table 4-12 below.

Table 4-12
List of Tank Farm Exhibits and Drawing Numbers

Exhibit Number	Drawing Number	Exhibit Title	Date of Exhibit
21	62000-152	Tank Detail Sheet – Tank Farm #1: Tank #104 and Tank Farm #4: Tank #5	9/09/88
22	62000-151	Tank Detail Sheet – Tank Farm #1: Tank #103 and Tank Farm #4: Tanks #1, #2, #3, and #4	9/09/88
23	62000-163	Tank Detail Sheet – Tank Farm #1: Tank #102	9/09/88
24	62000-164	Tank Detail Sheet – Tank Farm #1: Tanks #105 to #114	9/08/88
25	62000-504	Tank Farm #2 Design and Construction Details – Concrete Plan, Elevation, and Details	8/23/88
26	62000-185	Tank Detail Sheets – Tank Farm #2: Tanks #170 to #177	10/19/88
27	62000-189	Tank Detail Sheet – Tank Farm #2: Tanks #178, #179, #180	9/07/88
28	62000-506	Tank Farm #4 – Concrete Containment Details	8/30/88
29	62000-153	Tank Detail Sheet – Tank Farm #4: Tank #6	9/07/88
30	62000-154	Tank Detail Sheet – Tank Farm #4: Tanks #11 to #19	9/08/88
31	62000-155	Tank Detail Sheet – Tank Farm #4: Tanks #20	9/07/88
32	62000-156	Tank Detail Sheet – Tank Farm #4: Tanks #21	9/06/88
33	62000-157	Tank Detail Sheet – Tank Farm #4: Tanks #22 and #23	9/07/88
40	62000-507	Tank Farm #5 – Foundation Plan, Sections, and Details	8/31/88
41	62000-158	Tank Detail Sheet – Tank Farm #5: Tanks #31, #32	11/09/88
42	62000-159	Tank Detail Sheet – Tank Farm #5: Tanks #31, #32, #36, and #38	9/06/88
43	62000-160	Tank Detail Sheet – Tank Farm #5: Tanks #33, #39, and #51	9/08/88
44	62000-161	Tank Detail Sheet – Tank Farm #5: Tanks #34, #35, #40, #41, #46, #47, #52, and #53	11/09/88
45	62000-508	Tank Farm #6 – Foundation Plan	9/11/88
47	62000-150	Tank Detail Sheet – Tank Farm #6: Tanks #61 to #70, Tank Farm #7: Tanks #85 to #94, and Tank Farm #8: Tanks #182 to #185	10/27/88

Table 4-12
List of Tank Farm Exhibits and Drawing Numbers

Exhibit Number	Drawing Number	Exhibit Title	Date of Exhibit
48	62000-509	Tank Farm #7 - Foundation Plan	9/12/88
49	62000-510	Tank Farm #8 – Concrete Details	10/15/88
50	62000-511	Tank Farm #9 – Concrete Foundation Plan and Sections	9/12/88
51	62000-199	Tank Detail Sheet – Tank Farm #9: Tanks #115 to #120	9/21/88
55	7402-4300-101	Tank Farm #3 – T-195 & T-195	7/21/03
56	7402-4100-102	Tank Farm #1 – T-100 & T-101	7/21/03
57	7402-4400-102	Tank Farm #4 – T-1, T-2, T-3, T-6, T-19, T-22, T-23	7/21/03
58	7402-4400-103	Tank Farm #4 – T-13 & T-14	7/21/03
59	7402-4400-104	Tank Farm #4 – T-4, T-5, T-15, T-16, T-17, T-18	7/21/03
60	7402-4400-105	Tank Farm #4 – T-11, T-12, T-20, T-21	7/21/03
61	7402-4400-106	Tank Farm #4 – Knock-Out Tank & Chiller	7/21/03
62	7402-4400-107	Tank Farm #4 – Transfer Pumps #1, #2, #3, C-1400 Feed Pump, Luwa Feed Pump	7/21/03
63	P991-4200-100	Tank Farm #2 (DWG #1 of 2)	7/19/01
64	P991-4200-100	Tank Farm #2 (DWG #2 of 2)	7/19/01
65	620-4100-101	Tank Farm 4100 Extension	1/15/96
66	620-4500-101	Tank Farm 4500	7/2/96
67	620-4500-102	Tank Farm 4500	7/2/96
68	620-4500-103	Tank Farm 4500	11/24/99
69	620-4500-104	Tank Farm 4500	7/2/96
70	620-4500-105	Tank Farm 4500	7/3/96
71	620-4500-106	Tank Farm 4500	7/2/96
72	620-4500-107	Tank Farm 4500	7/2/96

Secondary containment is provided for the tanks and is constructed of reinforced concrete. The base is free of cracks or gaps and is liquid tight to contain liquid in events of spills or leaks. Safety-Kleen has coated the concrete with an impermeable coating that is chemical and abrasive resistant (see Attachment 4-5).

Hazardous wastes received at the facility are stored in Tank Farms #1, #2, #3, #4, and #5.

Wastewaters and stormwaters from the facility may be stored in specific tanks within these tank farms prior to processing or discharge, although at present these materials are stored in Tank Farm #3. Certain tanks in Tank Farm #5 are dedicated to storage of product or in-process materials at the present time. These tanks are not and will not be used for the storage of hazardous wastes, therefore, these particular tanks are not subject to the tank design and operating requirements of RCRA. The locations of the tank farms are shown in Exhibits 3 and 4.

Tanks at the facility are designed to API and NFPA codes. Because the tank structural and design standards for storage of product or waste materials are similar, existing and proposed waste, in-process material, and product storage tanks at the facility will meet engineering requirements for waste storage. An assessment of existing and proposed tanks at the Chicago Recycle Center performed by an independent registered professional engineer is included in Attachment 4-2.

Most of the waste tanks at the Chicago Recycle Center are constructed of stainless steel. Tanks are closed top and integrally constructed. Flat— bottom tanks greater than 15 years old that may contain waste materials will be situated on grooved pads designed to direct any leakage outward, so that leaks can be detected externally. Cone— and dish—bottom tanks are situated on legs; some tanks may be skirted, but skirts have access manways to allow for easy inspection and maintenance. There are no pressure vessels used for the storage of wastes at the Chicago Recycle Center. Hazardous waste tanks at the Chicago Recycle Center are not generally heated or cooled. Therefore, materials inside the waste storage tanks are at atmospheric pressure and ambient temperature. Tanks will be inspected daily to detect any leaks from or damage to the tanks.

Steel piping is used at the facility with the exception of the flexible hoses used in the truck stations. Flexible hoses are used only within secondary containment systems. Permanent piping is located above ground, and is inspected daily to ensure that structural integrity is maintained and that no leaks or drips are occurring. Couplings at pump stations and transfer points are done with flexible hoses equipped with mating camlock-type connectors. Camlock fittings are hose connectors which

are matched pairs and are either bronze or steel. The small fitting is inserted in the socket of the large fitting. The end of the small fitting rests on a compressible gasket on a shoulder at the bottom of the large socket.

Pumps associated with new waste storage tank systems will be located within secondary containment. Information on pump specifications for proposed new waste storage tank systems is provided in Attachment 4—2. Pipes and other ancillary equipment associated with new waste storage tank systems will be inspected daily as required by 35 IAC 724.293. Permanent piping located outside of secondary containment systems will be of continuous weld construction and the pipe connections will be made using welded flanges. New piping, valves, pumps, and other ancillary equipment used for handling wastes will meet RCRA regulations for ancillary equipment (35 IAC 724.293).

Gasket material is used at tank fitting connections, pump connections, and certain other connections. The types of gasket material currently in use include different types of compatible materials. Gaskets are considered to be maintenance and repair items and are normally discarded and replaced whenever maintenance work is performed on a particular fitting or connection. Gasket material selection is based on a combination of operating experience and manufacturer's recommendations. Therefore, replacement gasket materials will be selected to provide the same or better performance as those currently in use, although the specific materials may differ.

Tank Farm #1 is an existing facility subject to the requirement of 35 IAC 724.293. This tank farm is located east of Process Building #1. There are fifteen (15) tanks in Tank Farm #1 (Tanks T100—T114). Tanks T100 and T101 are dedicated exclusively to the storage of product material and are separately contained. Tanks T100 and T101 are not subject to RCRA requirements.

Tanks T102, T103 and T104 are dedicated for the use of hazardous wastes. These three tanks have separate individual secondary containments as shown in Exhibits 12 and 13. The exhibits show design and construction details (i.e., curbs, slopes, dimensions, sump) for tanks T102, T103 and T104 in Tank Farm #1 and Truck Station #2 secondary containment systems.

Tanks T105 through T114 were used for hazardous waste storage pursuant to the operating permit from the IEPA. These tanks were closed for hazardous waste usage as per the closure plan approved by the Agency. The tanks have been cleaned, and are dedicated exclusively to the storage of product material and will no longer be subject to RCRA requirements. Therefore, Safety-Kleen is not requesting permit for these tanks.

Secondary containments for Tanks T102, T103, and T104 in Tank Farm #1 are constructed of reinforced concrete with perimeter and individual dikes to prevent migration of spillage, leakage, or contaminated stormwater. The secondary containment concrete is coated with impervious chemical resistant coating to prevent migration of materials through the concrete. Secondary containment calculations for tanks Tl02, T103 and T104, provided in Attachment 4-1, show that there is adequate capacity to contain the contents of the individual tanks and precipitation for a 25-year, 24-hour rainfall event. Exhibits 21, 22 and 23 contain tank detail sheets for tanks T102-T104 in Tank Farm #1. Piping and ancillary equipment associated with Tank Farm #1 have welded connections outside of secondary containment. Assessment by an independent registered professional engineer certifying the integrity of the tank system is provided in Attachment 4-2.

Tank Farm #2 is located directly south of Process Building #1 and east of existing Tank Farm #3 and contains 11 stainless steel tanks with total capacity of 55,030 gallons. The tanks in Tank Farm #2 are used or available to store waste, in-process, or product material as needed, and, therefore, are designed and operated to meet RCRA requirements. Exhibit 25 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the Tank Farm #2 secondary containment system.

Tank Farm #2 is constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The existing dikes are coated with an impermeable coating compatible with the organic materials handled within the storage and process units. Secondary containment calculations for Tank Farm #2 are provided in Attachment 4-1. Exhibits 26 and 27 contain the tank detail sheets for the tanks in Tank Farm #2. Piping and ancillary equipment associated with Tank Farm #1 have welded connections outside of secondary containment.

Tank integrity assessment by an independent, registered, professional engineer is provided in Attachment 4-2.

Tank Farm #3 is located directly south of Process Building #1 and west of Tank Farm #2. The tanks with the exception of Tl94 and Tl95 in Tank Farm #3 have been removed from service. A closure plan to close tanks T190-T193 was submitted to the IEPA for approval. The tanks are currently in the process of closure. Tanks T194 and 195 will be continued to be used for hazardous waste storage.

Tanks T194 and 195 are situated in a secondary containment area constructed of reinforced concrete with perimeter dikes. The concrete is coated with impermeable chemical resistant material to prevent migration of chemicals through the concrete. The secondary containment calculation (Attachment 4-1) shows that there is adequate capacity to contain the contents of the largest tank and precipitation from a 25-year, 24-hour rainfall event.
Documents supplied in Section 4.0 and 14.0 of the May 8, 2002 Part B renewal application for the Chicago Recycle Center identified that the capacity of Tank 195 is 20,000 gallons. This is not correct. The maximum capacity of Tank 195, based upon actual measurements, is 17,749 gallons. Using standard engineering calculations, the tank capacity cannot be more than 17,749 gallons. Table 4-4 and 4-1 reflect the changed volume amounts. Tank system assessment by an independent, registered, professional engineer for Tank T194 and Tank T195 is provided in Attachment 4-2.

Tank Farm #4 is an existing facility located immediately south of Process Building #2, and contains 19 stainless steel tanks with total storage capacity of 106,000 gallons, as well as two carbon steel process tanks. The stainless steel tanks in Tank Farm #4 may be used to store waste, in-process, or product material as needed, and, therefore, are designed and operated to meet RCRA requirements. Exhibit 28 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the Tank Farm #4 secondary containment system.

Tank Farm #4 is constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The existing dike is coated with an

impermeable coating compatible with the organic materials handled within the storage and process units as indicated in Attachment 4-10. Secondary containment calculations for Tank Farm #4 are provided in Attachment 4-1. Exhibits 21, 22, and 29 through 33 contain the tank detail sheets for the regulated tanks in Tank Farm #4. Piping and ancillary equipment are of welded construction outside of secondary containment. Tank system assessment by an independent, registered, professional engineer is provided in Attachment 4-2.

Tank Farm #5 is a recently completed existing facility that is located east-northeast of Process Building #2 and directly east of Truck Station #1, and includes 11 carbon steel tanks and 20 stainless steel tanks. Some of the existing tanks in Tank Farm #5 (Tanks T54 - T60) are dedicated to storage of in-process or product materials and are, therefore, not subject to RCRA requirements. Other tanks may be used to store waste, in-process, or product material as needed; these tanks are designed and operated to meet RCRA requirements. The total storage capacity of the waste tanks in Tank Farm #5 is 360,000 gallons. Exhibits 34 through 39 contain process and instrumentation diagrams for Tank Farm #5. Exhibit 40 shows design and construction details (i.e., curbs, slopes, dimensions, drain trench) for the Tank Farm #5 secondary containment system.

Independent engineering certification of the tanks and ancillary equipment in Tank Farm #5 has been completed (Attachment 4-2), and the new tanks are designed and installed in accordance with the requirements of 35 IAC 724.193. Tank Farm #5 is constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The existing dikes are constructed of reinforced concrete, and are coated with an impermeable coating compatible with the organic materials handled within the storage and process units. Secondary containment calculations for Tank Farm #5 are provided in Attachment 4-1. Exhibits 41 through 44 contain the tank detail sheets for the regulated tanks in Tank Farm #5.

Tank Farm #6 is a proposed facility consisting of 10 stainless steel tanks, located adjacent to the existing Tank Farm #5. The total capacity of the tanks in Tank Farm #6 is 185,000 gallons. The proposed tanks in the tank farm will be used or available to store waste, in-process, or product material as needed, and, therefore, are subject to RCRA requirements. Exhibit 45 shows design and

construction details (i.e., curbs, slopes, dimensions, sump) for the proposed Tank Farm #6 secondary containment system.

Independent engineering certification of the proposed tanks in Tank Farm #6 has been completed (Attachment 4-2), and the new tanks will be designed and installed in accordance with the requirements of 35 IAC 724.292. Tank Farm #6 will be constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The proposed dikes will be coated with an impermeable coating compatible with the organic materials handled within the storage and process units. Secondary containment calculations for proposed Tank Farm #6 are provided in Attachment 4-1. Exhibit 46 contains the tank detail sheet for the tanks in proposed Tank Farm #6, and also for the tanks in proposed Tank Farms #7 and #8.

Tank Farm #7 is a proposed facility consisting of 10 stainless steel dish-bottom tanks with a total capacity of 185,000 gallons. The tank farm will be constructed adjacent to existing Tank Farm #2. The proposed tanks in the tank farm will be used or available to store waste, in-process, or product material as needed, and, therefore, are subject to RCRA requirements. Exhibit 47 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the proposed Tank Farm #7 secondary containment system.

Independent engineering certification of the proposed tanks in Tank Farm #7 has been completed (Attachment 4-2), and the new tanks will be designed and installed in accordance with the requirements of 35 IAC 724.292. Tank Farm #7 will be constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The proposed dikes will be coated with an impermeable coating compatible with the organic materials handled within the storage and process units. Secondary containment calculations for proposed Tank Farm #7 are provided in Attachment 4-1. Exhibit 46 contains the tank detail sheet for the tanks in proposed Tank Farm #7 and also those in proposed Tank Farms #6 and #8.

Tank Farm #8 is a proposed facility consisting of four stainless steel dish-bottom tanks with a total capacity of 74,000 gallons. The proposed tank farm will be located adjacent to existing Tank Farm #2. The proposed tanks in the tank farm will be used or available to store waste, in-process, or

product material as needed, and, therefore, are designed and operated to meet RCRA requirements. The proposed tanks will be designed and installed in accordance with 35 IAC 724.292. Exhibit 48 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the proposed Tank Farm #8 secondary containment system.

Tank Farm #8 will be constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The proposed dikes will be coated with an impermeable coating compatible with the organic materials handled within the storage and process units. Secondary containment calculations for Tank Farm #8 are provided in Attachment 4-1. Exhibit 46 contains the tank detail sheet for the tanks in proposed Tank Farm #8 and also those in proposed Tank Farms #6 and #7.

Tank Farm #9 is a proposed facility consisting of six stainless steel dish-bottom tanks with a total storage capacity of 90,000 gallons, to be located adjacent to existing Tank Farm #1. The proposed tanks will be used or available to store waste and, therefore, are subject to RCRA requirements. Exhibit 49 shows design and construction details (i.e., curbs, slopes, dimensions, sump) for the proposed Tank Farm #9 secondary containment system.

An independent engineering certification of the proposed tanks in Tank Farm #9 has been completed (Attachment 4-2), and the new tanks will be designed and installed in accordance with the requirements of 35 IAC 724.292. Tank Farm #9 will be constructed of reinforced concrete with perimeter and internal dikes to prevent migration of spillage, leakage, or contaminated stormwater. The proposed containment structures will be coated with an impermeable coating compatible with the organic materials handled within the storage and process units. Secondary containment calculations for proposed Tank Farm #9 are provided in Attachment 4-1. Exhibit 50 contains the tank detail sheet for the tanks in proposed Tank Farm #9.

Waste storage tanks are located on concrete pads or concrete/steel supports within defined containment areas. Containment volume comparisons are summarized in Table 4-1. Containment calculations for the regulated facilities are provided in Attachment 4-1. Dike configurations,

dimensions, sump locations and other construction details are illustrated in the Exhibits referenced above.

Tank Assessments

Assessments of existing tank systems, Tank Farm #2, #3, and #4 have been completed pursuant to the requirements of 35 IAC 725.292 and are provided in Attachment 4-2. Assessments of new tank systems, Tank Farm #1, #5, #6, #7, #8 and #9 are also provided in Attachment 4-2 pursuant to the requirements of 35 IAC 724.293.

External Corrosion Protection

The aboveground tanks are located on concrete secondary containment and they do not come in contact with soil or water. Therefore, no specific external corrosion protection is required for the tanks.

4.3.3 New Tank System Installation

An independent, qualified installation inspector or an independent, qualified, registered professional engineer will inspect each new tank system (Tank Farm #6, #7, #8 and #9) prior to covering, enclosing, or placing a new tank system or component in use. This inspection is to determine the presence of weld breaks, punctures, scrapes of protective coatings, cracks, corrosion and other structural damage or inadequate construction/installation.

All new tanks and ancillary equipment will be tested for tightness prior to being covered, enclosed, or placed in use. Repairs will be made if the tank system is found not to be tight prior to use of the tanks. A report will be provided to IEPA after completing construction but prior to operating of the new tank system.

It is the practice at the Safety-Kleen facility to support all piping and equipment with structural supports. All piping are aboveground and typically overhead pipe racks with steel supports as used

at the Chicago Recycle Center. Pumps and other equipment are located with concrete containment and would be secured to structural members of the tanks systems.

Tables 4-2 through 4-10 list existing and proposed tanks at the facility and indicate those that Safety-Kleen intends to make available for waste storage. The tanks for which Safety-Kleen requests a permit to hold RCRA hazardous waste are noted with an "X" on Tables 4-2 through 4-10. These tanks are located in existing Tank Farms #1, #2, #4, and #5, and proposed Tank Farms #6, #7, #8 and #9. The existing tanks in Tank Farm #3 (T190, T191, T192 and T193) are in the process of undergoing closure.

Tank use assignments are subject to change as business conditions change but are listed to illustrate the general operation of the facility. Only tanks designated for and permitted for hazardous waste storage will be used to store RCRA regulated materials.

Table 4-1

Secondary Containment Volume Comparison

Tank Farm	Total Waste Storage Capacity (Gallons)	Volume of Largest Waste Tank (Gallons)	Total Containment Volume (Gallons)	Required Containment Volume (Gallons)
Existing Tank Farm #1	158,000	12,500	218,958	33,240
Containment Upgrade to Tank Farm #1 (Tanks #102 - #104)	33,000	12,500	33,576	19,650
Tank Farm #2	55,030	6,500	22468	11,080
Tank Farm #3	29,584	17,749	40,370	
Tank Farm #4	106,000	15,000	116,204	22,174
Tank Farm #5	360,000	18,500	99,080	77,684
Tank Farm #6	185,000	18,500	34,019	26,439
Tank Farm #7	185,000	18,500	27,232	26,857
Tank Farm #8	74,000	18,500	23,774	21,871
Tank Farm #9	90,000	15,000	16,928	16,221

Table 4-2

Tank Schedule – Tank Farm #1 and Container Storage Area #1

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
102	23	SS/FB	12,500	Waste, In Process Material, or Product	X
103	22	SS/DB	12,500	Waste, In Process Material, or Product	X
104	21	SS/CB	8,000	Waste, In Process Material, or Product	X
105	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
106	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
107	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
108	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
109	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
110	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
111	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
112	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
113	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
114	N/A	SS/FB	12,500	Waste, In Process Material, or Product	
100 (FP2)	N/A	CS/H	11,000	In Process Material, or Product	
101 (FP1)	N/A	CS/H	11,000	In Process Material, or Product	

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-3

Tank Schedule – Tank Farm #2

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
170	26	SS/CB	3,500	Waste, In Process Material, or Product	X
171	26	SS/CB	3,095	Waste, In Process Material, or Product	X
172	26	SS/CB	5,335	Waste, In Process Material, or Product	X
173	26	SS/CB	5,335	Waste, In Process Material, or Product	X
174	26	SS/CB	4,500	Waste, In Process Material, or Product	X
175	26	SS/CB	3,095	Waste, In Process Material, or Product	X
176	26	SS/CB	5,335	Waste, In Process Material, or Product	X
177	26	SS/CB	5,335	Waste, In Process Material, or Product	X
178	27	SS/CB	6,500	Waste, In Process Material, or Product	X
179	27	SS/CB	6,500	Waste, In Process Material, or Product	X
180	27	SS/CB	6,500	Waste, In Process Material, or Product	X

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-4

Tank Schedule – Tank Farm #3

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
190*		CS/H	8,300	Wastewater	X
191*		CS/H	8,300	Wastewater	X
192*		CS/H	14,400	Wastewater	X
193*		CS/H	10,185	Wastewater	X
194	55	CS/H	11,835	Wastewater	X
195	55	CS/H	17,749	Wastewater	X

*Tanks 190, 191, 192, and 193 are in the process of undergoing closure.

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-5

Tank Schedule – Tank Farm #4

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
1 (D1)	22	SS/DB	12,500	Waste, In Process Material, or Product	X
2 (D2)	22	SS/DB	12,500	Waste, In Process Material, or Product	X
3 (D3)	22	SS/DB	12,500	Waste, In Process Material, or Product	X
4 (D4)	22	SS/DB	12,500	Waste, In Process Material, or Product	X
5 (D5)	21	SS/CB	8,000	Waste, In Process Material, or Product	X
6	29	SS/CB	8,000	Waste, In Process Material, or Product	X
11 (S1)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
12 (S2)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
13 (S3)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
14 (S4)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
15 (S5)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
16 (S6)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
17 (S7)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
18 (S8)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
19 (S9)	30	SS/CB	3,500	Waste, In Process Material, or Product	X
20 (S10)	31	SS/DB	1,000	Waste, In Process Material, or Product	X
21 (S11)	32	SS/DB	500	Waste, In Process Material, or Product	X
22	33	SS/CB	3,500	Waste, In Process Material, or Product	X
23	33	SS/CB	3,500	Waste, In Process Material, or Product	X
PCT #1	N/A	CB/FB	10,000	In Process Material	
PCT #2	N/A	CB/FB	10,000	In Process Material	

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-6

Tank Schedule – Tank Farm #5

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
30A	41	SS/PB	7,500	Waste, In Process Material, or Product	X
30B	41	SS/PB	7,500	Waste, In Process Material, or Product	X
31	42	SS/CB	15,000	Waste, In Process Material, or Product	X
32	42	SS/CB	15,000	Waste, In Process Material, or Product	X
33	43	SS/CB	15,000	Waste, In Process Material, or Product	X
34A	44	SS/PB	7,500	Waste, In Process Material, or Product	X
34B	44	SS/PB	7,500	Waste, In Process Material, or Product	X
35A	44	SS/PB	7,500	Waste, In Process Material, or Product	X
35B	44	SS/PB	7,500	Waste, In Process Material, or Product	X
36	42	SS/CB	15,000	Waste, In Process Material, or Product	X
37A	41	SS/PB	7,500	Waste, In Process Material, or Product	X
37B	41	SS/PB	7,500	Waste, In Process Material, or Product	X
38	42	SS/CB	15,000	Waste, In Process Material, or Product	X
39	43	CS/CB	15,000	Waste, In Process Material, or Product	X
40A	44	CS/PB	7,500	Waste, In Process Material, or Product	X
40B	44	CS/PB	7,500	Waste, In Process Material, or Product	X
41A	44	CS/PB	7,500	Waste, In Process Material, or Product	X
41B	44	CS/PB	7,500	Waste, In Process Material, or Product	X
42	43	SS/CB	15,000	Waste, In Process Material, or Product	X
43	43	SS/CB	15,000	Waste, In Process Material, or Product	X
44	43	SS/CB	15,000	Waste, In Process Material, or Product	X
45	43	SS/CB	15,000	Waste, In Process Material, or Product	X
46A	44	CS/PB	7,500	Waste, In Process Material, or Product	X
46B	44	CS/PB	7,500	Waste, In Process Material, or Product	X
47A	44	CS/PB	7,500	Waste, In Process Material, or Product	X
47B	44	CS/PB	7,500	Waste, In Process Material, or Product	X
48A	44	SS/PB	7,500	Waste, In Process Material, or Product	X
48B	44	SS/PB	7,500	Waste, In Process Material, or Product	X
49A	44	SS/PB	7,500	Waste, In Process Material, or Product	X
49B	44	SS/PB	7,500	Waste, In Process Material, or Product	X
50	42	SS/CB	15,000	Waste, In Process Material, or Product	X

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
51	43	CS/CB	15,000	Waste, In Process Material, or Product	X
52A	44	CS/PB	7,500	Waste, In Process Material, or Product	X
52B	44	CS/PB	7,500	Waste, In Process Material, or Product	X
53A	44	SS/PB	7,500	Waste, In Process Material, or Product	X
53B	44	SS/FB	7,500	Waste, In Process Material, or Product	X
54	N/A	SS/FB	20,000	In Process Material, or Product	
55	N/A	SS/FB	20,000	In Process Material, or Product	
56	N/A	SS/CB	15,000	In Process Material, or Product	
57A	N/A	SS/PB	7,500	In Process Material, or Product	
57B	N/A	SS/PB	7,500	In Process Material, or Product	
58	N/A	SS/CB	15,000	In Process Material, or Product	
59	N/A	SS/FB	20,000	In Process Material, or Product	
60	N/A	SS/FB	20,000	In Process Material, or Product	

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-7

Tank Schedule – Proposed Tank Farm #6

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
61	46	SS/DB	18,500	Waste, In Process Material, or Product	X
62	46	SS/DB	18,500	Waste, In Process Material, or Product	X
63	46	SS/DB	18,500	Waste, In Process Material, or Product	X
64	46	SS/DB	18,500	Waste, In Process Material, or Product	X
65	46	SS/DB	18,500	Waste, In Process Material, or Product	X
66	46	SS/DB	18,500	Waste, In Process Material, or Product	X
67	46	SS/DB	18,500	Waste, In Process Material, or Product	X
68	46	SS/DB	18,500	Waste, In Process Material, or Product	X
69	46	SS/DB	18,500	Waste, In Process Material, or Product	X
70	46	SS/DB	18,500	Waste, In Process Material, or Product	X

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-8

Tank Schedule – Proposed Tank Farm #7

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
85	46	SS/DB	18,500	Waste, In Process Material, or Product	X
86	46	SS/DB	18,500	Waste, In Process Material, or Product	X
87	46	SS/DB	18,500	Waste, In Process Material, or Product	X
88	46	SS/DB	18,500	Waste, In Process Material, or Product	X
89	46	SS/DB	18,500	Waste, In Process Material, or Product	X
90	46	SS/DB	18,500	Waste, In Process Material, or Product	X
91	46	SS/DB	18,500	Waste, In Process Material, or Product	X
92	46	SS/DB	18,500	Waste, In Process Material, or Product	X
93	46	SS/DB	18,500	Waste, In Process Material, or Product	X
94	46	SS/DB	18,500	Waste, In Process Material, or Product	X

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-9

Tank Schedule – Proposed Tank Farm #8

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
182	46	SS/CB	18,500	Waste, In Process Material, or Product	X
183	46	SS/CB	18,500	Waste, In Process Material, or Product	X
184	46	SS/CB	18,500	Waste, In Process Material, or Product	X
185	46	SS/CB	18,500	Waste, In Process Material, or Product	X

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Table 4-10

Tank Schedule – Proposed Tank Farm #9

Tank Number	Exhibit Number	Type of Tank[1]	Capacity (Gallons)	Normal Assigned Storage Use	RCRA Regulated
115	50	SS/CB	15,000	Waste, In Process Material, or Product	X
116	50	SS/CB	15,000	Waste, In Process Material, or Product	X
117	50	SS/CB	15,000	Waste, In Process Material, or Product	X
118	50	SS/CB	15,000	Waste, In Process Material, or Product	X
119	50	SS/CB	15,000	Waste, In Process Material, or Product	X
120	50	SS/CB	15,000	Waste, In Process Material, or Product	X

[1]Types of tanks are identified as:
SS – Stainless Steel Material
CS – Carbon Steel Material
CB – Cone Bottom Tank
DB – Dish Bottom Tank
FB – Flat Bottom Tank
PB – Piggy Back (Double Tank)
H – Horizontal Tank

Piping and Process Flow Diagrams

Steel Pipelines and manifold systems are used in the transfer of material into and out of storage tanks and tank trailers, production units and other process and ancillary equipment. Due to the variability of the piping and processes at the facility, it is not practical to identify piping diagrams.

4.3.4 Tank Storage Operations

Management of bulk wastes generally involves storage of wastes as well as transfers to and from the container storage area and truck loading/unloading stations. When a tanker loaded with waste is accepted at the facility, the manifest or shipping papers are examined to ensure that the waste matches the pre-qualification documentation and the contents are sampled, using the procedures discussed in the Waste Analysis Plan (see Section 3.0), to confirm that the wastes are suited for storage and processing at the Chicago Recycle Center. Bulk shipments of wastes are accepted for

processing through solvent recovery and recycling operations and for transfer to other Safety-Kleen facilities or to Safety-Kleen customers.

After the waste analyses have been completed, wastes in an incoming tanker are pumped to the storage tank assigned by the laboratory personnel in association with the facility management. On occasion, the contents of a tanker may be transferred directly to the process units. Transfers to and from tanker trucks take place only when the tanker is located within a secondary-contained truck station. Tankers will be electrically grounded during transfer operations, which are monitored by trained Safety-Kleen employees. This observation ensures that tank overfills are prevented, and that any spills or leaks will be observed and immediately responded to.

All tanks are equipped with high level alarms and level gauges, and sufficient freeboard is maintained to prevent overfilling of the tanks. The high level alarms in each tank are electrically connected to an alarm panel, audible alarm bells, and visual light indicators that are monitored by operational personnel. The alarm probe in each tank is located and positioned such that the level alarm system activates upon reaching 95% or less, of the tank's designed fill capacity. If a tank alarms due to high liquid level, operational personnel are required to acknowledge the alarm and immediately investigate the tank in alarm. A tank in actual high level alarm is then logged in the facility high level alarm record, and the tank inventory reduced to bring the tank out of alarm status. The facility operational personnel routinely conduct periodic high level alarm tests at the frequency of once per month. The purpose of the tests are to verify that all tank high level alarm channels are operating properly. If any tank high level alarms are found to be nonfunctional, a maintenance work order is generated to repair the malfunctioning tank alarm. A facility specific procedure and testing method has been established to test the tank high level alarm systems. Materials received and processed at the facility are viewed as valuable products; therefore, loss of the materials is prevented. In situations when the high level alarm is not operational, the facility may use the manual oversight procedures outlined in Section II.E.c.1.a-e of the Part-B operating permit, for no more than 90 days from the date the alarm is identified as nonfunctional. Instances of nonfunctional alarms and their return to service shall be noted in the operating record maintained by the facility.

All facility tank systems have dynamic level gauges that indicate the current liquid level in each tank. The level gauges are "strap and counter" type mechanical gauges. Facility operations personnel monitor the level gauges during all pumping and feed system operations. During the daily tank inventory process, the level gauges are jogged to ensure proper operation and accuracy. If a level gauge is found to be nonfunctional, a maintenance work order is written to have it repaired. The level gauges are also inspected annually by opening the unit and cleaning it. During the annual inspection and maintenance, the gauges are operated manually through their upper and lower travel extremes three times. During this exercise, the mechanical operation is checked along with the numbered level readings when the float is at the upper most position and the lowest position in the tank. The calibration is checked during the gauge float travel exercise. Any adjustments or repairs needed are done during this inspection and check. If adjustments are necessary, the gauge float travel sequence is repeated again to verify calibration settings. When all inspections, calibrations, and repairs have been completed, the gauge is then reassembled and new oil is added.

Material is transferred into and out of tanks and process equipment using pumps. Tanks are normally top-filled and bottom emptied, although some cone-bottom tanks have a second fitting near the bottom of the straight side which can also be used for filling and emptying. On occasion, materials may be circulated in and out of certain tanks to promote mixing, which can improve the homogeneity of the material. Material transfers are controlled by operators trained and skilled in chemical plant procedures. All feed systems and material transfers, from tank to tank, tank to process, process to tank, tank to tanker trailer, and tanker trailer to tank are conducted and controlled manually with pumps and monitored by trained facility operations personnel.

Tanks and tank farms are inspected in accordance with the facility inspection program (see Section 6.0). Among the items included in the inspection are condition of the tanks, integrity of secondary containment systems, and condition of tank level gauges and other ancillary equipment. Storage tank inventories are measured on a plant-wide basis each working day. Operational inventories are measured each time material moves into or out of a storage tank, including transfer of materials into or out of a tank trailer, into or out of a production process, or into or out of another storage

tank. An advance check on tank inventory is performed by the production supervisor to verify that there is available storage capacity in the tank to receive the material being transferred.

Tank corrosion and erosion at the facility are managed via a preventative inspection and maintenance program. Tank shell thickness is measured ultrasonically each year. A detailed visual inspection of the tanks interior is conducted every fifth year to ensure the tanks integrity according to existing permit condition in Section II, H, 6 in the facility Part-B operating permit. Measurements are taken by an inspector trained in the use of ultrasonic thickness gauges; the inspector is required to sign each report. After the inspector has filled out and signed the report on the thickness measurements of each tank, the report is sent to the plant manager. The plant assures that comparison of the measurements with previous test data for the tank are made to determine loss of metal thickness since the last test. Metal loss will be correlated with the time interval from prior tests. Attachment 4-6 provides information on the most recent internal tank inspections. Attachment 4-7 provides information on the results of thickness testing. Attachment 4-8 provides a summary table of the tank systems that required additional evaluation as a result of the tank system inspections.

Based on the recorded changes, the reviewer of the inspection report will enter any recommendations for work to be done on the tank onto the report form. The plant manager then forwards a copy to corporate offices and files the original in the plant files. After reviewing the report, corporate Safety-Kleen personnel decide on the work to be done on the tank (if any) and schedule such work. A tank history is provided as Attachment 4-4 documenting the results of the thickness testing.

The Chicago Recycle Center accepts and manages waste that exhibits the characteristic of ignitability in containers and tanks. Exhibit 7 (Existing Facility Traffic Flow, Emergency Equipment Locations and Evacuation Routes scale 1"=40') and 8 (Proposed Facility Traffic Flow, Emergency Equipment Location and Evacuation Routes scale 1"=50') of the Part B Permit Renewal Application indicate the location of existing and proposed hazardous waste tanks that are permitted to store ignitable waste. They are all located farther than 30 feet (tank volumes 751-12,000 gallons) and 40 feet (tank volumes (12,001-30,000 gallons) from the property line and public way, which is the minimum distance as required by NFPA 30, code 2-3.2, Table 2-1 and

Table 2-6.

Liquids from minor drips and leaks in the tank farms and truck stations are covered by absorbent, which is then swept up and deposited in drums. Additional "chemical contact housekeeping wastes", including such items as used gloves, rags, and floor sweepings, may be placed in the same drums as the used absorbent. These hazardous waste residues are accumulated on-site and subsequently sent to an off-site licensed hazardous waste treatment, storage, or disposal facility.

In the event of a release of a large volume of waste inside a containment system, appropriate response procedures will be activated and the liquid removed from the containment area. The spilled liquid will be removed from the containment area either by means of a portable pump or a vacuum truck. If possible, the liquids will be transferred to a storage tank to await processing through the facility's recycling units or blending in the fuels program. Otherwise, the material will be handled as a hazardous wastes, and will be transported to an off-site treatment, storage, and disposal facility. Additional details on spill and emergency response equipment and procedures are provided in Sections 5 and 6 of this permit application. In the case when there has been a leak or spill from a tank system or secondary containment system which causes the system to be unfit for use, the applicable system will be removed from service immediately until appropriate repairs have been made.

When a spill or leak is detected from a tank system or secondary containment system, the Chicago Recycle Center will evaluation the situation and follow the options available in 40 CFR 264.196(e). The Chicago Recycle Center will obtain the necessary Professional Engineer assessment and certification for major repairs prior to placing the tank system or containment system into service.

4.4 PROCESSES

The Chicago Recycle Center recycles and reclaims organic solvents from used solvents, solvent mixtures, and other solvent-containing wastes. To accomplish this, the facility uses several primary types of processes: (1) distillation, (2) evaporation; (3) fractionation; (4) neutralization; (5) liquid-liquid extraction; and (6) drying.

The Chicago Recycle Center receives containerized and bulk organic chemicals from industrial and commercial facilities for processing and recovery of clean material. The Chicago Recycle Center has two types of customers. For its toll waste customers, Safety-Kleen receives waste solvent materials from industrial and commercial facilities, processes the waste to recover product material, and then returns the product to the customer. For its solvent reclamation customers, Safety-Kleen receives and processes waste solvent materials from industrial facilities, but sells the recovered product on the market rather than returning it to the specific generator. The actual recovery processes used for wastes from recycle or toll customers are similar and are discussed below.

There is one simple distillation unit at the Chicago Recycle Center. This unit is the LUWA (trade name) thin film evaporator and is designated L1. The unit is located in Process Building #2.

There are five fractionation units at the Chicago Recycle Center. The columns are multiple-stage fractionation columns and are designated C1100 (Fl) through C1500 (F5). The locations of the fractionation columns are shown in Exhibits 3 and 4. Table 4-11 provides the location and size of the fractionation columns at the facility.

The fractionation columns are used to process most of the waste types received at the facility. A particular waste may be processed using the LUWA or one of the fractionation columns, or using the LUWA and one of the fractionation columns in sequence, depending on the waste composition and solids content. The bottoms fraction of the separated waste is recycled back into the LUWA or fractionation column charge tank, and the overhead vapors are condensed to in-process or product material. Overhead materials from the LUWA unit or fractionation columns may be further processed by additional fractionation or drying before being transferred to product tanks.

Table 4-11

Summary of Process Equipment at the Chicago Recycle Center

Unit Number	Nominal Throughput Capacity (gph)	Unit Location
C1100 (F1)	1,100	Presently located inside southeast corner of Process Building #1. Unit will be moved outside east side of Process Building #1.
C1200 (F2)	2,000	Tower structure outside east side of Process Building #1.
C1300 (F3)	1,500	Inside Process Building #2.
C1400 (F4)	1,500	Inside Process Building #2.
C1500 (F5)	500	Inside east side of Process Building #1.

Some acidic wastes, including bulk shipments of a mixture of dimethyl acetamide (DMAC), acetic acid, and water, are received at the Chicago Recycle Center. These wastes are neutralized with caustic solution on a batch basis or in-line as part of the process train. Batch neutralization is done in tanks and other process equipment located in Process Building #2. The throughput of the batch neutralization is variable, depending on the number tanks used and the processing time necessary for each batch, which is a function of the pH and composition of the acidic waste.

The neutralization and drying process identified in section 4.4 of the Part-B Permit Renewal Application identifies 6 separate processes that may be utilized individually or in combination to recycle hazardous and non-hazardous waste.

As noted in the 6th paragraph of section 4.4., the Chicago Recycle Center receives acidic waste that must be neutralized prior to being introduced into a distillation, evaporation or fractionation process unit. Because the process units and associated ancillary equipment are constructed of carbon steel, the caustic property of the waste would corrode the carbon steel and degrade the equipment. Since the neutralization is utilized only for the sole purpose of preparing the waste for further recycling, the neutralization process is considered part of the recycling treatment process that is exempt from hazardous waste permitting. The recycling exemption is identified in 40 CFR 261.6(c)(1). This section states that "the recycling process itself is exempt from regulation except as provided in 40 CFR 261.6 (d).

The waste is only stored in permitted hazardous waste tanks. Thus, waste that is being treated through neutralization is being managed in a contained (i.e., tank) permitted hazardous waste storage unit.

The Dryer process is typically the last step in the recycling process for particular products. Depending upon the final specific of the product, the moisture content of the product may need to be adjusted. The lowering or complete removal of water within the final product is easily done through one of the dryer systems operated on-site. These systems are never used to dry hazardous waste.

Several other wastes received at the Chicago Recycle Center, including aqueous solutions of organic chemicals are separated by liquid-liquid solvent extraction. A liquid-liquid extraction unit is used to separate one component of a mixture from the mixture by taking advantage of the different solubilities of the mixture components in an extraction solvent. The extracted organic chemical is further separated from the extraction solvent through fractionation and the recovered extraction solvent is reused in the extraction process.

There are two liquid-liquid extraction units at the Chicago Recycle Center. Designated E1 and E1800 (E2), they have capacities of approximately 600 and 1,800 gallons per hour, respectively. The locations of the two units are shown in Exhibits 3 and 4.

An ion-exchange resin bed dryer is operated at the Chicago Recycle Center to dry (dehydrate) fluorinated and chlorinated compounds and other waste or product materials as required. A molecular sieve is also used at the facility to dry materials. The molecular sieve is mainly used to dry tetrahydrafuran.

A waste solvent feedstock's level of contamination, solids content, water content, and overall quality will dictate the specific process units and unit passes to be used in a processing train to produce clean product material. The number of possible variations of specific processing trains for the numerous materials processed at the Chicago Recycle Center make it unrealistic to provide flow diagrams for each waste material processed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

NOV 14 2011

REPLY TO THE ATTENTION OF:

LR-8J

CERTIFIED MAIL 7009 1680 0000 7672 2629
RETURN RECEIPT REQUESTED

Mr. Gary Malinowski
Facility Manager
Recycling Services Center
Clean Harbors RSC LLC
1445 West 42nd Street
Chicago, Illinois 60609

Re: Information Request
Clean Harbors RSC LLC
EPA ID. NO.: ILD 005 450 697

Dear Mr. Malinowski:

By this letter, the U.S. Environmental Protection Agency (EPA) is issuing this Information Request to you under Section 3007 of RCRA, 42 U.S.C. § 6927. Section 3007 authorizes the Administrator of EPA to require you to submit certain information. This Information Request requires Clean Harbors RSC LLC (Clean Harbors or you) to submit certain information relating to the generation and management of hazardous wastes at the facility referenced above by EPA Identification Number, and located in Chicago, Illinois.

We are requiring this information to determine Clean Harbors' compliance status under Sections 3002 through 3006 of RCRA, 42 U.S.C. §§ 6922 through 6926, the regulations at 40 C.F.R. §§ 260-265, the requirements of the Illinois Administrative Code (IAC), and the requirements of the March 12, 2004, Hazardous Waste Permit, as amended, issued to Clean Harbors by the Illinois Environmental Protection Agency (Illinois EPA). EPA may use the submitted information in an administrative, civil, or criminal action.

The enclosure specifies the information you must submit. You must submit this information within **30 CALENDAR DAYS** of receiving this request to the United States Environmental Protection Agency, at the following address:

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

Diane M. Sharrow
Land and Chemicals Division
RCRA Branch
Compliance Section 1
77 West Jackson Boulevard, LR-8J
Chicago, Illinois 60604

The information must be provided notwithstanding its possible characterization as confidential information or trade secrets. You may, under 40 C.F.R. Part 2, Subpart B, assert a business confidentiality claim covering all or part of the information in the manner described in 40 C.F.R. § 2.203(b). We will disclose the information covered by a business confidentiality claim only to the extent and by means of the procedures at 40 C.F.R. Part 2, Subpart B. You must make any request for confidentiality when you submit the information since any information not so identified may be made available to the public without further notice.

Under Section 3008 of RCRA, 42 U.S.C. § 6928, and 40 C.F.R. Part 19, EPA is authorized to seek civil penalties of up to $37,500 per day against Clean Harbors for failing or refusing to submit all of the information specified in this Information Request. Further, under 18 U.S.C. § 1001, Clean Harbors may be fined or imprisoned for up to five years for knowingly or willfully: (1) falsifying, concealing, or covering up a material fact; (2) making any material false, fictitious, fraudulent statement or representation; or (3) making or using any false writing or document knowing it contains any materially false, fictitious, or fraudulent statement.

Clean Harbors must submit all information specified in this Information Request under the signature of an authorized representative certifying that the information is true and complete to the best of the signatory's knowledge and belief. Should the signatory find, at any time after submitting the requested information, that any portion of the submitted information is false, misleading, or incomplete, the signatory must immediately notify Ms. Sharrow at the above address.

This Information Request is not subject to the Paperwork Reduction Act, 44 U.S.C. §§ 3501 *et seq.*, because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation.

You should direct questions about this Information Request to Diane Sharrow at (312) 886-6199.

Sincerely,

Lorna M. Jereza, Chief
Compliance Section 1

Enclosure

cc: Todd.Marvel@illinois.gov

INFORMATION REQUEST

Instructions:

Each item of this Information Request refers and relates to Clean Harbors RSC LLC (Clean Harbors or you) and/or its facility located at 1445 West 42nd Street, Chicago, Illinois 60609 (the facility). You must respond separately to each item of this Information Request. Precede each response with the number of the Information Request item to which it corresponds. For each document produced in response to this Information Request, specify on the document, or in some other reasonable manner, the number of the item to which it responds.

Definitions:

The following definitions apply to this Information Request. The following definitions have been taken from the Illinois Administrative Code Part 702, *et seq.* Corresponding federal definitions may be found in the Code of Federal Regulations, 40 C.F.R. § 260.10.

1. **"Authorized representative"** means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent, or person of equivalent responsibility.

2. **"Certification"** means a statement of professional opinion based upon knowledge and belief.

3. **"Facility personnel"** mean all persons who work at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance.

4. **"Operator"** means the person responsible for the overall operation of a facility.

4. **"Owner"** means the person that owns a facility or part of a facility.

5. **"Person"** means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.

6. **"Personnel"** or **"facility personnel"** means all persons who work at or oversee the operations of a hazardous waste facility and whose actions or failure to act may result in noncompliance with 35 Ill. Adm. Code § 724 or 725.

7. **"RCRA"** means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 *et seq.*).

Items of Request:

1. Identify all persons consulted in preparing the answers to this Request for Information.

2. Provide the full name and title for each person identified in response to Item 1.

3. Provide a copy of the Generator's Copy of Manifest (Tracking) Number 000039888 MWI, signed by Ronald A. Pawlak on behalf of Clean Harbors on July 21, 2011, and being sent to Clean Harbors Canada, Incorporated in Corunna, Ontario, Canada.

4. Provide the name of the facility acting as the exporter of this shipment of hazardous waste to Clean Harbors Canada, Incorporated in Corunna, Ontario, Canada.

5. Provide a copy of the notification and acknowledgement of consent for this shipment of hazardous waste to Clean Harbors Canada, Incorporated in Corunna, Ontario, Canada.

6. Provide the names and telephone numbers of all employees (both union and non-union including supervisors and managers) and contractors who worked at the Facility on July 21, 2011.

7. Identify all employees (both union and non-union including supervisors and managers) and contractors who were directly or indirectly responsible for the placement of hazardous waste into the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011.

8. Provide a copy of the job description of each employee identified in Item 7 above.

9. Provide a list of the training each employee identified in Item 7 above received from July 21, 2010 to July 22, 2011.

10. Provide a copy of the material and waste stream profiles associated with the hazardous waste placed into the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011.

11. Provide a copy of all analytical information generated by Clean Harbors as a part of the investigation and remediation of the explosion of the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 in Sawyer, Michigan.

12. Provide a copy of all documents generated by Clean Harbors and its insurers regarding the investigation and remediation of the explosion of the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 in Sawyer, Michigan.

13. Provide a copy of all documents regarding actual or potential hazards, and design, implementation or human error studies, as well as any root cause analysis or design and process changes made at the Facility in response to the explosion of the tanker trailer

associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 in Sawyer, Michigan.

14. Provide a copy of the process information contained within the facility daily operating record for July 20 and 21, 2011, as it pertains to the truck station(s), tank storage areas and / or tank farms associated with the placement of hazardous waste associated with Manifest (Tracking) Number 000039888 MWI into the tanker trailer on July 21, 2011 by Clean Harbors.

15. Provide a copy of all documents regarding the pressure and reaction of hazardous waste with the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 by Clean Harbors.

16. Identify the owner(s) as well as the operator(s) of the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 by Clean Harbors.

17. Identify all the customers by name, address, telephone number and Manifest (Tracking) Numbers associated with the organic chemicals and / or solvent hazardous wastes placed in the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 by Clean Harbors.

18. Identify all on-site processing (including chemical recycling, bulking, transfer and distillation) of all the organic chemicals and / or solvent hazardous wastes placed in the tanker trailer associated with Manifest (Tracking) Number 000039888 MWI on July 21, 2011 by Clean Harbors.

19. For the time period from July 21, 2010 to the present, provide the following:

a. the job title for each position at Clean Harbors that has hazardous waste job responsibilities (union, non-union and contractors), and copies of all supporting documents;

b. a written job description for each position at Clean Harbors that has hazardous waste job responsibilities (union, non-union and contractors), and copies of all supporting documents;

c. the name of the employee filling each position at Clean Harbors that has hazardous waste job responsibilities (union, non-union and contractors), and copies of all supporting documents;

d. a written description of the training provided to each employee filling each position at Clean Harbors that has hazardous waste job responsibilities (union, non-union and contractors), and copies of all supporting documents; and

e. copies of all records of hazardous waste and contingency plan classroom instruction and/or on-the-job training provided to each Clean Harbors employee (union,

non-union and contractor), with hazardous waste job responsibilities from July 21, 2010 to present.

20. Specify whether the training recorded in Item 19 above was directed by a person trained in hazardous waste management procedures, and whether the instruction taught facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they were or are employed, and provide copies of all supporting documents.

21. Specify the name, title, address and telephone number, as well as the employer of the person(s) trained in hazardous waste management procedures who conducted the training specified in Item 19 above.

22. Specify what training the person who directed the training at Clean Harbors had completed, and provide copies of all supporting documents.

23. Provide the following certification by a responsible corporate officer:

I certify under the penalty of law that I have examined and am familiar with the information submitted in responding to this information request for production of documents. Based on my review of all relevant documents and inquiring of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____ _____

Date Signature of Corporate Officer, Title

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

NOTICE No. EN-000146

CERTIFIED MAIL 7007 1490 0003 9692 3578

Mr. Gary Malinowski
Senior Compliance Manager
Clean Harbors Recycling Services of Chicago, LLC
1445 West 42nd Street
Chicago, Illinois 60609

ENFORCEMENT NOTICE

Dear Mr. Malinowski:

SUBJECT: Tanker Explosion - Travel America Truck Stop (July 21, 2011)
6100 Sawyer Road
Sawyer, Michigan 49085

The Michigan Department of Environmental Quality (MDEQ), Water Resources Division (WRD), Kalamazoo District Office, has referred this matter to the WRD's Water Enforcement Unit requesting initiation of an escalated enforcement action to recover the MDEQ's costs; natural resource damages; and a civil fine associated with a tanker truck explosion that occurred at the Travel America Truck Stop located in Sawyer, Michigan (Sawyer Truck Stop).

On July 21, 2011, MDEQ staff responded to an incident at the Sawyer Truck Stop where a tanker truck had exploded and spilled its contents. Some of the content was contained, but an undetermined amount was released to the storm sewer and subsequently to the Sawyer Village Drain, commonly known as Sawyer Creek which is a tributary to Lake Michigan. The waste manifest for the truck's content identified it as methyl ethyl ketone; however, subsequent analytical results determined that the primary component of the waste was sodium hydroxide. The high pH of the waste allowed the MDEQ to document and track the release in the creek using pH meters. The spill resulted in a fish kill of approximately 99 fish in Sawyer Creek and closure of the Warren Dunes State Park beach area for twelve hours. Clean Harbors Recycling Services of Chicago, LLC (Clean Harbors) has been identified by the MDEQ as the owner of the contents of the truck and responsible for the unauthorized discharge to the creek.

The release to Sawyer Creek was an unauthorized discharge to the waters of the state and contained injurious substances in violation of Section 3109(1) of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (NREPA) which states:

(1) A person shall not directly or indirectly discharge into the waters of the state a substance that is or may become injurious to any of the following:

(a) To the public health, safety, or welfare
(b) To domestic, commercial, industrial, agricultural, recreational, or other uses that are being made or may be made of such waters.

(c) To the value or utility of riparian lands.
(d) To livestock, wild animals, birds, fish, aquatic life, or plants or to their growth or propagation.
(e) To the value of fish and game.

Clean Harbors is also liable for the full value of injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction or loss resulting from the release pursuant to Section 20126a of Part 201, Environmental Remediation, of the NREPA, which states:

(1) Except as provided in Section 20126(2), a person who is liable under section 20126 is jointly and severally liable for all of the following:

(a) All costs of response activity lawfully incurred by the state relating to the selection and implementation of response activity under this part.
(b) Any other costs of response activity reasonably incurred under the circumstances by any other person.
(c) Damages for the full value of injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction, or loss resulting from the release.

An assessment for the loss of natural resources includes both the affected natural resources and the loss of services provided by that resource. The two significant natural resource damage losses directly attributable to the spill are the service loss at the Warren Dunes State Park and mortality to fish in Sawyer Creek.

The issues identified in this Enforcement Notice, as well as any additional violations discovered hereafter, must be formally resolved through entry of an Administrative Consent Order (Consent Order). The Consent Order will include provisions for reimbursement of MDEQ's costs incurred as a result of the spill; payment for natural resource damages; and payment of a civil fine for violating Part 31 of the NREPA. If Clean Harbors is willing to enter into a Consent Order, a draft Consent Order will be developed and sent to you under separate cover. In the event that Clean Harbors refuses to resolve this matter through entry of a Consent Order, the matter will be referred for litigation.

Clean Harbors may request a preliminary meeting with the MDEQ, WRD enforcement staff to discuss the issues detailed in this Enforcement Notice. If you would like to participate in such a meeting, please contact Ms. Barb Schaibly, Enforcement Specialist, Water Enforcement Unit, WRD, at 517-335-2207, not later than ten days from your receipt of this Enforcement Notice.

STATE OF MICHIGAN
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION

Date Issued: _____

_____
Barry H. Selden, Chief
Water Enforcement Unit
Water Resources Division

ADDRESS FOR FURTHER CORRESPONDENCE:

Barb Schaibly, Enforcement Specialist
Water Enforcement Unit
Water Resources Division
P.O. Box 30458
Lansing, Michigan 48909-7958

cc: Ms. Theresa Holz, United States Environmental Protection Agency
Mr. Cory Burks, Berrien County Emergency Management Coordinator
Mr. Michael Davidson, Chikaming Township Fire Chief
Mr. Randal Badiuk, Harold Marcus, Ltd.
Mr. Frank Ballo, MDEQ
Mr. Peter Ostlund, MDEQ
Mr. Kameron Jordan, MDEQ
Mr. Fred Sellers, MDEQ
Ms. Barb Schaibly, MDEQ

From: Diane Sharrow [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Friday, March 09, 2012 5:14 PM
To: Craig, John (DEQ)
Cc: Mark Palermo
Subject: Marcus Trucking / Clean Harbors

John,

We were wondering if we can obtain copies of the actions filed DEQ Water Resources Division has filed or issued (if they have been filed or issued)?

Also, can you tell us if there is an attorney from the AG's office assigned and if so can we get their name and phone number?

Or would they be willing to call Mark Palermo, the attorney here in Region 5 working with me on the Marcus Trucking / Clean Harbors investigation?

Mark Palermo's phone number is 312-886-6082.

Thank you,

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

FW: Marcus Trucking / Clean Harbors
Schaibly, Barbara (DEQ)
to:
Diane Sharrow
03/13/2012 10:07 AM
Hide Details
From: "Schaibly, Barbara (DEQ)" <SCHAIBLYB@michigan.gov>

To: Diane Sharrow/R5/USEPA/US@EPA

History: This message has been forwarded.

2 Attachments

Clean Harbors Enforcement Notice_12-12-2011.pdf

Harold Marcus Enforcement Notice.pdf

Per John's request, attached are the Enforcement Notices that were sent to Clean Harbors and Marcus Trucking.

At this point there is not an attorney assigned from our AG's office. We are still in the initial stages of negotiations and have not filed an action against either of the parties.

Barb Schaibly
Michigan Department of Environmental Quality
Water Resources Division
Enforcement Unit
517-335-2207
schaiblyb@michigan.gov

From: Craig, John (DEQ)
Sent: Monday, March 12, 2012 3:24 PM
To: Schaibly, Barbara (DEQ)
Subject: FW: Marcus Trucking / Clean Harbors

Barb, Can you please respond to this request? Thanks. John

EAGLE
SERVICES
CHESTERTON, IN
USDOT 587863
0513
22 7:20AM

2

553
HAROLD MARCUS
A-6031
EAGLE
22 7:19AM

EXIT
12
22 7:19AM

UNITED STATES
91101
TERRORIST
HUNTING PERMIT
COVERMASTER
DODGE
MICHIGAN
TJ 1 RD
22 7:18AM

EXIT
25
EXIT
12
EAST
ENGINE 701
911
22 7:14AM

1JA 169
22 7:17AM

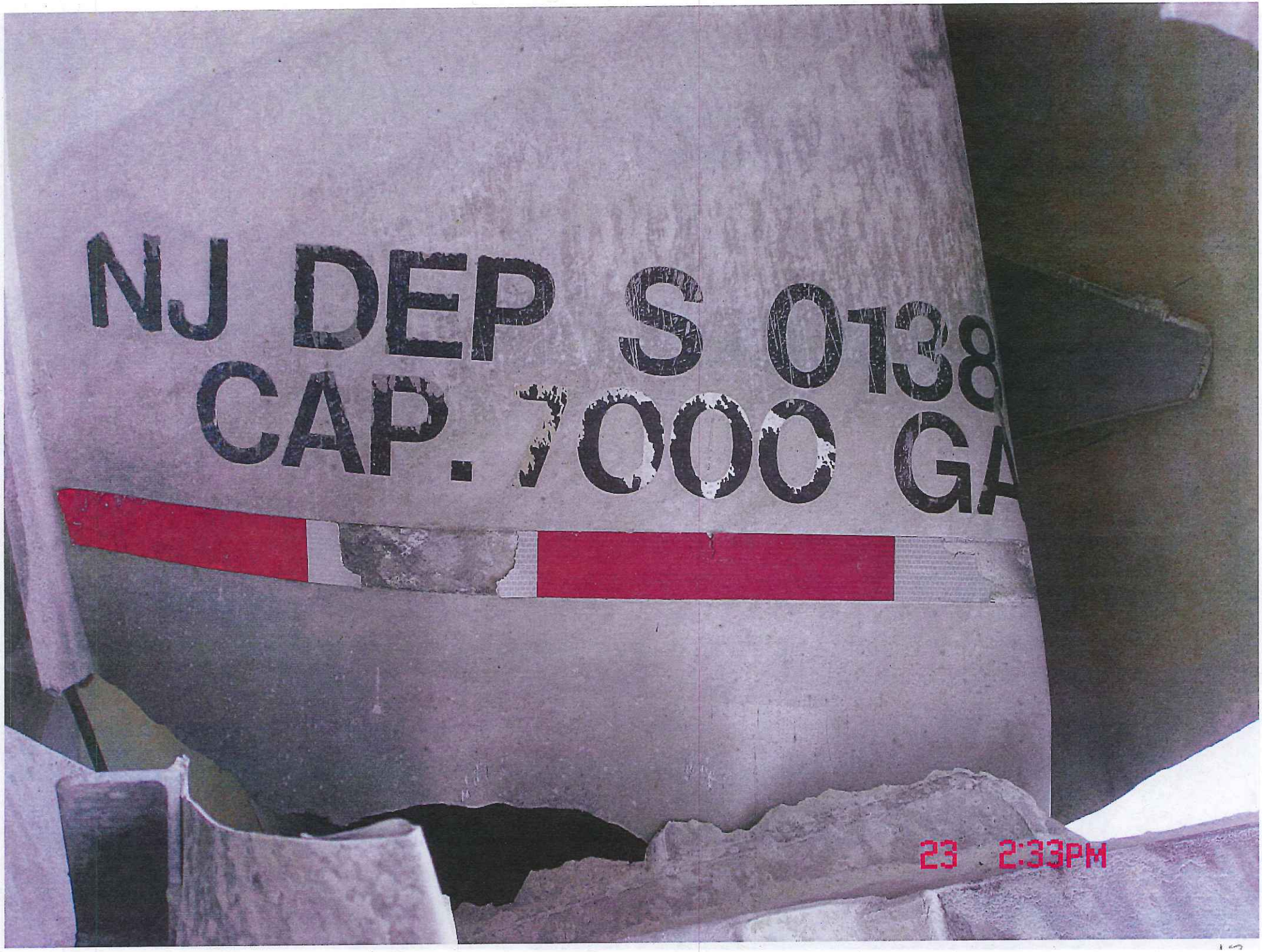
22 7:18AM

TAURUS
624DDJ
INDIANA
22 7:17AM

DODGE
NEON
WASHINGTON
423 · TCR
BRUCE TITUS
22 7:13AM

MICHIGAN
BBA 4395
22 7:12AM

22 7:12AM


NJ DEP S 0138
CAP. 7000 GA
23 2:33PM

GO TANK MOTOR VEHICLE MANUFACTURER

Inc. DOT REG. NO. CT-0181 FORT WORTH, TEXAS

V.I.N. 119AC15BDPF00317K

-29-94 MAWP 25 PSIG TEST PRESSURE 40 PSIG

PERATURE RANGE 0 °F TO 200 °F

GAL

7000 LBS/GAL

DENSITY 3.5

5454-H32 ALUM MAT. SPEC-HEADS 5454-0 ALUM

SQ. FT.

EXPOSED AREA 73

TOP .138 SIDES .133 BOTTOM .133 IN.

TOP .25 SIDES .25 BOTTOM .25 IN.

IN. MFG. THICK-HEADS .37 IN.

.25

DATE 1-29-94 CT DATE OF MFG. 1-28-94

LBS. LINING

0000

GALLONS PER MIN. AT -15 PSIG.

RATE 100 GALLONS PER MIN. AT 15 PSIG.

ING RATE 100 °F.

PRESSURE PSIG. HEATING SYSTEM TEMP

10506

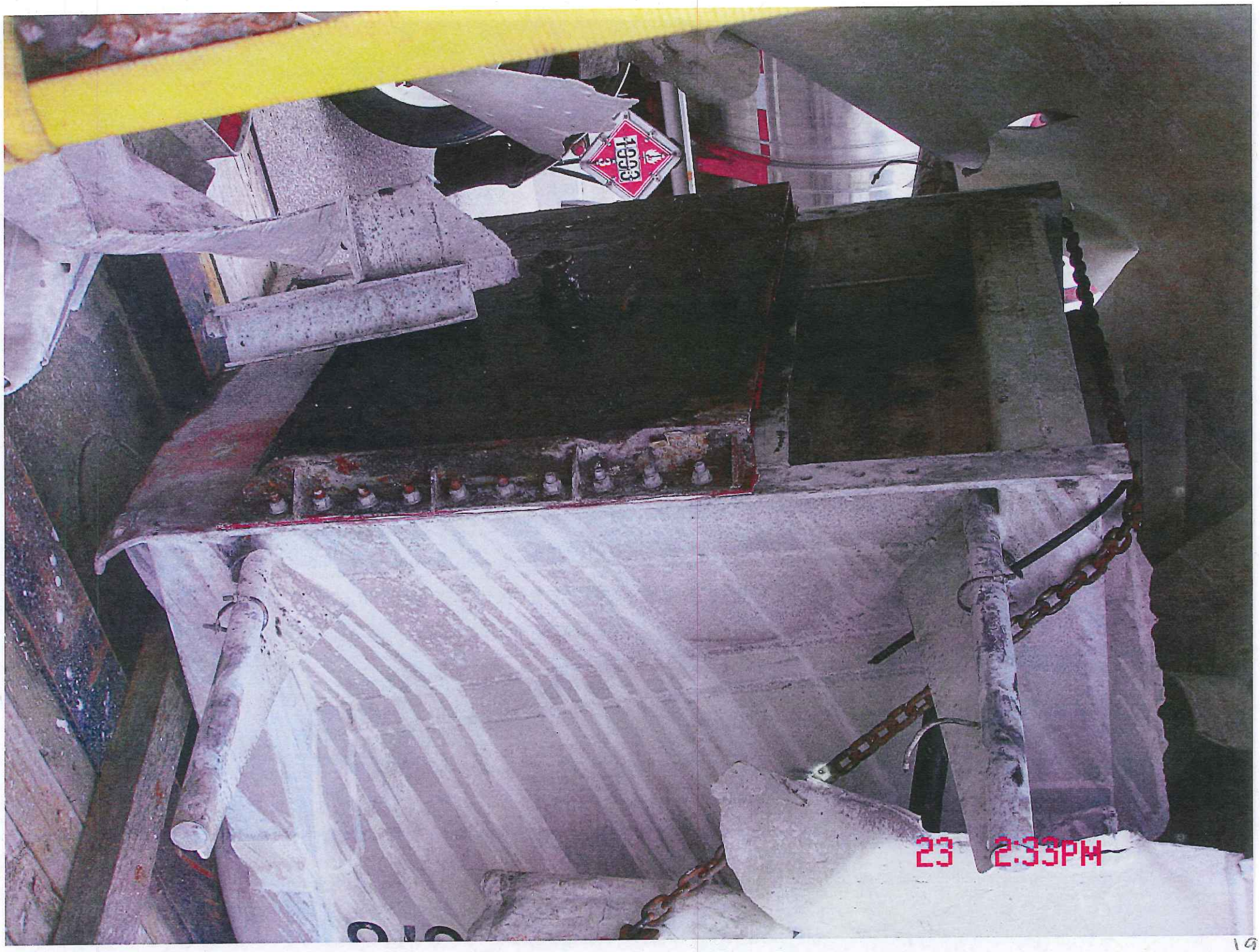
23 2:34PM

678
23 2:33PM

22 7:20AM

23 2:33PM

553
KENWORTH
HAROLD MARCUS
BOTHWELL, ONT. LTD.
US DOT 258108
FIRE EXTINGUISHER INSIDE
KYU-058632
HF-094543
M 307620
H 477
PROVISIONAL CERTIFICATE
A-8031
22 7:20AM


1993
23 2:33PM

MFG. BY Trailmaster® Tank's INC. FORT WORTH TEXAS

DATE OF MFG.

GVWR

GAWR LBS.		TIRES		RIMS		PSI/KPA (COLD INFLATION)	
1ST	W/				AT		DUAL
2ND	W/				AT		DUAL
3RD	W/				AT		DUAL
4TH	W/				AT		DUAL

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VEHICLE IDENTIFICATION NUMBER

CLASSIFICATION OF VEHICLE - TRAILER 11-87

MINISTRY OF THE ENVIRONMENT

TRAILER # 678 CAP. 274 L

5% VOL = 14.2 IN. OR 36.20

10% VOL = IN. OR 49.53

23 2:34PM

CTFD
22 7:21AM

678
NJ DEP

TA
STORE
22 7:12AM

HYUNDAI
ELANTRA
MICHIGAN
4GG R91
Great Lakes Splendor
22 7:12AM

22 7:11AM

22 7:10AM

22 7:10AM

22 7:10AM

22 7:09AM

CutlassSupreme SI
Oldsmobile
MICHIGAN
CEN 3740
www.Michigan.gov
SIEMANS
BRIDGMAN, MI
22 7:09AM

2A

LC
TOYOTA COROLLA
MICHIGAN MAR
CAQ 5224
22 7:08AM

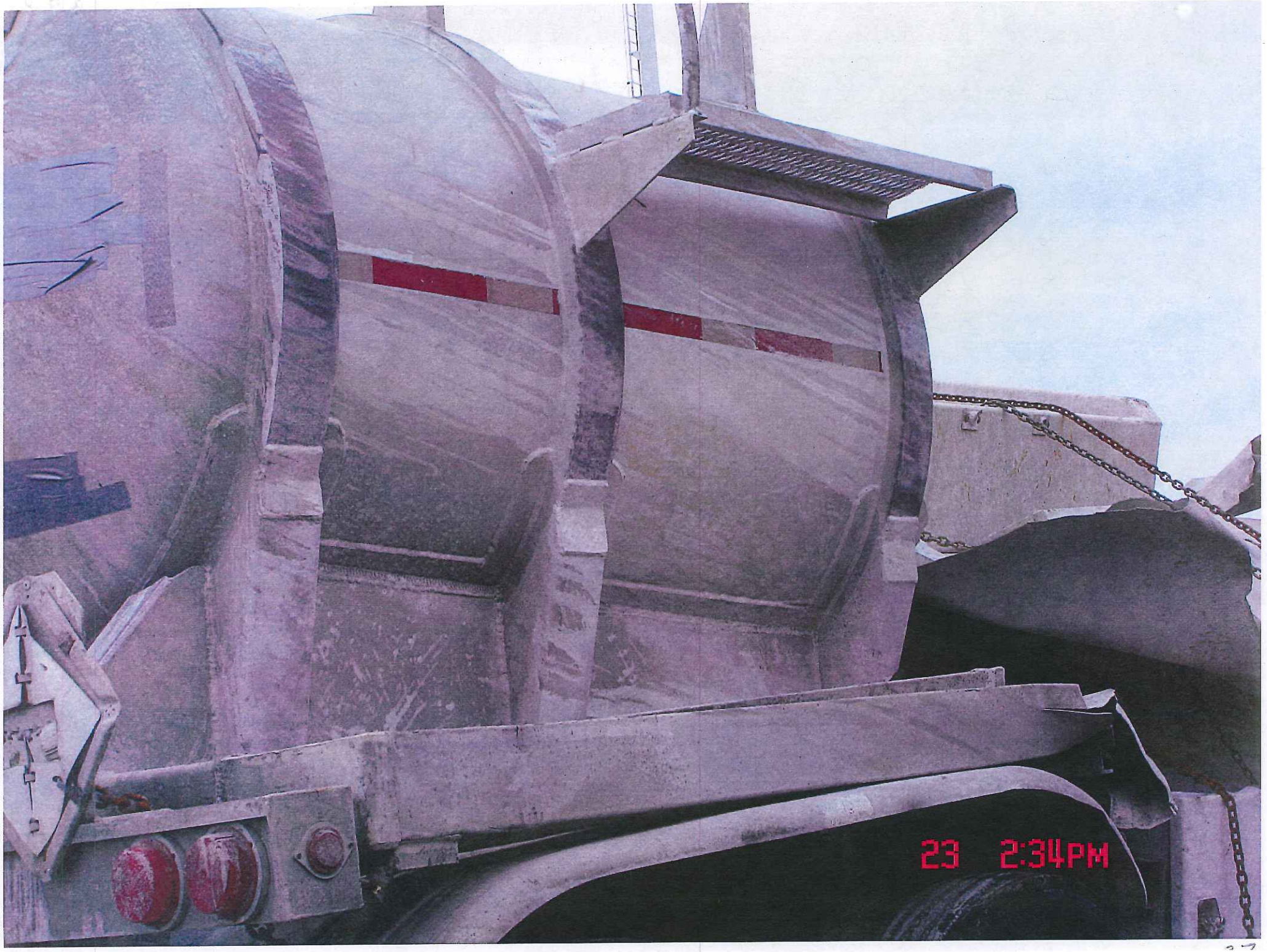
MICHIGAN
SEP
6BW35
PROFESSIONAL FIRE FIGHTER
CARAVAN
22 7:08AM

EXIT
22 7:07AM

23 2:35PM

23
2:35PM

7:08AM
22


23 2:34PM

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

October 19, 2012

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604

Re: Response to Notice of Violation
Clean Harbors Recycling Services Center
EPA ID: ILD 005 450 697

Dear Ms. Sharrow:

Clean Harbors Recycling Services of Chicago, LLC (Clean Harbors RSC) is in receipt of the Notice of Violation (NOV) dated September 13, 2012. By e-mail correspondence with Attorney Mark J. Palermo on September 29, 2012, Clean Harbors RSC requested and received an extension until October 19, 2012 to respond to the NOV. Below are Clean Harbors RSC's responses to the allegations in the NOV in the order they were presented in the NOV.

1. Allegation: Clean Harbors RSC failed to make a proper waste determination for the purposes of preparing a uniform hazardous waste manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it specified, "WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYLKETONE), when it actually placed a Sodium Hydroxide Solution (see Clean Harbors RSC Analytical Report Number 111572 dated July 21, 2011) in the tanker (container).

   Response: The material generated for the load to be transported was from a recycling process that contains flammable liquids. The pre-shipment sample of storage tank T-41B was submitted to the lab with the results reported on lab report # 111491 on 7/21/2011(See attachment 1. for lab report #111491). Lab report # 111491 shows the material having multiple organics in the liquid with a concentration of methyl ethyl ketone being the most significant. Based on the lab report and the prior knowledge of this waste stream, and because the liquid had a pH of 13 and flammable properties, the more hazardous determination of flammable liquids was chosen.

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

2. Allegation: Clean Harbors RSC failed to make a proper hazardous waste determination for the purposes of preparation of a land disposal restriction notification form (LDR Form) to be attached to a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

   Response: The land disposal restriction attached to the manifest 000039888MWI with the load listed EPA waste codes D001 for ignitable material as well as D002 for the corrosive characteristic.

3. Allegation: Clean Harbors RSC failed to comply with the Generator's Certification by: a) not fully and accurately describing the proper shipping name of the hazardous waste; b) not fully and accurately classifying, packaging, marking, and labeling/placarding the hazardous waste and its container; and c) not ensuring the hazardous waste and container were in proper condition for transport by highway according to applicable international and national government regulations for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011. Clean Harbors RSC also failed to comply with the Generator's Certification by: a) not properly completing Item 16 International Shipments when it failed as the primary exporter to check the export box, and enter the point of exit (city and state) from the United States; and b) not properly completing Item 9b- U.S. DOT Description (including Proper Shipping Name, Hazard Class, I+B13D Number, and Packaging Group) for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

   Response: At the time of the initial waste determination was made based on initial laboratory analysis, the shipping name chosen was deemed the most appropriate for the material. The marking, labeling/placarding chosen was based solely on the waste determination and shipping description. The waste container was not chosen by Clean Harbors but by the transporter. The condition of the trailer at the time of loading was checked for integrity with regard to closure and seals. Because an aluminum trailer is visually nearly indistinguishable from a stainless steel trailer, and Clean Harbors expected to be loading a stainless steel trailer, there was no question as to the material of construction of the trailer.

   With respect to completing Item 16 on the manifest, Clean Harbors RSC was not the "primary exporter" as that term is defined by the EPA. In the preamble to the August 8, 1986 regulations on exporting hazardous wastes, EPA recognized that multiple parties may be involved in the export process. EPA included in the definition of the "primary exporter" "any intermediary arranging for the export". For this shipment, Clean Harbors Environmental Services, Inc. in Burton, MI was the "primary exporter". The truck was in route to Burton, MI to obtain the required paperwork for export to Canada when the incident occurred.

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

4. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on packaging under 49 CFR Parts 173, 178 and 179, in violation of 35 IAC § 722.130 [40 CFR § 262.30], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), and not UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II

   Response: Clean Harbors RSC recycles organic solvents with multiple hazardous properties. Due to the nature of the recycling process, the final waste can have varying concentrations of both flammable and corrosive constituents. Based on the knowledge of the process and the preliminary analytical information (See attachment 1) the determination was made that the flammable characteristics of the waste took precedence over the corrosive characteristics and the waste was packaged accordingly. It was only after the incident where additional tests were run that contradicted the initial waste analysis.

5. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on labeling under 49 CFR Part 172, in violation of 35 IAC § 722.131 [40 CFR § 262.31], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but labeled the tanker (container) as if UN1983, waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

   Response: Clean Harbors RSC loaded the tanker (container) with material that was analyzed by laboratory analysis No. 111491 as having a percentage of methyl ethyl ketone at 10.53% and a pH of 13. Based on the laboratory analysis, Clean Harbors RSC chose the most appropriate description and label for the material for the known flammable hazard with a flash point of 140 degrees (F) in accordance with 49 CFR 173(2)(a)(8) [Classification of a material having more than one hazard].

6. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on marking under 49 CFR Part 172, in violation of 35 IAC§ 722.132(a) [40 CFR § 62.32(a)], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but marked the tanker (container) as ifUN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

   Response: Clean Harbors RSC loaded the tanker (container) with material that was analyzed by laboratory analysis No. 111491 as having a percentage of methyl ethyl ketone at 10.53% and a pH of 13. Based on the laboratory analysis, Clean Harbors chose the most appropriate description and marking for the material for the known flammable hazard with a flash point of 140 degrees (F) in accordance with 49 CFR 173(2)(a)(8) [Classification of a material having more than one hazard].

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

7. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on placarding under 49 CFR Part 172, Subpart F, in violation of 35 IAC § 722.133 [40 CFR § 262.33], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but placarded the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

   Response: Clean Harbors RSC loaded the tanker (container) with material that was analyzed by laboratory analysis No. 111491 as having a percentage of methyl ethyl ketone at 10.53% and a pH of 13. Based on the laboratory analysis, Clean Harbors chose the most appropriate description and placard for the material for the known flammable hazard with a flash point of 140 degrees (F) in accordance with 49 CFR 173(2)(a)(8) [Classification of a material having more than one hazard].

8. Allegation: Clean Harbors RSC, as the primary exporter who initiated the Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) for shipment of hazardous waste on July 21, 2011, commenced this shipment of a hazardous waste without a current or non-expired EPA acknowledgement of Consent as required and thus failed to comply with 35 IAC §122.153(c) [40 CFR § 262.53(c)].

   Response: Clean Harbors RSC commenced the shipment of waste on manifest 000039888 MWI destined for Corunna, ON Canada but it was not the "primary exporter" as discussed in Allegation No. 3 above. Clean Harbors RSC was transporting the material to Clean Harbors Environmental Services, Inc. in Burton, MI to act as the "primary exporter" to Corunna, ON Canada. The Acknowledgement of Consent and the Canadian Pre-Note Permit were going to be attached to the shipping document in Burton, MI.

9. Allegation: Clean Harbors RSC failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the point of exit (city and state) from the United States in the International Shipments block, and by not attaching an EPA Acknowledgement of Consent as stated in the certification.

   Response: Clean Harbors RSC commenced the shipment of waste on manifest 000039888 MWI destined for Corunna, ON Canada but it was not the "primary exporter" as discussed in Allegation No. 3 above. Clean Harbors RSC was transporting the

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

material to Clean Harbors Environmental Services, Inc. in Burton, MI to act as the "primary exporter" to Corunna, ON Canada. The additional data for the manifest was to be added to the manifest by the "primary exporter" and the Acknowledgement of Consent was to be attached to the manifest in Burton, MI.

10. Allegation: Clean Harbors RSC failed to comply with 35 IAC § 725.272[40 CFR § 266.172], when it placed a hazardous waste of sodium hydroxide solution in an incompatible aluminum container (Tanker Number 678) resulting in the explosion of the container (Tanker Number 678) on July 21, 2011.

    Response: Clean Harbors RSC recycles and recovers organic solvents with various and properties. The facility stores its material in tanks at the facility designed to be safely compatible with the organic materials because these materials have flammable and corrosive properties. When Clean Harbors RSC ships these materials as products or as waste, it does so with the same consideration for safe shipment using compatible containers and tankers. Clean Harbors RSC practice is to ship these materials on stainless steel bulk tankers and the facility would not knowingly ship these materials, products or waste in aluminum or non-compatible tankers or containers. The waste container was not chosen by Clean Harbors but by the transporter.

Clean Harbors RSC would respectfully request that the EPA consider the following mitigating factors when evaluating this incident:

i) **Degree of Culpability** The incident most likely occurred as a result of a reaction of the waste material with the aluminum tanker. The Manifest put the transporter on notice by including a D002 shipping code that indicated that the material was corrosive. The Profile for this waste also included an annotation that this material may contain sodium hydroxide. While Clean Harbors understands its obligations as the generator, Clean Harbors believes the selection of the aluminum tanker by the Transporter was at the very least a contributing factor to the incident.

ii) **Prior History** Clean Harbors Recycling Services of Chicago, LLC has no prior violations for improper closures or failure to use the proper shipping name on a shipping paper.

iii) **Corrective Actions** Clean Harbors promptly investigated the incident and implemented the following changes to our procedures to prevent reoccurrence as a result of the Management Team Investigation (MTI) that was conducted at the time of the incident:

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

Action Item	Status as of 10-19-2012
Review of Intercompany Profiles and In-house profiles	Completed – New bulk profile procedure implemented.
Evaluate Outbound Sales Order Process to narrow the proper DOT shipping name by profile.	Completed – New bulk profile procedure implemented
Create a "checkpoint" at the plant level to ensure load compatibility with respect to the tanker specifications.	Completed – Outbound Shipment Approval process implemented
Develop severity index for improved communications of incidents	In process – third revision with Executive Staff under review.
Modify company profile compatibility based on equipment type.	Completed – New bulk profile procedure implemented
Define and monitor training for all employees who require DOT Hazardous Material training.	Completed – PeopleSoft tracking.
Develop system to segregate bulk from drum profiles	Completed – New bulk profile procedure implemented
Review /amend the company's Crisis Management Plan to include the establishment of an On-Call qualified list of personnel, and creation of a conference call teleconference phone line dedicated to significant emergency response incidents	In process – To be implemented after the severity index is approved
Send letter to transportation vendors for the proper notification for emergency response incidents:	Completed – incorporated into the new waste transportation agreement for transportation vendors

In addition to the corrective actions above, Clean Harbors RSC has initiated additional corrective actions that were identified after the original MTI. To ensure the proper shipping name is selected using the new Bulk Shipping SOP, Clean Harbors developed a report to so we can audit each bulk shipment on a weekly basis. The results of the review and the discipline taken for infractions are distributed to the senior operational executives of the Company weekly.

Clean Harbors RCS requests the opportunity to meet with you and your staff to review the circumstances of this incident and the actions taken to prevent its reoccurrence. Please contact the undersigned with possible dates for a meeting at your convenience. Thank you for your assistance with this matter.

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

Sincerely,

Jeffery D. Haigh

ILD 005 450 697

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

RECEIVED
DIVISION FRONT OFFICE
OCT 23 2012
LAND AND CHEMICALS DIVISION
U.S. EPA - REGION 5

October 19, 2012

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604

Re: Response to Notice of Violation
Clean Harbors Recycling Services Center
EPA ID: ILD 005 450 697

Dear Ms. Sharrow:

Clean Harbors Recycling Services of Chicago, LLC (Clean Harbors RSC) is in receipt of the Notice of Violation (NOV) dated September 13, 2012. By e-mail correspondence with Attorney Mark J. Palermo on September 29, 2012, Clean Harbors RSC requested and received an extension until October 19, 2012 to respond to the NOV. Below are Clean Harbors RSC's responses to the allegations in the NOV in the order they were presented in the NOV.

1. Allegation: Clean Harbors RSC failed to make a proper waste determination for the purposes of preparing a uniform hazardous waste manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it specified, "WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYLKETONE), when it actually placed a Sodium Hydroxide Solution (see Clean Harbors RSC Analytical Report Number 111572 dated July 21, 2011) in the tanker (container).

   Response: The material generated for the load to be transported was from a recycling process that contains flammable liquids. The pre-shipment sample of storage tank T-41B was submitted to the lab with the results reported on lab report # 111491 on 7/21/2011(See attachment 1. for lab report #111491). Lab report # 111491 shows the material having multiple organics in the liquid with a concentration of methyl ethyl ketone being the most significant. Based on the lab report and the prior knowledge of this waste stream, and because the liquid had a pH of 13 and flammable properties, the more hazardous determination of flammable liquids was chosen.

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

2. Allegation: Clean Harbors RSC failed to make a proper hazardous waste determination for the purposes of preparation of a land disposal restriction notification form (LDR Form) to be attached to a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

   Response: The land disposal restriction attached to the manifest 000039888MWI with the load listed EPA waste codes D001 for ignitable material as well as D002 for the corrosive characteristic.

3. Allegation: Clean Harbors RSC failed to comply with the Generator's Certification by: a) not fully and accurately describing the proper shipping name of the hazardous waste; b) not fully and accurately classifying, packaging, marking, and labeling/placarding the hazardous waste and its container; and c) not ensuring the hazardous waste and container were in proper condition for transport by highway according to applicable international and national government regulations for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011. Clean Harbors RSC also failed to comply with the Generator's Certification by: a) not properly completing Item 16 International Shipments when it failed as the primary exporter to check the export box, and enter the point of exit (city and state) from the United States; and b) not properly completing Item 9b- U.S. DOT Description (including Proper Shipping Name, Hazard Class, I+B13D Number, and Packaging Group) for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

   Response: At the time of the initial waste determination was made based on initial laboratory analysis, the shipping name chosen was deemed the most appropriate for the material. The marking, labeling/placarding chosen was based solely on the waste determination and shipping description. The waste container was not chosen by Clean Harbors but by the transporter. The condition of the trailer at the time of loading was checked for integrity with regard to closure and seals. Because an aluminum trailer is visually nearly indistinguishable from a stainless steel trailer, and Clean Harbors expected to be loading a stainless steel trailer, there was no question as to the material of construction of the trailer.

   With respect to completing Item 16 on the manifest, Clean Harbors RSC was not the "primary exporter" as that term is defined by the EPA. In the preamble to the August 8, 1986 regulations on exporting hazardous wastes, EPA recognized that multiple parties may be involved in the export process. EPA included in the definition of the "primary exporter" "any intermediary arranging for the export". For this shipment, Clean Harbors Environmental Services, Inc. in Burton, MI was the "primary exporter". The truck was in route to Burton, MI to obtain the required paperwork for export to Canada when the incident occurred.

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

4. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on packaging under 49 CFR Parts 173, 178 and 179, in violation of 35 IAC § 722.130 [40 CFR § 262.30], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), and not UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II

   Response: Clean Harbors RSC recycles organic solvents with multiple hazardous properties. Due to the nature of the recycling process, the final waste can have varying concentrations of both flammable and corrosive constituents. Based on the knowledge of the process and the preliminary analytical information (See attachment 1) the determination was made that the flammable characteristics of the waste took precedence over the corrosive characteristics and the waste was packaged accordingly. It was only after the incident where additional tests were run that contradicted the initial waste analysis.

5. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on labeling under 49 CFR Part 172, in violation of 35 IAC § 722.131 [40 CFR § 262.31], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but labeled the tanker (container) as if UN1983, waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

   Response: Clean Harbors RSC loaded the tanker (container) with material that was analyzed by laboratory analysis No. 111491 as having a percentage of methyl ethyl ketone at 10.53% and a pH of 13. Based on the laboratory analysis, Clean Harbors RSC chose the most appropriate description and label for the material for the known flammable hazard with a flash point of 140 degrees (F) in accordance with 49 CFR 173(2)(a)(8) [Classification of a material having more than one hazard].

6. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on marking under 49 CFR Part 172, in violation of 35 IAC§ 722.132(a) [40 CFR § 62.32(a)], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but marked the tanker (container) as ifUN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

   Response: Clean Harbors RSC loaded the tanker (container) with material that was analyzed by laboratory analysis No. 111491 as having a percentage of methyl ethyl ketone at 10.53% and a pH of 13. Based on the laboratory analysis, Clean Harbors chose the most appropriate description and marking for the material for the known flammable hazard with a flash point of 140 degrees (F) in accordance with 49 CFR 173(2)(a)(8) [Classification of a material having more than one hazard].

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

7. Allegation: Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on placarding under 49 CFR Part 172, Subpart F, in violation of 35 IAC § 722.133 [40 CFR § 262.33], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but placarded the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

   Response: Clean Harbors RSC loaded the tanker (container) with material that was analyzed by laboratory analysis No. 111491 as having a percentage of methyl ethyl ketone at 10.53% and a pH of 13. Based on the laboratory analysis, Clean Harbors chose the most appropriate description and placard for the material for the known flammable hazard with a flash point of 140 degrees (F) in accordance with 49 CFR 173(2)(a)(8) [Classification of a material having more than one hazard].

8. Allegation: Clean Harbors RSC, as the primary exporter who initiated the Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) for shipment of hazardous waste on July 21, 2011, commenced this shipment of a hazardous waste without a current or non-expired EPA acknowledgement of Consent as required and thus failed to comply with 35 IAC §122.153(c) [40 CFR § 262.53(c)].

   Response: Clean Harbors RSC commenced the shipment of waste on manifest 000039888 MWI destined for Corunna, ON Canada but it was not the "primary exporter" as discussed in Allegation No. 3 above. Clean Harbors RSC was transporting the material to Clean Harbors Environmental Services, Inc. in Burton, MI to act as the "primary exporter" to Corunna, ON Canada. The Acknowledgement of Consent and the Canadian Pre-Note Permit were going to be attached to the shipping document in Burton, MI.

9. Allegation: Clean Harbors RSC failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the point of exit (city and state) from the United States in the International Shipments block, and by not attaching an EPA Acknowledgement of Consent as stated in the certification.

   Response: Clean Harbors RSC commenced the shipment of waste on manifest 000039888 MWI destined for Corunna, ON Canada but it was not the "primary exporter" as discussed in Allegation No. 3 above. Clean Harbors RSC was transporting the

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

material to Clean Harbors Environmental Services, Inc. in Burton, MI to act as the "primary exporter" to Corunna, ON Canada. The additional data for the manifest was to be added to the manifest by the "primary exporter" and the Acknowledgement of Consent was to be attached to the manifest in Burton, MI.

10. Allegation: Clean Harbors RSC failed to comply with 35 IAC § 725.272[40 CFR § 266.172], when it placed a hazardous waste of sodium hydroxide solution in an incompatible aluminum container (Tanker Number 678) resulting in the explosion of the container (Tanker Number 678) on July 21, 2011.

    Response: Clean Harbors RSC recycles and recovers organic solvents with various and properties. The facility stores its material in tanks at the facility designed to be safely compatible with the organic materials because these materials have flammable and corrosive properties. When Clean Harbors RSC ships these materials as products or as waste, it does so with the same consideration for safe shipment using compatible containers and tankers. Clean Harbors RSC practice is to ship these materials on stainless steel bulk tankers and the facility would not knowingly ship these materials, products or waste in aluminum or non-compatible tankers or containers. The waste container was not chosen by Clean Harbors but by the transporter.

Clean Harbors RSC would respectfully request that the EPA consider the following mitigating factors when evaluating this incident:

i) **Degree of Culpability** The incident most likely occurred as a result of a reaction of the waste material with the aluminum tanker. The Manifest put the transporter on notice by including a D002 shipping code that indicated that the material was corrosive. The Profile for this waste also included an annotation that this material may contain sodium hydroxide. While Clean Harbors understands its obligations as the generator, Clean Harbors believes the selection of the aluminum tanker by the Transporter was at the very least a contributing factor to the incident.

ii) **Prior History** Clean Harbors Recycling Services of Chicago, LLC has no prior violations for improper closures or failure to use the proper shipping name on a shipping paper.

iii) **Corrective Actions** Clean Harbors promptly investigated the incident and implemented the following changes to our procedures to prevent reoccurrence as a result of the Management Team Investigation (MTI) that was conducted at the time of the incident:

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

Action Item	Status as of 10-19-2012
Review of Intercompany Profiles and In-house profiles	Completed – New bulk profile procedure implemented.
Evaluate Outbound Sales Order Process to narrow the proper DOT shipping name by profile.	Completed – New bulk profile procedure implemented
Create a "checkpoint" at the plant level to ensure load compatibility with respect to the tanker specifications.	Completed – Outbound Shipment Approval process implemented
Develop severity index for improved communications of incidents	In process – third revision with Executive Staff under review.
Modify company profile compatibility based on equipment type.	Completed – New bulk profile procedure implemented
Define and monitor training for all employees who require DOT Hazardous Material training.	Completed – PeopleSoft tracking.
Develop system to segregate bulk from drum profiles	Completed – New bulk profile procedure implemented
Review /amend the company's Crisis Management Plan to include the establishment of an On-Call qualified list of personnel, and creation of a conference call teleconference phone line dedicated to significant emergency response incidents	In process – To be implemented after the severity index is approved
Send letter to transportation vendors for the proper notification for emergency response incidents:	Completed – incorporated into the new waste transportation agreement for transportation vendors

In addition to the corrective actions above, Clean Harbors RSC has initiated additional corrective actions that were identified after the original MTI. To ensure the proper shipping name is selected using the new Bulk Shipping SOP, Clean Harbors developed a report to so we can audit each bulk shipment on a weekly basis. The results of the review and the discipline taken for infractions are distributed to the senior operational executives of the Company weekly.

Clean Harbors RCS requests the opportunity to meet with you and your staff to review the circumstances of this incident and the actions taken to prevent its reoccurrence. Please contact the undersigned with possible dates for a meeting at your convenience. Thank you for your assistance with this matter.

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

Sincerely,

Jeffery D. Haigh

ILD 005450697

RE: Clean Harbors RCRA Notice of Violation
Haigh, Jeffery D
to:
Mark Palermo
09/27/2012 12:37 PM
Cc:
Diane Sharrow
Hide Details
From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA,
Cc: Diane Sharrow/R5/USEPA/US@EPA

Mark,

I am writing to request a thirty (30) day extension to answer the NOV recently received from your agency.

Thank you for your anticipated cooperation, as well as the courtesy copy you had sent.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

CH Logo_RED_rgb

From: Mark Palermo [mailto:Palermo.Mark@epamail.epa.gov]
Sent: Thursday, September 13, 2012 4:56 PM
To: Haigh, Jeffery D
Cc: Diane Sharrow
Subject: Clean Harbors RCRA Notice of Violation

Jeffery: Please see the attached NOV that was mailed to Clean Harbors today.

I know you had proposed a meeting to discuss this matter. We are willing to meet with Clean Harbors to discuss the violations alleged in this NOV and establish a path forward to reach settlement between Clean Harbors and EPA in this matter. Please let us know and we will work with you to set the date for the meeting.

Thank you,

Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

(See attached file: cleanharbors_RCRANOV_final_0912.pdf)

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

RE: Clean Harbors RCRA Notice of Violation

Mark Palermo to: Haigh, Jeffery D 09/27/2012 02:57 PM
Cc: Diane Sharrow

From: Mark Palermo/R5/USEPA/US
To: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>,
Cc: Diane Sharrow/R5/USEPA/US@EPA

Jeff:

Clean Harbor's response to the NOV submitted to EPA by October 19, 2012 would be acceptable by EPA.

Thank you,

Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

"Haigh, Jeffery D" Mark, I am writing to request a thirty (30) day ext... 09/27/2012 12:37:57 PM

From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA,
Cc: Diane Sharrow/R5/USEPA/US@EPA
Date: 09/27/2012 12:37 PM
Subject: RE: Clean Harbors RCRA Notice of Violation

Mark,

I am writing to request a thirty (30) day extension to answer the NOV recently received from your agency.

Thank you for your anticipated cooperation, as well as the courtesy copy you had sent.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com

Web: www.cleanharbors.com

From: Mark Palermo [mailto:Palermo.Mark@epamail.epa.gov]
Sent: Thursday, September 13, 2012 4:56 PM
To: Haigh, Jeffery D
Cc: Diane Sharrow
Subject: Clean Harbors RCRA Notice of Violation

Jeffery: Please see the attached NOV that was mailed to Clean Harbors today.

I know you had proposed a meeting to discuss this matter. We are willing to meet with Clean Harbors to discuss the violations alleged in this NOV and establish a path forward to reach settlement between Clean Harbors and EPA in this matter. Please let us know and we will work with you to set the date for the meeting.

Thank you,

Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

(See attached file: cleanharbors_RCRANOV_final_0912.pdf)

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

```
********************** ATTACHMENT NOT DELIVERED
******************

This Email message contained an attachment named
  image001.jpg
which may be a computer program. This attached computer program
could
contain a computer virus which could cause harm to EPA's
computers,
network, and data.  The attachment has been deleted.

This was done to limit the distribution of computer viruses
introduced
```

into the EPA network. EPA is deleting all computer program attachments
sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you
should contact the sender and request that they rename the file name
extension and resend the Email with the renamed attachment. After
receiving the revised Email, containing the renamed attachment, you can
rename the file extension to its correct name.

For further information, please contact the EPA Call Center at
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED
****

ILD 005450 697

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 13 2012

REPLY TO THE ATTENTION OF:

LR-8J

CERTIFIED MAIL 7009 1680 0000 7660 5984
RETURN RECEIPT REQUESTED

Mr. Jeffery D. Haigh
Attorney
Clean Harbors
42 Longwater Drive
Post Office Box 9149
Norwell, Massachusetts 02061-9149

Mr. Gary Malinowski
Facility Manager
Recycling Services Center
Clean Harbors
1445 West 42nd Street
Chicago, Illinois 60609

Re: Notice of Violation
Clean Harbors Recycling Services Center
EPA ID: ILD 005 450 697

Dear Messrs. Haigh and Malinowski:

On July 21, 2012, a tanker trailer transporting hazardous waste manifested from the Clean Harbors Recycling Services Center (Clean Harbors RSC) in Chicago, Illinois to Ontario, Canada, exploded near Sawyer, Michigan. The U. S. Environmental Protection Agency has reviewed and evaluated the circumstances surrounding this explosion in order to determine Clean Harbors RSC's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, treatment, storage, transport and disposal of hazardous waste.

EPA based its review on Region 5 information and records regarding Clean Harbors RSC as well as information and records provided by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration. We also based our review on information and records provided by the Illinois Environmental Protection Agency (Illinois EPA), the Michigan

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

Department of Environmental Quality (Michigan DEQ), the law firm of Garan Lucow Miller PC on behalf of Harold Marcus Limited, as well as Clean Harbors RSC's response to EPA's November 14, 2011, and May 10, 2012, Requests for Information.

Based on this review and evaluation, EPA finds that Clean Harbors RSC violated the requirements of Title 35 of the Illinois Administrative Code (35 IAC), Sections 3001-3023 of RCRA, 42 U.S.C. §§ 6921-6939(e), and Title 40 of the United States Code of Federal Regulations (40 CFR), Parts 260-279.

Specifically, we find that Clean Harbors RSC violated or did not comply with the following requirements:

1. A person who generates a solid waste as defined in 35 IAC § 721.22 [40 CFR § 261.2], must determine if that waste is a hazardous waste. See 35 IAC § 722.111 [40 CFR § 262.11]. Clean Harbors RSC failed to make a proper waste determination for the purposes of preparing a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it specified, "WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), when it actually placed a Sodium Hydroxide Solution (see Clean Harbors RSC Analytical Report Number 111572 dated July 21, 2011) in the tanker (container).

2. A large quantity generator of hazardous waste must determine if the waste is a hazardous waste for purposes of compliance with the land disposal restrictions under 35 IAC § 728.107 [40 CFR § 268.7]. See 35 IAC § 722.111(c) [40 CFR § 262.11(c)]. Clean Harbors RSC failed to make a proper hazardous waste determination for the purposes of preparation of a land disposal restriction notification form (LDR Form) to be attached to a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it did not correctly identify the hazardous waste actually placed in the tanker (container) on the LDR Form.

3. A generator who transports, or offers for transport a hazardous waste for offsite treatment, storage or disposal, must accurately prepare a Uniform Hazardous Waste Manifest on EPA Form 8700-22, according to instructions included in the Appendix to Part 262 – Uniform Hazardous Waste Manifest and Instructions (EPA forms 8700-22). See 35 IAC § 722.120(a) (1) [40 CFR § 262.20(a) (1)]. EPA Form 8700-22 requires a certification by the generator in Item 15. The Generator's Certification contains a required attestation that the shipment has been properly prepared and is in proper condition for transportation. The content of the shipper's certification statement is as follows:

"I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects proper condition for transport by highway according to applicable international and national government regulations. If export shipment and I am the primary exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgement of Consent."

Clean Harbors RSC failed to comply with the Generator's Certification by: a) not fully and accurately describing the proper shipping name of the hazardous waste; b) not fully and accurately classifying, packaging, marking, and labeling/placarding the hazardous waste and its container; and c) not ensuring the hazardous waste and container were in proper condition for transport by highway according to applicable international and national government regulations for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

Clean Harbors RSC also failed to comply with the Generator's Certification by: a) not properly completing Item 16 - International Shipments when it failed as the primary exporter to check the export box, and enter the point of exit (city and state) from the United States; and b) not properly completing Item 9b – U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packaging Group) for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

4. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for packaging. See 35 IAC § 722.130 [40 CFR §§ 262.30]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on packaging under 49 CFR Parts 173, 178 and 179, in violation of 35 IAC § 722.130 [40 CFR § 262.30], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), and not UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II,.

5. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for labeling. See 35 IAC § 722.131 [40 CFR §§ 262.31]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on labeling under 49 CFR Part 172, in violation of 35 IAC § 722.131 [40 CFR § 262.31], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but labeled the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

6. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for marking. See 35 IAC § 722.132(a) [40 CFR §§ 262.32(a)]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on marking under 49 CFR Part 172, in violation of 35 IAC § 722.132(a) [40 CFR § 262.32(a)], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but marked the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

7. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for placarding. See 35 IAC § 722.133 [40 CFR §§ 262.33]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on placarding under 49 CFR Part 172, Subpart F, in violation of 35 IAC § 722.133 [40 CFR § 262.33], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but placarded the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

8. Prior to exporting hazardous waste, the primary exporter must notify EPA of their intent to export. The primary exporter is defined in 35 IAC § 722.151 [40 CFR § 262.51] as any person who is required to originate the manifest for shipment of hazardous waste in accordance with 40 CFR Part 262, Subpart B, or equivalent State provision, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export. Sixty days prior to exporting a hazardous waste to a foreign facility, the primary exporter must send a notification of intent to export to EPA. EPA then notifies the receiving country and once the receiving country consents to the shipment, EPA forwards an Acknowledgement of Consent to the primary exporter and the hazardous waste shipment can commence. Clean Harbors RSC, as the primary exporter who initiated the Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) for shipment of hazardous waste on July 21, 2011, commenced this shipment of a hazardous waste without a current or non-expired EPA Acknowledgement of Consent as required and thus failed to comply with 35 IAC §122.153(c) [40 CFR § 262.53(c)].

9. A primary exporter must comply with the Uniform Hazardous Waste Manifest requirements of 40 CFR 262.20 through 262.23 except that: a) in the International Shipments block, the primary exporter must check the export box and enter the point of exit (city and state) from the United States (See 35 IAC § 722.154(c) [40 CFR § 262.54(c)]); and b) the following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgement of Consent." See 35 IAC § 722.154(d) [40 CFR § 262.54(d)]. Clean Harbors RSC failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the point of exit (city and state) from the United States in the International Shipments block, and by not attaching an EPA Acknowledgement of Consent as stated in the certification.

10. A large quantity generator of hazardous waste must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. See 35 IAC § 725.272 [40 CFR § 266.172]. "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device because it may cause corrosion or decay of containment materials. See 35 IAC § 720.110 [40 CFR § 260.10]. "Container" means any device in which material (including hazardous waste) is transported or otherwise handled. See 35 IAC § 720.110 [40 CFR § 260.10]. Clean Harbors RSC failed to comply with 35 IAC § 725.272

[40 CFR § 266.172], when it placed a hazardous waste of sodium hydroxide solution in an incompatible aluminum container (Tanker Number 678) resulting in the explosion of the container (Tanker Number 678) on July 21, 2011.

Under Section 3008(a) of the RCRA, EPA may issue an order assessing a civil penalty for any past or current violation and requiring compliance immediately or within a specified time period. Although this letter is not such an order, we request that you submit a response in writing to this office no later than fifteen (15) business days after receipt of this letter documenting the actions, if any, which have been taken to establish compliance as well as prevent the reoccurrence of the violations.

However, please be advised that Clean Harbors RSC's actions will not relieve Clean Harbors RSC of its liability for the violations identified in this letter. EPA reserves the right to bring further enforcement actions (including an action for civil penalties) against Clean Harbors RSC for all violations.

You should submit your response to Diane Sharrow, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, LR-8J, Chicago, Illinois 60604. If you have any questions regarding this letter, please contact Ms. Sharrow, of my staff, at (312) 886-6199, or Mark Palermo, of the Office of Regional Counsel, at (312) 886-6082.

Sincerely,

for Gary Victorine, Chief
RCRA Branch

cc: Todd.Marvel@illinois.gov
CraigJ@michigan.gov

ILD 005450 697

Clean Harbors RCRA Notice of Violation

Mark Palermo to: Haigh, Jeffery D 09/13/2012 03:56 PM

Cc: Diane Sharrow

From: Mark Palermo/R5/USEPA/US

To: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>,

Cc: Diane Sharrow/R5/USEPA/US@EPA

Jeffery: Please see the attached NOV that was mailed to Clean Harbors today.

I know you had proposed a meeting to discuss this matter. We are willing to meet with Clean Harbors to discuss the violations alleged in this NOV and establish a path forward to reach settlement between Clean Harbors and EPA in this matter. Please let us know and we will work with you to set the date for the meeting.

Thank you,

Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

cleanharbors_RCRANOV_final_0912.pdf

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 13 2012

REPLY TO THE ATTENTION OF

LR-8J

CERTIFIED MAIL 7009 1680 0000 7660 5984
RETURN RECEIPT REQUESTED

Mr. Jeffery D. Haigh
Attorney
Clean Harbors
42 Longwater Drive
Post Office Box 9149
Norwell, Massachusetts 02061-9149

Mr. Gary Malinowski
Facility Manager
Recycling Services Center
Clean Harbors
1445 West 42nd Street
Chicago, Illinois 60609

Re: Notice of Violation
Clean Harbors Recycling Services Center
EPA ID: ILD 005 450 697

Dear Messrs. Haigh and Malinowski:

On July 21, 2012, a tanker trailer transporting hazardous waste manifested from the Clean Harbors Recycling Services Center (Clean Harbors RSC) in Chicago, Illinois to Ontario, Canada, exploded near Sawyer, Michigan. The U. S. Environmental Protection Agency has reviewed and evaluated the circumstances surrounding this explosion in order to determine Clean Harbors RSC's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, treatment, storage, transport and disposal of hazardous waste.

EPA based its review on Region 5 information and records regarding Clean Harbors RSC as well as information and records provided by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration. We also based our review on information and records provided by the Illinois Environmental Protection Agency (Illinois EPA), the Michigan

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

Department of Environmental Quality (Michigan DEQ), the law firm of Garan Lucow Miller PC on behalf of Harold Marcus Limited, as well as Clean Harbors RSC's response to EPA's November 14, 2011, and May 10, 2012, Requests for Information.

Based on this review and evaluation, EPA finds that Clean Harbors RSC violated the requirements of Title 35 of the Illinois Administrative Code (35 IAC), Sections 3001-3023 of RCRA, 42 U.S.C. §§ 6921-6939(e), and Title 40 of the United States Code of Federal Regulations (40 CFR), Parts 260-279.

Specifically, we find that Clean Harbors RSC violated or did not comply with the following requirements:

1. A person who generates a solid waste as defined in 35 IAC § 721.22 [40 CFR § 261.2], must determine if that waste is a hazardous waste. See 35 IAC § 722.111 [40 CFR § 262.11]. Clean Harbors RSC failed to make a proper waste determination for the purposes of preparing a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it specified, "WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), when it actually placed a Sodium Hydroxide Solution (see Clean Harbors RSC Analytical Report Number 111572 dated July 21, 2011) in the tanker (container).

2. A large quantity generator of hazardous waste must determine if the waste is a hazardous waste for purposes of compliance with the land disposal restrictions under 35 IAC § 728.107 [40 CFR § 268.7]. See 35 IAC § 722.111(c) [40 CFR § 262.11(c)]. Clean Harbors RSC failed to make a proper hazardous waste determination for the purposes of preparation of a land disposal restriction notification form (LDR Form) to be attached to a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it did not correctly identify the hazardous waste actually placed in the tanker (container) on the LDR Form.

3. A generator who transports, or offers for transport a hazardous waste for offsite treatment, storage or disposal, must accurately prepare a Uniform Hazardous Waste Manifest on EPA Form 8700-22, according to instructions included in the Appendix to Part 262 – Uniform Hazardous Waste Manifest and Instructions (EPA forms 8700-22). See 35 IAC § 722.120(a) (1) [40 CFR § 262.20(a) (1)]. EPA Form 8700-22 requires a certification by the generator in Item 15. The Generator's Certification contains a required attestation that the shipment has been properly prepared and is in proper condition for transportation. The content of the shipper's certification statement is as follows:

"I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects proper condition for transport by highway according to applicable international and national government regulations. If export shipment and I am the primary exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgement of Consent."

Clean Harbors RSC failed to comply with the Generator's Certification by: a) not fully and accurately describing the proper shipping name of the hazardous waste; b) not fully and accurately classifying, packaging, marking, and labeling/placarding the hazardous waste and its container; and c) not ensuring the hazardous waste and container were in proper condition for transport by highway according to applicable international and national government regulations for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

Clean Harbors RSC also failed to comply with the Generator's Certification by: a) not properly completing Item 16 - International Shipments when it failed as the primary exporter to check the export box, and enter the point of exit (city and state) from the United States; and b) not properly completing Item 9b – U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packaging Group) for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

4. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for packaging. See 35 IAC § 722.130 [40 CFR §§ 262.30]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on packaging under 49 CFR Parts 173, 178 and 179, in violation of 35 IAC § 722.130 [40 CFR § 262.30], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), and not UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II,.

5. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for labeling. See 35 IAC § 722.131 [40 CFR §§ 262.31]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on labeling under 49 CFR Part 172, in violation of 35 IAC § 722.131 [40 CFR § 262.31], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but labeled the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

6. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for marking. See 35 IAC § 722.132(a) [40 CFR §§ 262.32(a)]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on marking under 49 CFR Part 172, in violation of 35 IAC § 722.132(a) [40 CFR § 262.32(a)], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but marked the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

7. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for placarding. See 35 IAC § 722.133 [40 CFR §§ 262.33]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on placarding under 49 CFR Part 172, Subpart F, in violation of 35 IAC § 722.133 [40 CFR § 262.33], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but placarded the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

8. Prior to exporting hazardous waste, the primary exporter must notify EPA of their intent to export. The primary exporter is defined in 35 IAC § 722.151 [40 CFR § 262.51] as any person who is required to originate the manifest for shipment of hazardous waste in accordance with 40 CFR Part 262, Subpart B, or equivalent State provision, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export. Sixty days prior to exporting a hazardous waste to a foreign facility, the primary exporter must send a notification of intent to export to EPA. EPA then notifies the receiving country and once the receiving country consents to the shipment, EPA forwards an Acknowledgement of Consent to the primary exporter and the hazardous waste shipment can commence. Clean Harbors RSC, as the primary exporter who initiated the Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) for shipment of hazardous waste on July 21, 2011, commenced this shipment of a hazardous waste without a current or non-expired EPA Acknowledgement of Consent as required and thus failed to comply with 35 IAC §122.153(c) [40 CFR § 262.53(c)].

9. A primary exporter must comply with the Uniform Hazardous Waste Manifest requirements of 40 CFR 262.20 through 262.23 except that: a) in the International Shipments block, the primary exporter must check the export box and enter the point of exit (city and state) from the United States (See 35 IAC § 722.154(c) [40 CFR § 262.54(c)]); and b) the following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgement of Consent." See 35 IAC § 722.154(d) [40 CFR § 262.54(d)]. Clean Harbors RSC failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the point of exit (city and state) from the United States in the International Shipments block, and by not attaching an EPA Acknowledgement of Consent as stated in the certification.

10. A large quantity generator of hazardous waste must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. See 35 IAC § 725.272 [40 CFR § 266.172]. "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device because it may cause corrosion or decay of containment materials. See 35 IAC § 720.110 [40 CFR § 260.10]. "Container" means any device in which material (including hazardous waste) is transported or otherwise handled. See 35 IAC § 720.110 [40 CFR § 260.10]. Clean Harbors RSC failed to comply with 35 IAC § 725.272

[40 CFR § 266.172], when it placed a hazardous waste of sodium hydroxide solution in an incompatible aluminum container (Tanker Number 678) resulting in the explosion of the container (Tanker Number 678) on July 21, 2011.

Under Section 3008(a) of the RCRA, EPA may issue an order assessing a civil penalty for any past or current violation and requiring compliance immediately or within a specified time period. Although this letter is not such an order, we request that you submit a response in writing to this office no later than fifteen (15) business days after receipt of this letter documenting the actions, if any, which have been taken to establish compliance as well as prevent the reoccurrence of the violations.

However, please be advised that Clean Harbors RSC's actions will not relieve Clean Harbors RSC of its liability for the violations identified in this letter. EPA reserves the right to bring further enforcement actions (including an action for civil penalties) against Clean Harbors RSC for all violations.

You should submit your response to Diane Sharrow, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, LR-8J, Chicago, Illinois 60604. If you have any questions regarding this letter, please contact Ms. Sharrow, of my staff, at (312) 886-6199, or Mark Palermo, of the Office of Regional Counsel, at (312) 886-6082.

Sincerely,

for Gary Victorine, Chief
RCRA Branch

cc: Todd.Marvel@illinois.gov
CraigJ@michigan.gov

ILD 005 450 697

Enforcement Action Communication-Clean Harbors Recycling Services Center (NOV)

Lorna Jereza to: Dennis.McMurray, Todd.Marvel, John.J.Kim, Maggie.Carson, Paul.Purseglove, CraigJ 09/10/2012 04:25 PM

Cc: Diane Sharrow, Gary Victorine

From: Lorna Jereza/R5/USEPA/US

To: Dennis.McMurray@illinois.gov, Todd.Marvel@illinois.gov, John.J.Kim@illinois.gov, Maggie.Carson@illinois.gov, Paul.Purseglove@illinois.gov, CraigJ@michigan.gov,

Cc: Diane Sharrow/R5/USEPA/US@EPA, Gary Victorine/R5/USEPA/US@EPA

History: This message has been forwarded.

This is to inform you that on September 12, 2012, U.S. EPA will send by certified mail, the attached notice of violation (NOV) to Clean Harbors Recycling Services Center (CHRSC) located in Chicago, Illinois. The alleged violations are based on the circumstances surrounding the explosion of a tanker trailer transporting hazardous waste manifested from CHRSC to Ontario, Canada.

Contact: Diane Sharrow (312) 886-6199

20120910154341684.pdf

Lorna M. Jereza, Chief
Compliance Section 1
RCRA Branch
Land and Chemicals Division (LR-8J)
U.S. EPA, Region 5, Chicago
Telephone: (312) 353-5110
Facsimile: (312) 385-5519

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LR-8J

CERTIFIED MAIL 7009 1680 0000 7660 5984
RETURN RECEIPT REQUESTED

Mr. Jeffery D. Haigh
Attorney
Clean Harbors
42 Longwater Drive
Post Office Box 9149
Norwell, Massachusetts 02061-9149

Mr. Gary Malinowski
Facility Manager
Recycling Services Center
Clean Harbors
1445 West 42nd Street
Chicago, Illinois 60609

Re: Notice of Violation
Clean Harbors Recycling Services Center
EPA ID: ILD 005 450 697

Dear Messrs. Haigh and Malinowski:

On July 21, 2012, a tanker trailer transporting hazardous waste manifested from the Clean Harbors Recycling Services Center (Clean Harbors RSC) in Chicago, Illinois to Ontario, Canada, exploded near Sawyer, Michigan. The U. S. Environmental Protection Agency has reviewed and evaluated the circumstances surrounding this explosion in order to determine Clean Harbors RSC's compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the generation, treatment, storage, transport and disposal of hazardous waste.

EPA based its review on Region 5 information and records regarding Clean Harbors RSC as well as information and records provided by the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration. We also based our review on information and records provided by the Illinois Environmental Protection Agency (Illinois EPA), the Michigan

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (60% Postconsumer)

Department of Environmental Quality (Michigan DEQ), the law firm of Garan Lucow Miller PC on behalf of Harold Marcus Limited, as well as Clean Harbors RSC's response to EPA's November 14, 2011, and May 10, 2012, Requests for Information.

Based on this review and evaluation, EPA finds that Clean Harbors RSC violated the requirements of Title 35 of the Illinois Administrative Code (35 IAC), Sections 3001-3023 of RCRA, 42 U.S.C. §§ 6921-6939(e), and Title 40 of the United States Code of Federal Regulations (40 CFR), Parts 260-279.

Specifically, we find that Clean Harbors RSC violated or did not comply with the following requirements:

1. A person who generates a solid waste as defined in 35 IAC § 721.22 [40 CFR § 261.2], must determine if that waste is a hazardous waste. See 35 IAC § 722.111 [40 CFR § 262.11]. Clean Harbors RSC failed to make a proper waste determination for the purposes of preparing a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it specified, "WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), when it actually placed a Sodium Hydroxide Solution (see Clean Harbors RSC Analytical Report Number 111572 dated July 21, 2011) in the tanker (container).

2. A large quantity generator of hazardous waste must determine if the waste is a hazardous waste for purposes of compliance with the land disposal restrictions under 35 IAC § 728.107 [40 CFR § 268.7]. See 35 IAC § 722.111(c) [40 CFR § 262.11(c)]. Clean Harbors RSC failed to make a proper hazardous waste determination for the purposes of preparation of a land disposal restriction notification form (LDR Form) to be attached to a Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, when it did not correctly identify the hazardous waste actually placed in the tanker (container) on the LDR Form.

3. A generator who transports, or offers for transport a hazardous waste for offsite treatment, storage or disposal, must accurately prepare a Uniform Hazardous Waste Manifest on EPA Form 8700-22, according to instructions included in the Appendix to Part 262 – Uniform Hazardous Waste Manifest and Instructions (EPA forms 8700-22). See 35 IAC § 722.120(a) (1) [40 CFR § 262.20(a) (1)]. EPA Form 8700-22 requires a certification by the generator in Item 15. The Generator's Certification contains a required attestation that the shipment has been properly prepared and is in proper condition for transportation. The content of the shipper's certification statement is as follows:

"I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labeled/placarded, and are in all respects proper condition for transport by highway according to applicable international and national government regulations. If export shipment and I am the primary exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgement of Consent."

Clean Harbors RSC failed to comply with the Generator's Certification by: a) not fully and accurately describing the proper shipping name of the hazardous waste; b) not fully and accurately classifying, packaging, marking, and labeling/placarding the hazardous waste and its container; and c) not ensuring the hazardous waste and container were in proper condition for transport by highway according to applicable international and national government regulations for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

Clean Harbors RSC also failed to comply with the Generator's Certification by: a) not properly completing Item 16 - International Shipments when it failed as the primary exporter to check the export box, and enter the point of exit (city and state) from the United States; and b) not properly completing Item 9b – U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packaging Group) for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011.

4. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for packaging. See 35 IAC § 722.130 [40 CFR §§ 262.30]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on packaging under 49 CFR Parts 173, 178 and 179, in violation of 35 IAC § 722.130 [40 CFR § 262.30], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), and not UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II,.

5. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for labeling. See 35 IAC § 722.131 [40 CFR §§ 262.31]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on labeling under 49 CFR Part 172, in violation of 35 IAC § 722.131 [40 CFR § 262.31], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but labeled the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

6. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for marking. See 35 IAC § 722.132(a) [40 CFR §§ 262.32(a)]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on marking under 49 CFR Part 172, in violation of 35 IAC § 722.132(a) [40 CFR § 262.32(a)], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but marked the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

7. Before offering hazardous waste for transportation offsite, a generator must comply with the pre-transport requirements for placarding. See 35 IAC § 722.133 [40 CFR §§ 262.33]. Clean Harbors RSC failed to comply with the applicable U.S. DOT regulations on placarding under 49 CFR Part 172, Subpart F, in violation of 35 IAC § 722.133 [40 CFR § 262.33], when it placed UN1824 Sodium Hydroxide Solution, 8, PG II or III, in the tanker (container), but placarded the tanker (container) as if UN1983, Waste Flammable Liquids, N.O.S., (Methyl Ethyl Ketone), 3, PG II, had been placed in the tanker (container).

8. Prior to exporting hazardous waste, the primary exporter must notify EPA of their intent to export. The primary exporter is defined in 35 IAC § 722.151 [40 CFR § 262.51] as any person who is required to originate the manifest for shipment of hazardous waste in accordance with 40 CFR Part 262, Subpart B, or equivalent State provision, which specifies a treatment, storage, or disposal facility in a receiving country as the facility to which the hazardous waste will be sent and any intermediary arranging for the export. Sixty days prior to exporting a hazardous waste to a foreign facility, the primary exporter must send a notification of intent to export to EPA. EPA then notifies the receiving country and once the receiving country consents to the shipment, EPA forwards an Acknowledgement of Consent to the primary exporter and the hazardous waste shipment can commence. Clean Harbors RSC, as the primary exporter who initiated the Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) for shipment of hazardous waste on July 21, 2011, commenced this shipment of a hazardous waste without a current or non-expired EPA Acknowledgement of Consent as required and thus failed to comply with 35 IAC §122.153(c) [40 CFR § 262.53(c)].

9. A primary exporter must comply with the Uniform Hazardous Waste Manifest requirements of 40 CFR 262.20 through 262.23 except that: a) in the International Shipments block, the primary exporter must check the export box and enter the point of exit (city and state) from the United States (See 35 IAC § 722.154(c) [40 CFR § 262.54(c)]); and b) the following statement must be added to the end of the first sentence of the certification set forth in Item 16 of the Uniform Hazardous Waste Manifest Form: "and conforms to the terms of the attached EPA Acknowledgement of Consent." See 35 IAC § 722.154(d) [40 CFR § 262.54(d)]. Clean Harbors RSC failed to comply with the special manifest requirements of 35 IAC §§ 722.154(c) and (d) [40 CFR §§ 262.54(c) and (d)], for Uniform Hazardous Waste Manifest (Manifest Tracking Number 000039888 MWI) on July 21, 2011, by not checking the export box and entering the point of exit (city and state) from the United States in the International Shipments block, and by not attaching an EPA Acknowledgement of Consent as stated in the certification.

10. A large quantity generator of hazardous waste must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. See 35 IAC § 725.272 [40 CFR § 266.172]. "Incompatible waste" means a hazardous waste which is unsuitable for placement in a particular device because it may cause corrosion or decay of containment materials. See 35 IAC § 720.110 [40 CFR § 260.10]. "Container" means any device in which material (including hazardous waste) is transported or otherwise handled. See 35 IAC § 720.110 [40 CFR § 260.10]. Clean Harbors RSC failed to comply with 35 IAC § 725.272

[40 CFR § 266.172], when it placed a hazardous waste of sodium hydroxide solution in an incompatible aluminum container (Tanker Number 678) resulting in the explosion of the container (Tanker Number 678) on July 21, 2011.

Under Section 3008(a) of the RCRA, EPA may issue an order assessing a civil penalty for any past or current violation and requiring compliance immediately or within a specified time period. Although this letter is not such an order, we request that you submit a response in writing to this office no later than fifteen (15) business days after receipt of this letter documenting the actions, if any, which have been taken to establish compliance as well as prevent the reoccurrence of the violations.

However, please be advised that Clean Harbors RSC's actions will not relieve Clean Harbors RSC of its liability for the violations identified in this letter. EPA reserves the right to bring further enforcement actions (including an action for civil penalties) against Clean Harbors RSC for all violations.

You should submit your response to Diane Sharrow, United States Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, LR-8J, Chicago, Illinois 60604. If you have any questions regarding this letter, please contact Ms. Sharrow, of my staff, at (312) 886-6199, or Mark Palermo, of the Office of Regional Counsel, at (312) 886-6082.

Sincerely,

for Gary Victorine, Chief
RCRA Branch

cc: Todd.Marvel@illinois.gov
CraigJ@michigan.gov

ILD 005450 697

Michigan Department of Environmental Quality
News Release

Aug. 28, 2012 12-0828

For More Information Kameron Jordan, 269-567-3565, jordank@michigan.gov
Brad Wurfel, 517-373-7917, wurfelb@michigan.gov

DEQ settles on Sawyer truck explosion

The DEQ today announced settlement with a Chicago company whose truck and chemical cargo exploded in a Sawyer truck stop last year.

The Administrative Consent Order with Clean Harbors Recycling Services of Chicago, LLC addresses violations associated with the tanker truck explosion at the Travelcenter of America truck stop, located on Sawyer Road off Exit 12 of I-94 in Chikaming Township.

More than 4,000 gallons of hazardous waste with a pH of 13 was being transported from Chicago to Canada with a stop in Sawyer, Michigan, when the tanker truck exploded and released a portion of its contents into storm drains that empty into Sawyer Creek, a tributary to Lake Michigan. The incident was captured on video and posted to YouTube here:

http://www.youtube.com/watch?v=jDbqCwfaFM0

No injuries were reported from the explosion, but the chemical release killed fish in Sawyer Creek, caused temporary closure of the swimming beach at nearby Warren Dunes State Park, and required response from DEQ staff and local emergency responders to monitor site conditions for three days and nights.

Under the terms of the Administrative Consent Order, Clean Harbors Recycling Services will pay a $25,000 civil fine; reimburse the DEQ $38,000 for costs incurred in responding to the explosion; and pay $37,000 in natural resources damages resulting from the fish kill and lost revenue due to closure of the Warren Dunes State Park beach.

####

ILD 005450697

U.S. Department
of Transportation

Pipeline and Hazardous Materials Safety Administration

Office of
Chief Counsel

1200 New Jersey Avenue, S.E.
East Building, 2nd Floor (PHC-10)
Washington, D.C. 20590-0001
Phone: (202) 366-4400
Fax: (202) 366-7041
E-mail: shawn.wolsey@dot.gov

Hazardous Materials Safety Law Division

NOTICE OF PROBABLE VIOLATION

PHMSA Case No. 11-0238-STT-CE

Date Issued: FEB 24 2012

Respondent: Clean Harbors Environmental Services,
1445 West 42nd Street
Chicago, Illinois 60609
ATTN: Alfred Aghapour, General Manager

No. of Alleged Violations: 3

Total Proposed Assessment: $120,200 (after a $1,700 increase for Respondent's prior violations and a $0 reduction for corrective actions)

The Office of Chief Counsel of the Pipeline and Hazardous Materials Safety Administration (PHMSA) alleges that you have violated certain provisions of the Federal hazardous materials transportation law, 49 U.S.C. § 5101 et seq., and/or the Hazardous Materials Regulations (HMR), 49 C.F.R. Parts 171-180. PHMSA sets forth the specific allegations in Addendum A to this Notice.

What are the maximum and minimum civil penalties that PHMSA can assess? Federal law sets a civil penalty of not more than $55,000 and a civil penalty of not less than $250 for each violation of the Federal Hazardous Materials Transportation Law or the (49 U.S.C. § 5123(a)(1)). Furthermore, if a person's violation of the HMR "results in death, serious illness, or severe injury . . . or substantial destruction of property" the maximum civil penalty is $110,000 (49 U.S.C. § 5123(a)(2)); and if the violation concerns training the minimum civil penalty is $495 (49 U.S.C. § 5123(a)(3). Each day of a continuing violation constitutes a separate violation for which the maximum penalty may be imposed (49 U.S.C. § 5123(a)(4)).

What factors does PHMSA consider when proposing and assessing a civil penalty? Federal law requires PHMSA to consider certain factors when proposing and assessing a civil penalty for a

violation of Federal hazardous materials transportation law or the HMR. Please refer to Addendum B to this Notice for more information concerning these factors, which include corrective actions you take to attain and ensure compliance with the HMR.

How do I respond? You may respond to this Notice in any of three ways:

(1) pay the proposed assessment;
(2) send an informal response, which can include a request for an informal conference; or
(3) request a formal hearing.

Details on these three options are provided in Addendum B to this Notice and also on the home page of PHMSA's Office of Hazardous Materials Safety (go to http://www.phmsa.dot.gov/hazmat/enforcement). PHMSA explains its procedures for assessing civil penalties and imposing compliance orders in 49 C.F.R. § 107.307 through 107.331.

When is my response due? You must respond within thirty (30) days from the date that you receive the Notice (49 C.F.R. § 107.313(a)). You are encouraged to submit your response by e-mail or fax when possible. I may extend the 30-day period for your response if you ask for an extension, and show good cause, within the original 30-day period (49 C.F.R. §107.313(c)).

What happens if I fail to respond? You waive your right to contest the allegations made in Addendum A to this Notice if you fail to respond within thirty (30) days of receiving it (or by the end of any extension). In that event, the Chief Counsel may find that you committed the violation(s) alleged in this Notice and assess an appropriate civil penalty.

The Case Exhibits have been supplied to you on a Compact Disk in a PDF format. If receiving this CD in electronic format creates an undue hardship for you, please contact the attorney listed below.

Shawn C. Wolsey, Attorney

Enclosures: Addendum A
Addendum B
Addendum C
Case Exhibits on Compact Disk

cc (w/o Case Exhibits):

Clean Harbors Environmental Services
42 Longwater Drive
Norwell, Massachusetts 02061
Attn: Alan McKim, President

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

SPECIFIC ALLEGATIONS

General Factual Allegations/Averments

1. After an incident involving Respondent on July 21, 2011, PHMSA's Investigator observed photographs of the remains of the vehicle in which a shipment of UN1993, Waste flammable liquid, n.o.s. (Methyl Ethyl Ketone), 3, PGII was made and reviewed records of shipments, hazmat employee training, chemical analysis reports, and package test reports during an inspection at Respondent's facility on July 27th and 28th, 2011,. The PHMSA Investigator also reviewed a video of the explosion of the tanker.

2. Respondent provided the PHMSA Investigator the following documents:

a. Hazardous Materials Registration 070811 550 009TV, issued 7/8/11 and expires 6/30/14.

b. The following Uniform Hazardous Waste Manifests:

i. 000039888 MWI, 7/21/11, one tanker truck, #678, with 4,600 Gallons of UN1993, Waste flammable liquids, n.o.s., (Methyl Ethyl Ketone), 3, PGII;

ii. 000039855 MWI, 4/28/11, 12 drums, truck 568989, with 660 Gallons of UN1993, Waste flammable liquids, n.o.s., (Tetrahydrofuran), 3, PGII;

iii. 000039868 MWI, 6/1/11, 12 drums, truck 5391, with 660 Gallons of UN1993, Waste flammable liquids, n.o.s., (Tetrahydrofuran), 3, PGII;

iv. 000039880 MWI, 6/28/11, 6 drums, trailer 6142, with 330 Gallons of UN1993, Waste flammable liquids, n.o.s., (Tetrahydrofuran), 3, PGII.

c. The following Bills of Lading:

i. 341813, 11/27/10, for 10 totes, 2,625 Gallons (19,110 lbs.) of UN2052, Dipentene, 3, PGIII;

ii. 34196, 3/17/11, for 5 totes, 1,200 Gallons (8,700 lbs.) of UN2052, Dipentene, 3, PGIII;

iii. 342019, 7/13/11, for 7 totes, 2,000 Gallons (16,655 lbs.) of UN1198, Methyl Ethyl Ketone, 3, PGII.

d. The following Material Safety Data Sheets:

i. UN2052, Dipentene, 3, PGIII, material name: Daiken Terpene, 9/29/10, prepared by Respondent;

ii. UN1198, Methyl Ethyl Ketone, 3, PGII, material name: Clean Harbors Methyl Ethyl Ketone, 10/25/10, prepared by Respondent.

e. The following Analytical Reports:

i. 111491, sample date: 7/10/11, for 5,973 gallons, listing the pH as 13.3 and the Specific Gravity as 1.193 and flash point of 140°F;

ii. 111572, sample date: 7/21/11 (taken prior to the tanker leaving Respondent's facility), listing the pH as 13.3 and the Specific Gravity as 1.227, and flash point of 141°.

f. The following Waste Materials Profile Sheets:

i. 7/21/11, Profile No. Ca-Lean, description: Bulk Lean Water, listing pH as 7 and Specific Gravity as 1.0;

ii. 7/21/11, Profile No. NaOH-A22, description: NaOH generated onsite, listing pH as ≥ 12.5 and Specific Gravity as 1.0-1.2;

iii. 7/25/11, Profile No. FB5-inter, description: FB50Shreddable Debris (Haz), listing pH as 7 and Specific Gravity as >1.2.

g. Meyer Steel Drum acknowledgement form 820318, 7/12/11, for 30 UN1A2/Y1.6/150 drums, with closure instructions.

h. Mauser closure instructions MC/PAS-QA-102 for Intermediate Bulk Containers, 6/11/10.

i. Training Records, dated 4/21/11 and 5/5/11.

3. The PHMSA Investigator observed and photographed the following:

a. Closure tools: Safety-Kleen torque wrench, rubber mallet, wizard non-sparking bung wrench, and torque wrench with restrictor bar for IBCs;

b. Drum marked UN1A2/Y1.6/200/11/USA/M4921 1.2/.9/1.2 with Reike bungs;

c. Intermediate Bulk Container marked UN31HA1/Y/110/USA/M4119/3800/2038/1041/56/100/1110/1110, bottle manufactured 10/10.

4. During the course of the investigation, the PHMSA Investigator obtained the following documents:

a. Interview of Harold Marcus Limited driver Daryl Calvank, obtained from Detective Bill Ford, State of Michigan Department of Environmental Quality.

b. List of Respondent's loads hauled by Harold Marcus Limited from 2009 to 2011.

c. Uniform Hazardous Waste Manifest 000039890 MWI, 7/24/11, one tanker truck, with 3,500 Gallons of UN3266, RQ-Waste corrosive liquid, basic, inorganic n.o.s., (Sodium Hydroxide), 8, PGI.

d. Email from Randy Badiuk, Supervisor of Spill Services, Harold Marcus Limited, dated February 6, 2012, explaining that Respondent determined the proper shipping name and UN Identification Number for the shipment of waste back to Respondent's facility on July 27, 2011 from the incident site.

e. Photographs of Harold Marcus Limited Cargo Tank that exploded in Sawyer, Michigan on July 21, 2011, with close up of pitted aluminum.

f. Cargo tank certificate of compliance for Unit No. 678, with accompanying email from Randy Badiuk, Supervisor of Spill Services, Harold Marcus Limited, dated 1/13/12.

g. Chikaming Township Police Department Incident Report 11-00115, dated August 19, 2011.

h. Video of July 21, 2011 incident obtained from the Chikaming Township Police Department.

proof?

5. On July 21, 2011, Harold Marcus Limited, a commercial carrier, was transporting a load of hazardous materials from Respondent in Unit 678. Respondent loaded the material into the tank. At approximately 5:00 P.M., while stopping at a truck stop in Sawyer, Michigan, the driver, Daryl Calvank, observed that the tank was leaking and that the pressure in the cargo tank was higher than normal. The driver notified the truck stop of a leak and initiated the release of pressure in the tank, which temporarily stopped the leaks. The fire department was called and responded. Sawyer Road was closed by the Chikaming Township Police Department and the area of the truck stop around the tanker was evacuated. The leak from the tank resumed at approximately 8:45 P.M. The tank exploded at approximately 9:15 P.M.

1

Probable Violation No. 1

Offering a hazardous material for transportation in commerce while failing to describe the material with the proper shipping description, in violation of 49 C.F.R. §§ 171.2(a), 171.2(b), 171.2(f), 172.200(a) and 172.202.

Factual Allegations/Averments

1. The PHMSA Investigator reviewed Respondent's Uniform Hazardous Waste Manifest 000039888 MWI, for the tank which exploded on July 21, 2011, which describes the waste material as UN1993, Waste Flammable Liquids, n.o.s., (Methyl Ethyl Ketone), 3, PGII. The manifest provided additional information about the contents of the trailer describing the material as Ca-Lean.

2. Respondent provided the PHMSA Investigator analytical reports for samples which were taken eleven days prior to the incident (111491) and the day of the incident (111572).

3. A Sodium Hydroxide titration test was conducted in Report 111572 for the sample taken the day of the incident. The Sodium Hydroxide percentage weight was 14%. Report 111572 also indicated that the percentage weight of Ethanol was 0.019% and the percentage weight of Methyl Ethyl Ketone was 0.072%. The remainder of the percentage weight was water.

4. The proper shipping description for Sodium Hydroxide is UN1824, Sodium Hydroxide solution, 8, PGII or PGIII.

5. The PHMSA Investigator did not observe UN1824, Sodium Hydroxide solution, 8, PGII or PGIII as the shipping description on Uniform Hazardous Waste Manifest 000039888 MWI that Respondent prepared for their shipment on July 21, 2011.

6. The PHMSA Investigator did observe UN3266, RQ-Waste corrosive liquid, basic, inorganic n.o.s., (Sodium Hydroxide), 8, PGI on Uniform Hazardous Waste Manifest 000039890 MWI, 7/24/11, which was prepared by Respondent for the waste that was transported back to Respondent's facility after the explosion.

7. Respondent offered for transportation a class 8 hazardous material that was mixed with a minute amount of class 3 hazardous material, and did not properly describe the hazardous material, in violation of the HMR.

- Please see Inspection/Investigation Report Number 11242024 at pages 2 and 3, and the exhibits that accompany this report, which are incorporated herein.

2

Probable Violation No. 2

Offering a hazardous material containing 14% sodium hydroxide, a Class 8 material, for transportation in an aluminum cargo tank, which was not compatible with the lading, resulting in a catastrophic failure of the aluminum cargo tank and an injury to a firefighter, in violation of 49 C.F.R. §§ 171.2(a), 171.2(b), 171.2(e), 172.101 HM Table, 172.102 (c)(5), 173.24(a), 173.24(e)(1) and 173.24(e)(2).

Factual Allegations/Averments

1. The PHMSA Investigator reviewed Respondent's Uniform Hazardous Waste Manifest 000039888 MWI, for the tank which exploded on July 21, 2011, which describes the waste material as UN1993, Waste Flammable Liquids, n.o.s., (Methyl Ethyl Ketone), 3, PGII. The manifest provided additional information about the contents of the trailer describing the material as Ca-Lean.

2. Respondent provided the PHMSA Investigator analytical reports for samples which were taken eleven days prior to the incident (111491) and the day of the incident (111572).

3. A Sodium Hydroxide titration test was conducted in Report 111572 for the sample taken the day of the incident. The Sodium Hydroxide percentage weight was 14%. Report 111572 also indicated that the percentage weight of Ethanol was 0.019% and the percentage weight of Methyl Ethyl Ketone was 0.072%. The remainder of the percentage weight was water.

4. The PHMSA Investigator did observe UN3266, RQ-Waste corrosive liquid, basic, inorganic n.o.s., (Sodium Hydroxide), 8, PGI on Uniform Hazardous Waste Manifest 000039890 MWI, 7/24/11, which was prepared by Respondent for the waste that was transported back to Respondent's facility after the explosion.

5. Respondent loaded Sodium Hydroxide into the Harold Marcus Limited trailer on July 21, 2011.

6. The PHMSA Investigator reviewed the statement that the Harold Marcus Limited driver gave to Detective Bill Ford, which stated that the driver, Daryl Calvank, delivered an aluminum tank to Respondent on July 21, 2011.

7. The PHMSA Investigator reviewed the photographs and video of the July 21, 2011 explosion of cargo tank incident, and observed a photograph of the Tank Specification Plate, as well as the cargo tank Certificate of Compliance for tank 678, which indicates that the tank was constructed of aluminum.

8. The entry for Sodium Hydroxide, solution in the 49 C.F.R. § 172.101 Hazardous Materials Table lists note 34 in column 7 special provisions. Note 34 refers the reader to 49 C.F.R. § 172.102 (c)(5), which states: "Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material."

9. Chikaming Township Police Department Incident Report 11-00115, dated August 19, 2011, indicates that Fireman Irv Hischke was injured as a result of the explosion, experiencing "burns on his face from droplets of the corrosive material as it fell from the sky after the tanker exploded."

10. Respondent loaded and transported sodium hydroxide solution into an aluminum tanker, which is an incompatible package, causing the tanker to explode and the injury of a firefighter, in violation of the HMR.

- Please see Inspection/Investigation Report Number 11242024 at pages 4 to 6, and the exhibits that accompany this report, which are incorporated herein.

3

Probable Violation No. 3

Offering for transportation in commerce the hazardous materials, UN 1993, Waste Flammable liquids n.o.s., (tetrahydrofuran), 3, PGII, UN 2052, Dipentene, 3, PGIII and UN 1193 Methyl ethyl ketone, 3, PGII in UN certified 1A2 drums and 31HA1 intermediate bulk containers (IBCs) while failing to perform all functions necessary to bring the UN standard packages into compliance, thereby voiding the UN certifications, in violation of 49 CFR §§ 171.2(a), 171.2(b), 173.22(a)(4), 173.24(f)(2), and 178.601(b).

Factual Allegations/Averments

1. The PHMSA Investigator reviewed the Uniform Hazardous Waste Manifests and Bills of Lading that Respondent prepared for shipments of UN 1993, Waste Flammable liquids n.o.s., (tetrahydrofuran), 3, PGII, UN 2052, Dipentene, 3, PGIII and UN 1193 Methyl ethyl ketone, 3, PGII in UN1A2 drums and UN31HA1 IBCs.

2. Respondent described the methods used to close UN1A2 drums and UN31HA1 IBCs.

3. The PHMSA Investigator observed and photographed the tools Respondent used to close the drums and IBCs, and observed that the wrench for the drums was set at 75 foot pounds and the wrench for IBCs had a maximum reading of 300 inch pounds.

4. The PHMSA Investigator reviewed the closure instructions and observed the following:

a. The UN1A2 drums require the ring bolt to be closed to 65-70 foot pounds;

b. The IBCs require the six inch fill cap to be closed to 70 foot pounds (840 inch pounds).

5. Respondents tools were not set at the required torques for closing the UN1A2 drums and UN31HA1 IBCs in accordance with the closure instructions.

6. Respondent transported hazardous materials in UN1A2 drums and UN31HA1 IBCs that were not closed in accordance with the closure instructions, in violation of the HMR.

- Please see Inspection/Investigation Report Number 11242024 at pages 7 to 10, and the exhibits that accompany this report, which are incorporated herein.

FACTS ALREADY CONSIDERED (UNDER 49 C.F.R. § 107.331) IN SETTING PROPOSED PENALTIES

Prior Violations:

PHMSA increases proposed penalties when Respondent has committed a prior violation of the Federal hazardous materials transportation law or the HMR, as determined through a civil penalty case, criminal case, or ticket initiated within the last six calendar years (49 C.F.R. § 107.331(d)). In general, a baseline proposed penalty will be increased by 25% for each prior civil or criminal enforcement case, and 10% for each prior ticket – up to a maximum increase of 100% (49 C.F.R. Part 107, Subpart D, Appendix A, Section IV.E).

According to PHMSA's records, Respondent has committed the following prior violations in cases initiated within the past six calendar years:

1. 09T-0282-SD-CE, Respondent paid a $1,000 ticket for failing to close a package in accordance with the manufacturer's instructions, with a quality control item of failing to mark the package with orientation arrows that meet HMR criteria.

2. 11T—125-SIBC-WE, Respondent paid a $320 ticket for failure to use the proper shipping name on a shipping paper.

Due to these prior tickets, the civil penalty will be increased by 20%.

Corrective Action:

An important purpose of PHMSA's enforcement program is to bring the regulated community into compliance with the Hazardous Materials Regulations, and to promote ongoing efforts by that community to maintain compliance. In determining the final penalty assessment, PHMSA considers documented evidence of actions taken by a Respondent to correct violations and ensure that they do not recur (49 C.F.R. § 107.331(g)).

In its August 24, 2011 letter, Respondent described actions it is taking to correct the violations alleged in this Notice and to prevent future violations of the HMR. Respondent stated:

For Violation 1, Respondent described its process of analyzing and characterizing the waste to be transported. Respondent is modifying its USDOT shipping description selection process such that there will only be one DOT shipping name available per profile to ensure the final shipping description is consistent with the chemicals present. This information will be provided to the transporter to assure compatibility between the shipment and the tank.

For Violation 2, Respondent described its process to ensure that the proper tank is used to transport the hazardous material. The transporter will be required to provide a certified tank wash receipt. Respondent will inspect the tank to ensure it is empty and clean and then check the specification plate to ensure the tank is compatible with the shipment and that all inspections and permits are current. With regards to the July 21, 2011 incident, Respondent stated that the facility loading personnel were not aware of the fact that the tank was constructed of aluminum. They assumed that all tanks that the transporter provided were constructed of stainless steel. Finally, "all third party transporters, as well as internal transportation resources, have been put on formal notice that aluminum tank trucks or tank trailers will no longer be authorized for use for a majority of hazardous materials shipments within the Corporation."

For Violation 3, Respondent states that they purchased additional torque wrench fitting with the specified 840 inch-pound rating for bolt securement on UN-specification packages and put them into service. Respondent also conducted a survey to ensure that all containers have current closure instructions on file and that all necessary tools and supplies are available.

Based on this information and documentation, the proposed penalties for violations Nos. 1 thru 3 have not been reduced.

In order to justify further reduction of the proposed penalty, Respondent must submit additional information and documentation, such as examples of its USDOT shipping description selection process, examples of current shipping papers/bills of lading/uniform hazardous waste manifests, examples of certified tank wash receipts received from transporters, copies of checklists from the tank trailer review process, copies of shipping container policies and procedures, copy of notice to third party transporters regarding the aluminum tank trailers, photographs and receipts for new torque wrenches and fittings, results from the survey of containers ensuring closure instructions, tools and supplies are on file and ready.

Financial Status

Under 49 C.F.R. §107.331 (e) and (f), the proposed penalty may be reduced if Respondent demonstrates that it is unable to pay that penalty, or if payment of the proposed penalty would affect Respondent's ability to continue in business. Respondent's poor financial condition may be a basis for reducing the proposed penalty; a healthy financial condition is *not* a basis for increasing the penalty.

PHMSA has no information that indicates that Respondent is unable to pay the proposed penalty or that payment of the proposed penalty will affect Respondent's ability to continue in business. **If Respondent wishes its financial condition to be considered in assessing a penalty for the violation(s) alleged in this Notice, it needs to provide current financial information (e.g., a copy of Respondent's last three tax returns, a current balance sheet [certified if possible], or other evidence of its assets and liabilities).**

TOTAL CIVIL PENALTY PROPOSED

Probable Violation	Baseline Penalty	Increase for Priors	Corrective Action	Proposed Penalty
1	$6,000	$1,200	$0	$7,200
2	$110,000[1]	$0	$0	$110,000
3	$2,500	$500	$0	$3,000
TOTAL	$118,500	$1,700	$0	$120,200

[1]This violation resulted in a severe injury and substantial destruction of property, therefore the maximum civil penalty of $110,000 is assessed.

ILD 005 450 697

Inspection / Investigation Report No. 11242024

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Hazardous Materials Enforcement

Inspection Location:
Clean Harbors Environmental Services of Chicago
1445 West 42nd Street
Chicago, IL 60609

Contact: Alfred Aghapour , General Manager
Phone: 773-247-2828
Fax: 773-650-1466

Principal Office (if different):
Clean Harbors Environmental Services
42 Longwater Drive
Norwell, MA 02061

Contact: Alan Mc Kin, CEO/President
Phone:

Type of Inspection: SERIOUS INCIDENT INSPECTION

Result: ENFORCEMENT REPORT

Inspector: TURNER, TED
Code: PHH-242
Title: HAZARDOUS MATERIALS ENFORCEMENT SPECIALIST

Signature:

Supervisor Name: Kevin W. Boehne
Title: Director, Central Region

Inspector #2: KWILINSKI, LAURA
Code: PHH-245
Title: HAZARDOUS MATERIALS ENFORCEMENT SPECIALIST

Authorization Date: 9/29/2011

Summary of Inspection

On July 27, 2011, and July 28, 2011, Investigator Ted Turner and Investigator Laura Kwilinski conducted a compliance inspection at Clean Harbors Environmental Services Company of Chicago (Clean Harbors), a processor and recycler of hazardous materials. The company processes hazardous waste and recovers hazardous materials and ships both hazardous waste and recycled hazardous materials. The company has a US DOT number of 180743, a federal tax identification number of 04-2798999 and a company website, www.cleanharbors.com.

Mr. Alfred Aghapour, General Manager, Mr. Ronald A. Pawlak, Shipping & Receiving Technician and Gary Malinowski, Senior Compliance Manager, represented Clean Harbors, answered questions, furnished documentation and escorted the investigators through the facility. The inspection consisted of reviewing shipping papers, packaging, safety, training and security matters.

Probable violations discovered during the investigation were; failing to properly identify a hazardous material on a shipping paper, offering a hazardous material in a package that was incompatible with the material loaded in the package and failing to properly close a package.

Violation Number: 1

Number Discovered: 1

49 CFR Section:
171.2(a)
171.2(b)
172.200(a)

Exhibit: 1,4-7,20-21 and 26-27

Violation Description:

Offering a hazardous material for transportation in commerce while failing to describe the material with the proper shipping description as prescribed in 49 CFR §172.200(a) in violation of 49 CFR §§ 171.2(a), 171.2(b), 171.2(f) and 172.200(a).

Evidence Summary:

On July 27, 2011, and July 28, 2011, Investigator Ted Turner and Investigator Laura Kwilinski conducted a compliance inspection at Clean Harbors Environmental Services Company of Chicago (Clean Harbors), a processor and recycler of hazardous materials. The company processes hazardous waste and recovers hazardous materials and ships both hazardous waste and recycled hazardous materials.

Mr. Alfred Aghapour, General Manager, Mr. Ronald A. Pawlak, Shipping & Receiving Technician and Gary Malinowski, Senior Compliance Manager, represented Clean Harbors, answered questions, furnished documentation and escorted the investigators through the facility. The inspection consisted of reviewing shipping papers, packaging, safety, training and security matters.

Clean Harbors uses a 50% solution of sodium hydroxide in a distillation process to recycle various flammable liquids from waste materials. Once the sodium hydroxide solution material reaches between a 10-20% strength, it is no longer suitable for the distillation process and it is stored in a tank with other liquid materials for disposal. Several days prior to shipping this "mixture" the company pulls a sample and conducts an analysis to determine the appropriate waste stream and a proper shipping description. In addition a sample is pulled from the cargo tank after the tank has been loaded in case there are issues with the load (Oral Statement, Alfred Aghapour, Exhibit 21).

On July 21, 2011, Clean Harbors loaded a waste material (Manifest, Exhibit 4) identified as CA-LEAN (Waste profile, Exhibit 6) into a Harold Marcus Limited aluminum MC-307 cargo tank, Unit No. 678. The driver stopped at a truck stop in Sawyer, Michigan to check on the load and noticed the cargo tank was leaking. The driver notified local officials and the truck stop was evacuated. The cargo tank continued to leak, developed multiple leaks and started releasing pressure through the units self closing pressure relief device and approximately 9 hours after being loaded at Clean Harbors, the unit exploded (Photographs, Exhibit 20) in the parking lot at the truck stop.

After Clean Harbors was notified of the issues with the load in Unit No. 678 on July 21, 2011, analysis of the sample drawn from the cargo tank was made (Exhibit 5, page 5) including titration to determine sodium hydroxide (NAOH) content. The report for the sample indicated the material contained 0.07 % methyl ethyl ketone (MEK), 0.02% Ethanol (ETOH) and 14% NAOH, had a ph of 13.30, a specific gravity of 1.227 and a flash point of 141° Fahrenheit.

The initial sample pulled several days prior to the cargo tank being loaded (Exhibit 5, pages 1-3), only tested for flammability and included no titration for NAOH content. The report for the sample pulled prior to loading the cargo tank indicated the material contained 10.53 % methyl ethyl ketone (MEK), 0.76% Isoamyl alcohol (IAA) and 1.12% Ethanol (ETOH), had a ph of 13.30, a specific gravity of 1.193 and a flash point of 140° Fahrenheit.

The materials remaining from the July 21, 2011 incident were shipped back to the Clean Harbors Chicago facility described as a UN 3266, RQ, Waste corrosive liquid, basic, inorganic, n.o.s., (Sodium hydroxide), 8, I (Exhibit 26). This material more closely resembles the Clean Harbors waste profile NaOH (Exhibit 7) which contains 15-20% sodium hydroxide. According to Mr. Randy Badiuk, Supervisor - Spill Services at Harold Marcus Limited, this was the description Mr. Aghapour indicated should be used for the return loads.

The material as shipped by Clean Harbors from the Chicago facility was identified as a flammable liquid when the material actually contained 14% sodium hydroxide, a Class 8 material and less than 0.10% of Class 3 materials and had a flash point greater than 140° Fahrenheit. The facility knew the waste stream could potentially contain class 8 materials (Shipping descriptions listed for CA LEAN, Exhibit 6, page 6) and had the capability of conducting titration to detect levels of sodium hydroxide in materials and failed to do so resulting in the incorrect description of the materials on the waste manifest and ultimately the failure of the cargo tank due to compatibility issues.

Clean Harbors Environmental Services Company of Chicago was in violation of the Hazardous Materials Regulations for failing to properly describe a hazardous material as prescribed in 49 CFR § 172.200(a).

Section 171.2(a) states "each person who performs a function covered by this subchapter must perform that function in accordance with this subchapter."

Section 171.2(b) states "each person who offers a hazardous material for transportation in commerce must comply with all applicable requirements of this subchapter."

Section 172.200(a) states "each person who offers a hazardous material for transportation shall describe the hazardous material on the shipping paper in the manner required by this subpart."

This probable violation was explained to Mr. Alfred Aghapour and Mr. Ronald Pawlak during the Exit Briefing (Exhibit 1).

A letter of corrective action dated August 24, 2011, was submitted by Anthony P. Cellucci
Vice President, Transportation Compliance (Exhibit 27).

Violation Number: 2

Number Discovered: 1

49 CFR Section:
171.2(a) / 171.2(b)
171.2(e)
173.24(a)
173.24(e)(1)
173.24(e)(2)

Exhibit: 1,4-6,20-21,24-25 and 27

Violation Description:

Offering a hazardous material containing 14% sodium hydroxide, a Class 8 material and less than 0.10% of Class 3 materials for transportation in a packaging, an aluminum cargo tank, that was not compatible with the lading in violation of 49 CFR, §§ 171.2(a), 171.2(b), 171.2(e), 173.24(a), 173.24(e)(1) and 173.24(e)(2).

Evidence Summary:

On July 27, 2011, and July 28, 2011, Investigator Ted Turner and Investigator Laura Kwilinski conducted a compliance inspection at Clean Harbors Environmental Services Company of Chicago (Clean Harbors), a processor and recycler of hazardous materials. The company processes hazardous waste and recovers hazardous materials and ships both hazardous waste and recycled hazardous materials.

Mr. Alfred Aghapour, General Manager, Mr. Ronald A. Pawlak, Shipping & Receiving Technician and Gary Malinowski, Senior Compliance Manager, represented Clean Harbors, answered questions, furnished documentation and escorted the investigators through the facility. The inspection consisted of reviewing shipping papers, packaging, safety, training and security matters.

Clean Harbors loaded the waste CA-LEAN (Waste profile, Exhibit 6) into a Harold Marcus Limited aluminum MC-307 cargo tank unit number 678. The driver, after leaving the Chicago facility proceeded to Lake Station, Indiana and stopped at a truck stop and checked his load. The driver noticed the cargo tank had risen in pressure and released pressure. The material was identified as a UN 1993, Waste Flammable liquids n.o.s. (methyl ethyl ketone, ethanol), 3, II (Waste manifest, Exhibit 4) on the shipping documents. The temperature was in excess of 90° that day, subsequently, the driver did not think it was unusual. The driver stopped at a truck stop in Sawyer, Michigan to check the load again and noticed the cargo tank was leaking. The driver notified local officials and the truck stop was evacuated. The cargo tank continued leaking and developing multiple leaks in the tank and approximately 9 hours after being loaded at Clean Harbors the unit exploded in the parking lot (Driver interview, Exhibit 24).

Clean Harbors uses a 50% solution of sodium hydroxide in a distillation process to recycle various flammable liquids from waste materials. Once the sodium hydroxide solution material reaches between a 10-20% strength it is no longer suitable for the distillation process, it is stored in a tank with other liquid materials for disposal. Several days prior to shipping this "mixture" the company pulls a sample and

conducts an analysis to determine the appropriate waste stream and a proper shipping description. In addition, a sample is pulled from the cargo tank after the tank has been loaded in case there are issues with the load (Oral Statement, Alfred Aghapour, Exhibit 21).

After Clean Harbors was notified of the issues with the load in Unit No. 678 on July 21, 2011, analysis of the sample drawn from the cargo tank was made (Exhibit 5, page 5) including titration to determine sodium hydroxide (NAOH) content. The report for the sample indicated the material contained 0.07 % methyl ethyl ketone (MEK), 0.02% Ethanol (ETOH) and 14% NAOH, had a ph of 13.30, a specific gravity of 1.227 and a flash point of 141° Fahrenheit. The initial sample pulled several days prior to the cargo tank being loaded (Exhibit 5, pages 1-3) only tested for flammability and included no titration for NAOH content. The report for the sample pulled prior to loading the cargo tank indicated the material contained 10.53 % methyl ethyl ketone (MEK), 0.76% Isoamyl alcohol (IAA) and 1.12% Ethanol (ETOH), had a ph of 13.30, a specific gravity of 1.193 and a flash point of 140° Fahrenheit.

The material as shipped by the Clean Harbors facility actually contained 14% sodium hydroxide, a Class 8 material and less than 0.10% of Class 3 materials. One of the statements made by Mr. Aghapour during the inspection was that Clean Harbors would never load the CA-LEAN waste stream materials into an aluminum cargo tank. Documentation supplied by Harold Marcus Limited (Exhibit 25) indicates nine loads were loaded into cargo tank constructed of aluminum, three of which were loads of CA-LEAN. The loading of the waste materials containing sodium ultimately resulted in the failure of the cargo tank (Photographs Exhibit 20) due to compatibility issues.

Section 171.2(a) states "each person who performs a function covered by this subchapter must perform that function in accordance with this subchapter."

Section 171.2(b) states "each person who offers a hazardous material for transportation in commerce must comply with all applicable requirements of this subchapter."

Section 171.2(e) states "no person may offer or accept a hazardous material for transportation in commerce unless the hazardous material is properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by applicable requirements of this."

Section 173.24(a) under applicability states "except as otherwise provided in this subchapter, the provisions of this section apply to —

(1)Bulk and non-bulk packagings;
(2)New packagings and packagings which are reused;
(3)and Specification and non-specification packagings

Section 173.24(e)(1) under compatibility states "even though certain packagings are specified in this part, it is, nevertheless, the responsibility of the person offering a hazardous material for transportation to ensure that such packagings are compatible with their lading. This particularly applies to corrosivity, permeability, softening, premature aging and embrittlement.

Section 173.24(e)(2) under compatibility states "packaging materials and contents must be such that there will be no significant chemical or galvanic reaction between the materials and contents of the package.

This probable violation was explained to Mr. Alfred Aghapour and Mr. Ronald Pawlak during the Exit Briefing (Exhibit 1).

A letter of corrective action dated August 24, 2011, was submitted by Anthony P. Cellucci Vice President, Transportation Compliance (Exhibit 27).

Violation Number: 3

Number Discovered: 33

49 CFR Section:
171.2(a)
171.2(b)
173.22(a)(4)
173.24(f)(2)
178.601(b)

Exhibit: 1,8-12,15-17,22-23 and 27

Violation Description:

Offering for transportation in commerce the hazardous materials, UN 1993, Waste Flammable liquids n.o.s., (tetrahydrofuran), 3, PG II UN 2052, Dipentene, 3, PG III and UN 1193 Methyl ethyl ketone, 3, PG II in UN certified 1A2 drums and 31HA1 intermediate bulk containers while failing to perform all functions necessary to bring the UN standard packages into compliance as prescribed in 49 CFR § 173.24(f)(2) in violation of 49 CFR §§ 171.2(a), 171.2(b), 173.22(a)(4), 173.24(f)(2), and 178.601(b), thereby voiding the UN certifications.

Evidence Summary:

On July 27, 2011 and July 28, 2011, Investigator Ted Turner and Investigator Laura Kwilinski conducted a compliance inspection at Clean Harbors Environmental Services Company of Chicago (Clean Harbors), a processor and recycler of hazardous materials. The company processes hazardous waste and recovers hazardous materials and ships both hazardous waste and recycled hazardous materials.

Mr. Alfred Aghapour, General Manager, Mr. Ronald A. Pawlak, Shipping & Receiving Technician and Gary Malinowski, Senior Compliance Manager, represented Clean Harbors, answered questions, furnished documentation and escorted the investigator through the facility. The inspection consisted of reviewing shipping papers, packaging, safety, training and security matters.

The company as part of waste recycling distills flammable liquids from hazardous waste shipped to the facility and then resells the materials. The material is packaged in UN 1A2 drums (Photographs, Exhibit 12) and UN 31HA1 Intermediate bulk containers (Photographs, Exhibit 16).

During the inspection, Mr. Aghapour was questioned about package closure and he indicated Mr. Pawlak did most of the package closure at Clean Harbors. Mr. Pawlak was interviewed and requested to explain how he closed the drums and IBCs used by Clean Harbors. He indicated the drums were closed by pounding on the clamp ring while tightening with the torque wrench until it clicked. The wrench as observed (Photographs, Exhibit 11, pages 3-6) was set at 75 foot pounds. I inquired if the wrench was still at the setting used when closing the drums, Mr. Pawlak indicated it was. When asked about the gap in the clamp ring he indicated he got it to about a ½ inch and then tightened the lock nut onto the bolt. When asked if he checked the gap he indicated he got it to between ½ and ¼ inch but did not measure the gap. In regards to the IBC fill caps, he produced a different wrench and indicated he used it and the special tool

(Photographs, Exhibit 23) for the cap and tightened the cap on with it (Oral Statement, Exhibit 22). The wrench used on IBCs measure inch pounds and had a maximum reading on 300 inch pounds.

The closure instructions for the UN 1A2 drums calls for the ring bolt to be tightened to 65-70 foot pounds with a gap of 1/8 inch minimum, 1/4 inch maximum with the ring ends not touching (Exhibit 9, page 2). The closure instructions for the IBC indicate the six inch fill cap is to be tightened to 70 foot pounds (Exhibit 15) which equals 840 inch pounds. Both package types were incorrectly closed by Mr. Pawlak.

The investigator reviewed the closure instructions for both packages and indicated both packages were being improperly closed. It was then explained that failure to close UN certified drums and IBCs containing hazardous materials in the method prescribed by the manufacturer and certifier was a violation of the Hazardous Materials Regulations, and that such failure also voided the UN certification of the packages.

The following shipments of hazardous materials were made by Clean Harbors Environmental Services Company of Chicago in UN 1A2 specification packages while failing to perform all functions necessary to bring the UN standard drums into compliance;

Hazardous waste manifest numbered 000039855, dated April 28, 2011, for a shipment of twelve drums (Exhibit 8, page 1) totaling 660 gallons of FB5-inter (Waste profile, Exhibit 10) a UN 1993, Waste Flammable liquids n.o.s., (tetrahydrofuran), 3, PG II. The material was shipped in a UN 1A2 drum (Photographs, Exhibit 12) and the drum was closed with a torque wrench set to 75 foot pounds (Exhibit 11, pages 3-6) to a gap of around ½ to ¼ inch and the bungs were not checked for tightness. The closure instructions call for the ring bolt to be tightened to 65-70 foot pounds with a gap of 1/8 inch minimum, 1/4 inch maximum with the ring ends not touching (Exhibit 9, page 2).

Hazardous waste manifest numbered 000039868, dated June 1, 2011, for a shipment of twelve drums (Exhibit 8, page 2) totaling 660 gallons of FB5-inter (Waste profile, Exhibit 10) a UN 1993, Waste Flammable liquids n.o.s., (tetrahydrofuran), 3, PG II. The material was shipped in a UN 1A2 drum (Photographs, Exhibit 12) and the drum was closed with a torque wrench set to 75 foot pounds (Exhibit 11, pages 3-6) to a gap of around ½ to ¼ inch and the bungs were not checked for tightness. The closure instructions call for the ring bolt to be tightened to 65-70 foot pounds with a gap of 1/8 inch minimum, 1/4 inch maximum with the ring ends not touching (Exhibit 9, page 2).

Hazardous waste manifest numbered 000039880, dated June 28, 2011, for a shipment of six drums (Exhibit 8, page 3) totaling 330 gallons of FB5-inter (Waste profile, Exhibit 10) a UN 1993, Waste Flammable liquids n.o.s., (tetrahydrofuran), 3, PG II. The material was shipped in a UN 1A2 drum (Photographs, Exhibit 12) and the drum was closed with a torque wrench set to 75 foot pounds (Exhibit 11, pages 3-6) to a gap of around ½ to ¼ inch and the bungs were not checked for tightness. The closure instructions call for the ring bolt to be tightened to 65-70 foot pounds with a gap of 1/8 inch minimum, 1/4 inch maximum with the ring ends not touching (Exhibit 9, page 2).

The following shipments of hazardous materials were made by Clean Harbors Environmental Services Company of Chicago in UN 31HA1 specification packages while failing to perform all functions necessary to bring the UN standard drums into compliance;

Bill of lading numbered 341813, dated November 27, 2011, for ten UN 31HA1 intermediate bulk containers of UN 2052, Dipentene, 3, PG III (Exhibit 13, page 1) weighing 19,110 pounds. The intermediate bulk container's six inch fill cap (Photographs Exhibit 16) was torqued with a wrench with a capacity of 300 inch pounds (Photographs, Torque wrench, Exhibit 23) instead of the required 70 foot pounds (840 inch pounds) and were improperly closed.

Bill of lading numbered 341916 dated March 17, 2011, for five UN 31HA1 intermediate bulk containers of UN 2052, Dipentene, 3, PG III (Exhibit 13, page 2) weighing 8,700 pounds. The intermediate bulk container's six inch fill cap (Photographs, Exhibit 16) was torqued with a wrench with a capacity of 300 inch pounds (Photographs, Torque wrench, Exhibit 23) instead of the required 70 foot pounds (840 inch pounds) and were improperly closed.

Bill of lading numbered 342019, dated July 13, 2011, for seven UN 31HA1 intermediate bulk containers (Exhibit 17) of UN 1193 Methyl ethyl ketone, 3, PG II weighing 16,655 pounds. The intermediate bulk container's six inch fill cap (Photographs, Exhibit 16) was torqued with a wrench with a capacity of 300 inch pounds (Photographs Torque wrench, Exhibit 23) instead of the required 70 foot pounds (840 inch pounds) and were improperly closed.

Clean Harbors Environmental Services Company of Chicago was in violation of the Hazardous Materials Regulations for failing to close UN certified packages containing hazardous materials in the method prescribed by the manufacturer and certifier as prescribed in 49 CFR § 173.24, thereby voiding the UN certifications.

171.2(a) states "each person who performs a function covered by this subchapter must perform that function in accordance with this subchapter."

171.2(b) states "each person who offers a hazardous material for transportation in commerce must comply with all applicable requirements of this subchapter."

Section 171.2(e) states "no person may offer or accept a hazardous material for transportation in commerce unless the hazardous material is properly classed, described, packaged, marked, labeled, and in condition for shipment as required or authorized by applicable requirements of this."

173.22(a)(4) states "for a DOT Specification or UN standard packaging subject to the requirements of part 178 of this subchapter, a person must perform all functions necessary to bring the package into compliance with parts 173 and 178 of this subchapter, as identified by the packaging manufacturer or subsequent distributor (for example, applying closures consistent with the manufacturer's closure instructions) in accordance with §178.2 of this subchapter."

173.24(f)(2) states "except as otherwise provided in this subchapter, a closure (including gaskets or other closure components, if any) used on a specification packaging must conform to all applicable requirements of the specification and must be closed in accordance with information, as applicable, provided by the manufacturer's notification required by §178.2 of this subchapter."

Section 178.601(b) states "it is the responsibility of the packaging manufacturer to assure that each package is capable of passing the prescribed tests. To the extent that a package assembly function, including final closure, is performed by the person who offers a hazardous material for transportation, that person is responsible for performing the function in accordance with §173.22 and §178.2 of this subchapter."

This probable violation was explained to Mr. Alfred Aghapour and Mr. Ronald Pawlak during the Exit Briefing, (Exhibit 1).

A letter of corrective action dated August 24, 2011 was submitted by Anthony P. Cellucci
Vice President, Transportation Compliance (Exhibit 27).

Additional Information Pertaining to the Inspection:

Exhibit Summary

Evidence		Obtained From		
No.	**Description**	**Name, Title**	**Company**	**City, State**
1	Exit Briefing.	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
2	Security Inspection	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
3	HM registration.	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
4	Hazardous waste manifest numbered 000039888, dated July 21, 2011	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
5	Analytical reports	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
6	Clean Harbors Profile No. CA LEAN, profile indicates the material has a neutral PH, a flash point of 101-140 F with a large list of potential PSN's.	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
7	Clean Harbors Profile No. NaOH, profile indicates the material has a PH gearter than or equal to 12.5, a flash point of 101-140 F, and 15-20% sodium hydroxide as the main constituent.	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
8	Hazardous waste manifest numbered 000039855, dated April 28, 2011	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
9	Invoice number 820318 dated July 12, 2011 for UN 1A2	Alfred Aghapour, General Manager	Clean Harbors Environmental Services	Chicago, IL

Evidence		Obtained From		
No.	**Description**	**Name, Title**	**Company**	**City, State**
	steel drums from Meyer Steel Drum		of Chicago	
10	Waste Profile FB5-inter	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
11	Photographs of closure tools	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
12	Photographs of Meyer UN 1A2 drums	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
13	Bill of lading numbered 341813 dated November 27, 2011.	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
14	MSDS for UN 2052, Dipentene, 3, PG III	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
15	Mauser UN 31HA1 intermediate bulk containers closure instructions	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
16	Photographs of Mauser UN 31HA1 intermediate bulk containers	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
17	Bill of lading numbered 342019 dated July 13, 2011	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
18	MSDS for UN 1193 Methyl ethyl ketone, 3, PG II	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
19	HM training records	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
20	Photographs of cargo tank that was in the incident	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
21	Oral statement Alfred Aghapour	Alfred Aghapour, General Manager	Clean Harbors Environmental Services of Chicago	Chicago, IL
22	Oral statement Ronald A. Pawlak	Ronald A. Pawlak, Shipping & Receiving Technician	Clean Harbors Environmental Services of Chicago	Chicago, IL
23	Photographs of closure tools for IBCs	Ted Turner, Hazardous Materials Investigator	USDOT/PHMSA/OHMS	Des Plaines, IL
24	Interview of Harold Marcus	Bill Ford, Detective	Michigan Department of	Kalamazoo, MI

Evidence		Obtained From		
No.	**Description**	**Name, Title**	**Company**	**City, State**
	LTD driver by Michigan Department of Natural Resources		Natural Resources	
25	List of loads hauled by Marcus out of Clean Harbors Chicago.	Randy Badiuk , Supervisor - Spill Services	Harold Marcus Limited	Bothwell, Ontario Canada, XX
26	Return load of material from incident	Randy Badiuk , Supervisor - Spill Services	Harold Marcus Limited	Bothwell, Ontario Canada, XX
27	Corrective action	Anthony P. Cellucci, Vice President, Transportation Compliance	Clean Harbors	Norwell, MA

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration

Office of Hazardous Materials Safety, Field Operations, Central Region

2300 E. Devon Ave. Suite 478
Des Plaines, Illinois 60018
(847) 294-8580 Fax: (847) 294-8590

EXIT BRIEFING

Report Control # 11242024

Company Name Clean Harbors Environmental Services of Chicago Date 7/28/11

Address: 1445 West 42nd Street, Chicago, IL, 60609

Company Phone # 773-247-2828 Tax ID# 04-2698999

Company Fax #: 773-650-1466 Company Web Address www.cleanharbors.com

NAME OF INDIVIDUALS RECEIVING THE BRIEFING:

Name: Alfred Aghapour Title:

Email Address: aghapour.alfred@cleanharbors.com

Name: Gary Malinowski Title: Senior Compliance Manager

Email Address:

Name: Title:

Email Address:

This has been a compliance investigation conducted in accordance with Title 49 U.S.C. Section 5121(c). This exit briefing addresses only the areas noted, it is not a finding of general compliance in any other areas covered by the Hazardous Materials Regulations that were subject to the investigation.

During the course of the investigation, the following probable violations of 49 CFR and/or quality control items were noted:

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 1
PAGE: 1 OF 3

Probable Violations

Section: 171.2/172.202

Explanation: Offering a shipping paper to a carrier with an improper shipping description

Company offered a class 8 material as a class 3 material which reacted in the cargo tank causing the tank to fail

Report Control # 11242024

Probable Violations

Section: 172.2 / 173.24(e)

Explanation: Offering a hazardous material for transportation in a package that was incompatible with the material of construction of the package

Company offered (loaded) a corrosive material, sodium hydroxide, in an aluminum cargo tank which reacted and caused the tank to fail

Probable Violations

Section: 171.2 / 173.24

Explanation: Offering hazardous materials for transportation and failing to close the package according to manufactures instructions

Mauser UN 31HA1 IBC closed with a torque wrench that only measures to 300 inch pounds. Closure to 840 inch pounds is required
Open head UN 1A2 drums closed improperly as well

Probable Violations

Section: 171.2 / 172.704(d)

Explanation: Failing to create and retain hazardous materials records

Records fail to contain name and address of trainer as required

Probable Violations

Section:

Explanation:

Report Control # 11242024

This document is not a final report. The information gathered at this investigation and any probable violations noted will be reviewed prior to finalizing the report. Probable violation(s) may be removed or others may be added during this review. In addition, quality control items may be revised to become probable violations during this review.

Upon determination that a probable violation exists, the Associate Administrator for Hazardous Materials Safety is authorized to impose certain sanctions, including warning letters, tickets, compliance orders, and civil penalties. In addition, court actions, including injunctive or criminal proceedings may be initiated. Title 49 U.S.C. Sections 5123 and 5124 provide for civil and criminal penalties for violation of the Hazardous Materials Regulations.

A civil penalty of not more than $55,000, but not less than $250, per violation may be imposed through administrative proceedings initiated by the Office of Chief Counsel of the Pipeline and Hazardous Materials Safety Administration. In addition, if a violation results in death, serious illness or severe injury to any person or substantial destruction of property, the agency may increase the amount of the civil penalty for each violation to not more than $110,000. When a criminal violation has been determined by a court, a fine or imprisonment for not more than 5 years, or both, may be imposed for each violation. The maximum amount of imprisonment shall be 10 years in any case in which the violation involves the release of a hazardous material that results in death or bodily injury to any person.

The investigator does not determine which sanction, if any, may be imposed and cannot provide information concerning what proceedings will be initiated or sanctions imposed.

Documentation of corrective action submitted in writing to the investigator within 30 days of the inspection may be considered for mitigation should the sanction imposed result in the issuance of a notice proposing a civil penalty. However, any documented corrective action would not eliminate or preclude the initiation of a civil penalty proceeding, a finding of violation, or assessment of a civil penalty.

Our objective is to ensure a fair regulatory enforcement environment. If you feel you have been treated unfairly or unprofessionally, you may contact Billy Hines at 202-366-4700, or e-mail us at OHME-HQ@dot.gov. You also have a right to contact the Small Business Administration's National Ombudsman at 1-888-REGFAIR, or www.sba.gov/ombudsman regarding the fairness of the compliance and enforcement activities by this agency. The Pipeline and Hazardous Materials Safety Administration strictly forbids retaliatory acts by its employees. As such, you should feel confident that you will not be penalized for expressing your concerns about compliance and enforcement activities.

I certify that I received the above briefing as it appears on this form. I understand that by signing this form I am in no way expressing agreement with its contents. I am only acknowledging that I have reviewed it and have received a copy.

Signature of Investigator(s)

Signature of Representative(s)

Date: 7/28/11

Date: 7/28/11

INVESTIGATIVE NOTES
COMPILED AND RETAINED FOR ENFORCEMENT PURPOSES

PIPELINE AND HAZARDOUS MATERIAL SAFETY ADMINISTRATION
HAZMAT SECURITY INSPECTION REPORT

Inspection Date: 7/28/11

Facility Name and Address: Clean Harbors Environmental Services of Chicago
1445 West 42nd Street, Chicago, IL, 60609
Corporate 42 Longwater Drive, Norwell, MA, 02061 781-792-5000

Company Officials Interviewed: Alfred Aghapour — Title: General Manager
Gary Malinowski — Senior Compliance Manager

SECURITY PLAN

Identify the material(s) below requiring a Hazardous Materials Security Plan:		
	1.1, 1.2, 1.3	Any quantity.
	1.4, 1.5, 1.6	Placarded quantity.
	2.1	A large bulk quantity.
	2.2	A large bulk quantity of material with an oxidizer subsidiary. Any quantity PIH (e.g. Anhydrous ammonia).
	2.3	Any quantity.
K	3	PG I and II in a large bulk quantity. Placarded quantity desensitized explosives.
	4.1	Placarded quantity desensitized explosives.
	4.2	PG I and II in a large bulk quantity.
	4.3	Placarded quantity.
	5.1	PG I and II in a large bulk quantity. PG III perchlorates, ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions, suspensions, or gels in a large bulk quantity.
	5.2	Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled.
	6.1	Any quantity PIH. A large bulk quantity of a material that is not a PIH.
	6.2	Any quantity of a select agent or toxin listed by CDC or USDA (42 CFR, Part 73 or 9 CFR, Part 121).
	7	International Atomic Energy Agency Category 1 & 2 sources. Highway Route Controlled Quantities. Known Radionuclides in forms listed as Quantities of Concern by the Nuclear Regulatory Commission. Placarded quantity of uranium hexafluoride.
	8	PG I in a large bulk quantity.
		No hazardous materials shipped/transported requiring an security plan

"Large Bulk Quantity" refers to a quantity greater than 3,000 kg (6,614 lbs) for solids or 3,000 L (792 gal) for liquids and gases in a single packaging such as a cargo tank motor vehicle, portable tank, tank car, or other bulk container.

INVESTIGATIVE NOTES
COMPILED AND RETAINED FOR ENFORCEMENT PURPOSES

		Yes	No	N/A
1.	Does the company have a written Security Plan?	X		
2.	Has it been approved by another Federal Agency?			
	a. If yes, name of Agency and date approved:			
3.	Does the plan include a security assessment of possible transportation security risks, including site-specific or location-specific risks associated with facilities at which hazardous materials are prepared for transportation, stored, or unloaded incidental to movement?			
4.	Does the plan include measures to address the assessed risk(s)?			
5	Does the plan address **Personnel Security**?			
6.	What method is in place to confirm information provided by employees hired for positions that involve access to or handling of materials covered by the security plan?			
7.	Is the company adhering to its personnel security plan?			
8.	Does the plan address **Unauthorized Access**?			
9.	Does the company adhere to the plan to prevent unauthorized persons to gain access to hazmat covered by the plan or transport conveyances being prepared for transportation?			
10.	Does the plan address **En Route Security**?			
11.	Does the company adhere to its en route security plan from origin to destination, including private/contract/common carrier?			
12.	Does the plan include identification by job title of the senior management official responsible for overall development and implementation of the security plan?			
13.	Does the plan include security duties for each position or department that is responsible for implementing the plan or a portion of the plan and the process of notifying employees when specific elements of the security plan must be implemented?			
14.	Does the plan include a plan for training hazmat employees in accordance with §172.704 (a)(4) and (a)(5)?			
15.	Has the company conducted in-depth security training (plan specific) for all HM employees?			

INVESTIGATIVE NOTES
COMPILED AND RETAINED FOR ENFORCEMENT PURPOSES

		Yes	No	N/A
16.	Does the in-depth training program include the following:			
	a. Company security objectives?			
	b. Organizational security structure?			
	c. Specific security objectives?			
	d. Specific security duties?			
	e. Employee specific responsibilities?			
	f. Actions to take in the event of a security breach?			
17.	Has the company created and retained records of in-depth security training?			
18.	Is the security plan reviewed at least annually and revised and/or updated as necessary to reflect changing circumstances?	✓		

ADDITIONAL NOTES:

Training records fail to contain name and address of trainor as required by 49CFR Part 172.704(d)

Based on the current U.S. Department of Transportation Security Plan requirements, I hereby certify that the documented responses on the following page(s) are true to the best of my knowledge under penalty of perjury.

Person(s) Interviewed:

Signature _____ Date 7/28/11

Signature _____ Date _____

Investigator(s):

Signature _____ Date 7/28/11

Signature _____ Date _____

This inspection report and any comments made during this evaluation do not constitute an endorsement or approval of your security program in whole or in part. Do not send a copy of your Security Plan as a part of corrective action. If we need a copy of your Security Plan we will specifically request a copy in writing.

The following website may be helpful in the development and administration of security requirements:

http://phmsa.dot.gov/hazmat/security

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 2
PAGE: 3 OF 3

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION

HAZARDOUS MATERIALS CERTIFICATE OF REGISTRATION FOR REGISTRATION YEAR(S) 2011-2014

Registrant: CLEAN HARBORS RECYCLING SERVICES OF CHICAGO, LLC
Attn: RITA POWERS
1445 W 42ND STREET
CHICAGO, IL 60609

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 070811 550 009TV Issued: 07/08/2011 Expires: 06/30/2014

Record Keeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

(1) A copy of the registration statement filed with PHMSA; and
(2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, PHH-62, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Washington, DC 20590, telephone (202) 366-4109.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 3
PAGE: 1 OF 1

SC3657730 SC PPW 3/3/2011 Form Approved. OMB No. 2050-0039

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

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number: ILD005450697	2. Page 1 of 1	3. Emergency Response Phone: (800) 463-3718	4. Manifest Tracking Number: 000039888 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773) 247-2828

Generator's Site Address (if different than mailing address): SAME

MIT 270012321

6. Transporter 1 Company Name: Harold Marcus Limited — U.S. EPA ID Number: ~~FSCANADA~~

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
x	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), 3, PG II CORROSIVE WITH THE	001	TT	04600	G	D001	D002	D004
						D005	D006	D007
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
L.CA LEAN REC#128
SEAL # 1311-1312 TRACT 546B TRL. 678

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 07 Day 21 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DARYL CALVANK — Signature: [signature] — Month 07 Day 21 Year 11
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste tr
1. H040 2.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials cov — Year
Printed/Typed Name

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 4
PAGE: 1 OF 1

GENERATOR'S INITIAL COPY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

- ☐ CRUDE
- ☑ FINAL PRODUCT- tank
- ☐ FUEL
- ☐ PRODUCTION SAMPLE
- ☐ PROCESS DEVELOPMENT SAMPLE

CleanHarbors
ENVIRONMENTAL SERVICES®
Clean Harbors Recycling Services of Chicago, LLC

ANALYTICAL REPORT

TANK LAB#: 111491

DATE: 7/21/11

DATE REC'D: LAB: 7/10/11 TRACKING #: 24636180 TO TANK DATE:

COMPANY NAME & LOCATION: *Clean Harbors*
T-41B

MATERIAL IDENTIFICATION: *Process Water*

MATERIAL CODE:

AMOUNT: 5973 gals

Shipped 7/21/11 000039888 MW1

SAMPLE-APPEARANCE brown liquid PHASES ? yes %TOP 5 % BOTTOM 95

OVEN NVR N/A SOLUBLE IN WATER ?

SpG 1.193
pH 13.30 E 0 M/P
COLOR ____ APHA

GC/COLUMN:
MULTIPLIER: 0.1241

	1	2	AVERAGE of 1 & 2
NVR:			
WATER:	87.59%		87.59%
IGNITABILITY:			
%ACID / % BASE:			
PEROXIDES:			
	flash @ 140 F		

COMPONENT NAME	1	2	CORRECTED AVG.
MEK	84.85%		10.53%
IAA	6.11%		0.76%
ETOH	9.04%		1.12%

not corrected for NaOH; just water

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 5
PAGE: 1 OF 6

ATTACHED:
- o WIZ
- o B/L or MANIFEST
- o WEIGHT TICKET

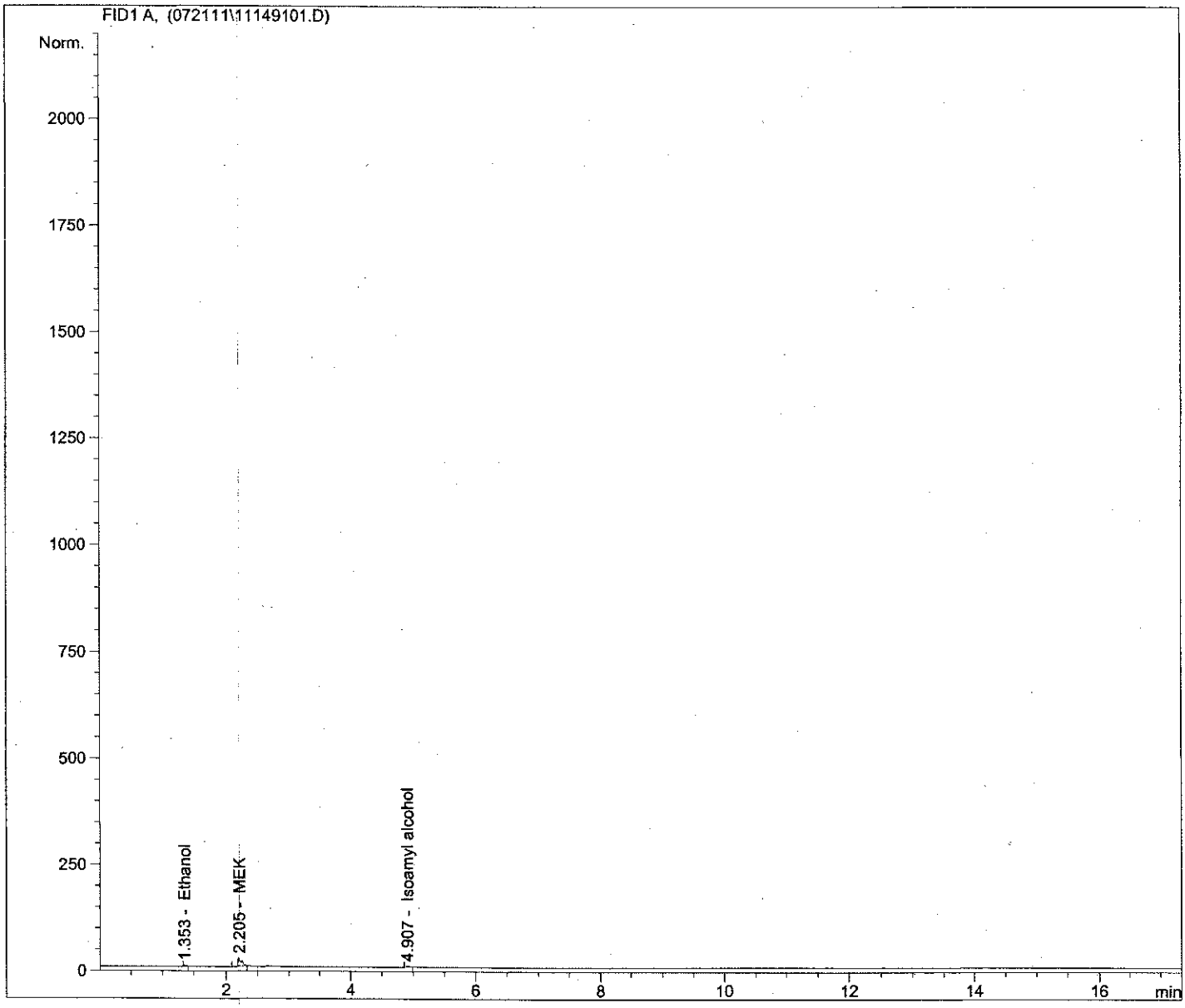
ANALYST: LA

APPROVED BY: LA

DATE/TIME: 7/21/11

Data File D:\HPCHEM\1\DATA\072111\11149101.D Sample Name: LW T-41B
111491

Injection Date	: 7/21/11 8:30:47 AM	Seq. Line :	1
Sample Name	: LW T-41B	Vial :	6
Acq. Operator	: LSA	Inj :	1
		Inj Volume :	0.1 µl
Sequence File	: D:\HPCHEM\1\SEQUENCE\C080-A6.S		
Acq. Method	: D:\HPCHEM\1\METHODS\C029-A3.M		
Last changed	: 7/21/11 8:29:29 AM by LSA (modified after loading)		
Analysis Method	: D:\HPCHEM\1\METHODS\C029-A3.M		
Last changed	: 7/21/11 9:26:02 AM by LSA (modified after loading)		



U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 5
PAGE: 2 OF 6

```
==================================================================
Injection Date  : 7/21/11 8:30:47 AM          Seq. Line :   1
Sample Name     : LW T-41B                        Vial :   6
Acq. Operator   : LSA                             Inj :   1
                                             Inj Volume : 0.1 µl
Sequence File   : D:\HPCHEM\1\SEQUENCE\C080-A6.S
Acq. Method     : D:\HPCHEM\1\METHODS\C029-A3.M
Last changed    : 7/21/11 8:29:29 AM by LSA
                  (modified after loading)
Analysis Method : D:\HPCHEM\1\METHODS\C029-A3.M
Last changed    : 7/21/11 9:26:02 AM by LSA
                  (modified after loading)
==================================================================

==================================================================
                     Normalized Percent Report
==================================================================

Sorted By              :      Signal
Calib. Data Modified   :      7/21/11 9:25:59 AM
Multiplier             :      1.0000
Dilution               :      1.0000

Signal 1: FID1 A,
Uncalibrated Peaks     :      using compound Isopropanol
```

RetTime [min]	Type	Area [pA*s]	Amt/Area	Norm %	Grp	Name
1.253		-	-	-	-	Methanol
1.353	PB	6.59406	3.68608e-3	9.036520	-	Ethanol
1.502		-	-	-	-	Isopropanol
1.636		-	-	-	-	Methylene chloride
2.205	PBA+	68.42223	3.33559e-3	84.850274	-	MEK
2.623		-	-	-	-	Tetrahydrofuran
4.907	PB	7.53472	2.18232e-3	6.113206	-	Isoamyl alcohol
5.345		-	-	-	-	Toluene
6.324		-	-	-	-	Dimethyl sulfoxide
7.121		-	-	-	-	Dimethylacetamide
9.224		-	-	-	-	n-Methyl pyrrolidone
9.371		-	-	-	-	Benzyl alcohol
9.854		-	-	-	-	n-Ethyl pyrrolidone
10.429		-	-	-	-	2,4 Dichloro Phenol
Totals :				100.000000		

```
 Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Amount limits exceeded

==================================================================
                    *** End of Report ***
```

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 5
PAGE: 3 OF 6

LAB #: 111572
REPORT DATE: 7/21/11
SAMPLE DATE: 7/21/11

CleanHarbors
ENVIRONMENTAL SERVICES®
Clean Harbors Recycling Services of Chicago, LLC

ANALYTICAL REPORT

COMPANY NAME & LOCATION: Clean Harbors

MATERIAL IDENTIFICATION: Waste water

MANIFEST# 000039868MWI

SAMPLE-APPEARANCE: yellow liquid

PHASES no %TOP % BOTTOM

OVEN NVR APPEARANCE:

SOLUBLE IN WATER ? No

Specific Gravity 1.227	NVR:		wt-%
pH 13.30 by meter	WATER:	86.06	wt-%
	Flash point:	No flash @ 141 F	
	NaOH by titration:	14	wt-%

VOC s

COMPONENT NAME		
MEK	723	ppm
Ethanol	190	ppm
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
Others		wt-%

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 5
PAGE: 4 OF 6

Data File D:\HPCHEM\1\DATA\072111\11572001.D

Sample Name: PW OUT

Injection Date	: 7/21/11 3:54:51 PM	Seq. Line :	1
Sample Name	: PW OUT	Vial :	4
Acq. Operator	: MMS	Inj :	1
		Inj Volume :	0.1 µl
Acq. Method	: D:\HPCHEM\1\METHODS\C029-A3.M		
Last changed	: 7/21/11 9:00:09 AM by LSA		
Analysis Method	: D:\HPCHEM\1\METHODS\C029-A3.M		
Last changed	: 7/22/11 7:36:06 AM by LSA (modified after loading)		

External Standard Report (Sample Amount is 01)

Sorted By	:	Signal
Calib. Data Modified	:	7/22/11 7:36:05 AM
Multiplier	:	1.0000
Dilution	:	1.0000

Signal 1: FID1 A,
Uncalibrated Peaks : using compound Tetrahydrofuran

RetTime [min]	Type	Area [pA*s]	Amt/Area	Amount [wt %]	Grp	Name
1.253		-	-	-		Methanol
1.353	PB	5.17417	3.68608e-3	1.90724e-2	-	Ethanol
1.502		-	-	-	-	Isopropanol
1.636		-	-	-	-	Methylene chloride
2.196	PB	19.02709	3.80000e-3	7.23029e-2	-	MEK
2.258		-	-	-	-	Ethyl Acetate
2.623		-	-	-	-	Tetrahydrofuran
4.907		-	-	-	-	Isoamyl alcohol
5.345		-	-	-	-	Toluene
6.324		-	-	-	-	Dimethyl sulfoxide
7.121		-	-	-	-	Dimethylacetamide
9.224		-	-	-	-	n-Methyl pyrrolidone
9.371		-	-	-	-	Benzyl alcohol
9.854		-	-	-	-	n-Ethyl pyrrolidone
10.429		-	-	-	-	2,4 Dichloro Phenol
12.525	BB	3.90316	2.74968e-3	1.07324e-2		?
Totals :				1.02108e-1		

Results obtained with enhanced integrator!
3 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)
Warning : Calibrated compound(s) not found
Warning : Amount limits exceeded

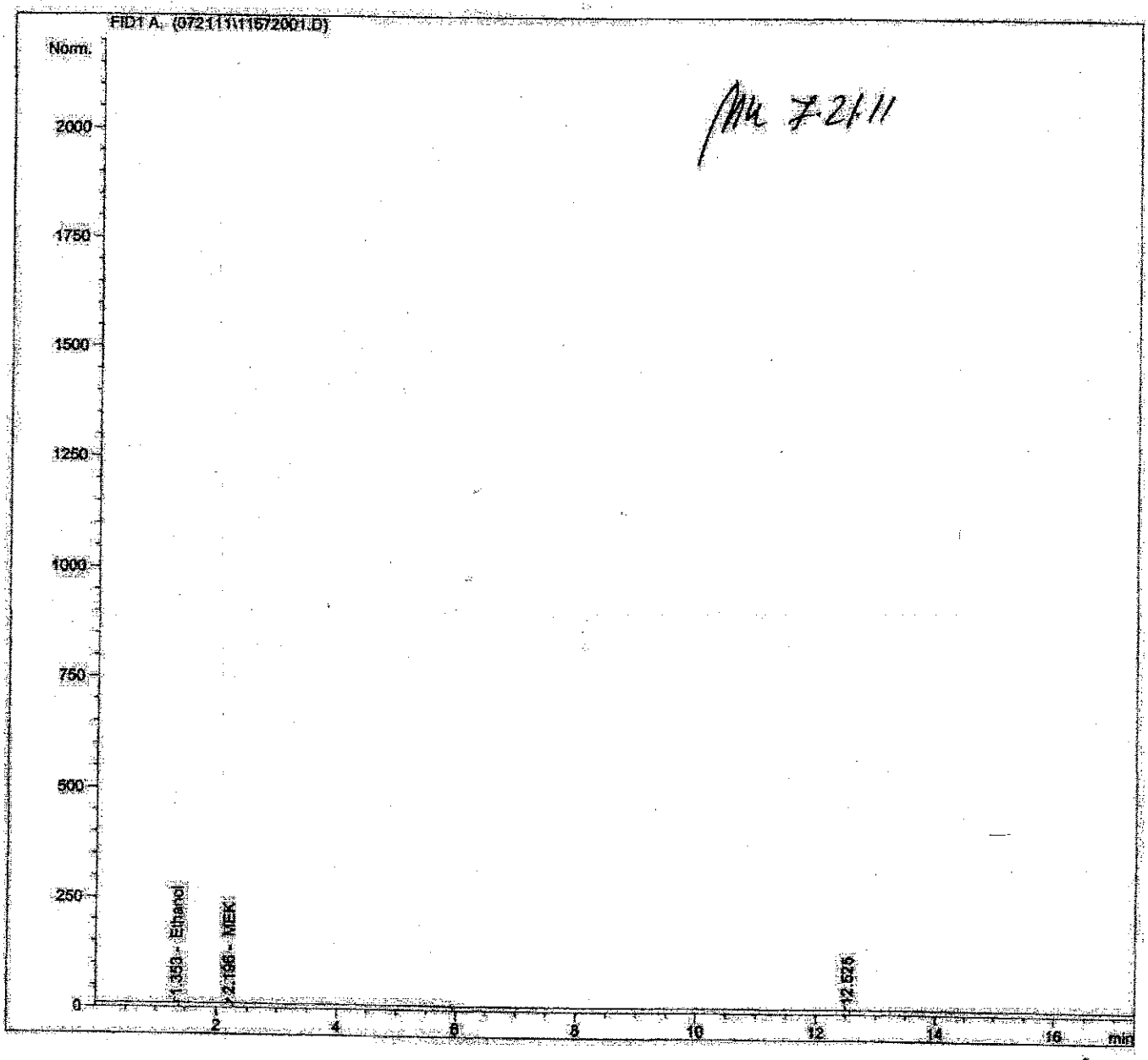
*** End of Report ***

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 5
PAGE: 5 OF 6

Data File D:\HPCHEM\1\DATA\072111\11572001.D

Sample Name: PW OUT

Injection Date	: 7/21/11 3:54:51 PM	Seq. Line :	1
Sample Name	: PW OUT	Vial :	4
Acq. Operator	: MMS	Inj :	1
		Inj Volume :	0.1 µl
Acq. Method	: D:\HPCHEM\1\METHODS\C029-A3.M		
Last changed	: 7/21/11 9:00:09 AM by LSA		
Analysis Method	: D:\HPCHEM\1\METHODS\C029-A3.M		
Last changed	: 7/22/11 7:36:06 AM by LSA (modified after loading)		



MM 7-21-11

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 5
PAGE: 6 OF 6

6850 7/22/11 7:36:07 AM LSA

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. CA-LEAN

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *CALLSTATEDEPT* GENERATOR NAME: *Clean Harbors Env Services Inc*

GENERATOR CODE (Assigned by Clean Harbors) *CO* CITY *Norwell* STATE/PROVINCE *MA* ZIP/POSTAL CODE *02061*

ADDRESS *42 Longwater Drive* PHONE:

CUSTOMER CODE (Assigned by Clean Harbors) *CO* CUSTOMER NAME: *Clean Harbors Env Services Inc*

ADDRESS *42 Longwater Drive* CITY *Norwell* STATE/PROVINCE *MA* ZIP/POSTAL CODE *02061*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *BULK LEAN WATER*

PROCESS GENERATING WASTE: TSDF CONSOLIDATION OF LOW BTU ORGANIC DRUM AND BULK LIQUIDS

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? No

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS: 1 [x] 2 3

% BY VOLUME (Approx.): TOP *10.00*; MIDDLE *0.00*; BOTTOM *90.00*

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR: *VARIES*

ODOR
- NONE
- [x] MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- [x] <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- [x] 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- [x] 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- [x] < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- [x] 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 6
PAGE: 1 OF 6

CHEMICAL	MIN	–	MAX	UOM
ACETONE		–		Trace
ALCOHOLS	0.0000000	–	10.0000000	%
BENZENE	0.0000000	–	1.0000000	%
BORON	0.0000000	–	1.0000000	%
FUEL AND LUBRICATING	0.0000000	–	20.0000000	%
LEAD	0.0000000	–	0.5000000	%
NON HALOGENATED SOLVENTS	10.0000000	–	20.0000000	%
NON SETTING RESINS AND POLYMER	0.0000000	–	10.0000000	%
ORGANIC HALOGENS	0.0000000	–	2.0000000	%
PETROLEUM DISTILLATES	0.0000000	–	10.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G09* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W219*

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0	5.0000			☑
D005	BARIUM	100.0	100.0000			☑
D006	CADMIUM	1.0	1.0000			☑
D007	CHROMIUM	5.0	5.0000			☑
D008	LEAD	5.0	5.0000			☑
D009	MERCURY	0.2	0.2000			☑
D010	SELENIUM	1.0	1.0000			☑
D011	SILVER	5.0	5.0000			☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE	0	PPM	
CYANIDE REACTIVE	0	PPM	
CYANIDE TOTAL	0	PPM	
SULFIDE REACTIVE	500.0000	PPM	

HOCs

☑ NONE

< 1000 PPM

>= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 6
PAGE: 2 OF 6

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

☑ YES NO USEPA HAZARDOUS WASTE?

D001 D002 D003 D004 D005 D006 D007 D008 D009 D010 D011 D012 D013 D014 D015 D016 D017 D018 D019 D020 D021

☑ YES NO DO ANY STATE WASTE CODES APPLY?

214 CR02 CR03 CR04 CR05 MA01 MA98 MA99

Texas Waste Code

☑ YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

111H 112A 112B 112C 112H 112I 112L 112T 113C 113H 113I 113L 114A 114B 114C 114L 121A 121C 121H 121L 121R 121T 122A 122C 122I 122L 122T 123C 123L 123T 131A 131C 131H 131L 131T 132H 132L 133C 133L 133T 134I 135I 135R 142T 143H 143T 145A 145B 145H 145I 145L 145T 146A 146B 146C 146H 146I 146L 146R 146T 147A 147I 148A 148B 148C 148H 148I 148L 148R 148T 150L 150T 211A 211B 211H 211I 211L 211R 211T 212B 212C 212H 212I 212L 212T 213A 213H 213I 213L 213T 221H 221I 221L 222B 222H 222I 222L 231C 231H 231I 231L 232B 232C 232H 232I 232L 232N 232T 233A 233B 233H 233I 233L 233N 233R 241A 241B 241H 241L 241T 242A 242B 242C 242H 251A 251C 251H 251I 251L 251T 252C 252H 252I 252L 252N 252T 253C 253I 253L 253T 254H 254L 254T 261A 261B 261H 261L 262B 262C 262H 262I 262L 263A 263B 263C 263H 263I 263L 263R 263T 264B 264C 264I 264L 264T 265A 265B 265H 265I 265L 266B 266H 266L 266T 267B 267C 267I 267L 268A 268B 268C 268H 268I 268L 268R 268T 269A 269B 269L 269T 270A 270B 270C 270H 270I 270L 281A 281H 282A 282B 282H 321L 331A 331B 331C 331H 331I 331N A01 A02 A03 A04 A05 B01 B02 B03 B04 B05 B06 B07 B08 B09 B11 B13 B14 C01 C02 C03 D01 D02 D03 E01 E02 E03 E04 E05 E06 E09 E12 E14 E15 E16 E19 E22 F01 F02 F03 G01 G02 G03 H01 H02 H03 H112 H122 H131 H132 H141 H145 H146 H148 H221 H270 K01 K02 K03 L01 L02 L03 M01 M05 M06 M07 N01 N03 N04 N07 N08 N09 N10 N11 N12 N13 N132 N136 N14 N145 N150 N16 N233 N267 N273 O01

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☑ YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

☑ YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

☑ YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES ☑ NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

N/A, NON DOT REGULATED MATERIAL, N/A

N/R, NOT REGULATED BY TDG, N/A

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME ☑ WEEKLY MONTHLY QUARTERLY YEARLY OTHER *Other*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET

TOTE TANK DRUM

OTHER:

DRUM SIZE:

☑ **BULK LIQUID**

GALLONS/SHIPMENT: *1.00 Min -5000.00 Max* GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 6
PAGE: 3 OF 6

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
	SCOTT K SULLIVAN	TECHNICAL COORDINATOR	

*40 CFR Sec. 264.12 required notice:

As required by Federal Resource Conservation and Recovery Act regulations found in 40 CFR Part 264.12(b) and all equivalent State hazardous waste regulations, notice is hereby provided that all Clean Harbors facilities that may be used to treat, store, and /or dispose of the hazardous waste described on this waste profile have the appropriate permits and the capacity to manage these wastes.

Please note this profile must be submitted for re-evaluation if there has been a change in the waste generating process or when there have been changes in the chemical composition or physical characteristics of the material.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 6
PAGE: 4 OF 6

Addendum

D. COMPOSITION

CHEMICAL	MIN	–	MAX	UOM
PHARMACEUTICALS	0.0000000	–	10.0000000	%
SEDIMENT	0.0000000	–	10.0000000	%
SOLVENTS	0.0000000	–	10.0000000	%
TOLUENE	0.0000000	–	1.0000000	%
VANADIUM	0.0000000	–	1.0000000	%
WATER	60.00000000	–	100.0000000	%
XYLENE	0.0000000	–	1.0000000	%

F. REGULATORY STATUS

USEPA HAZARDOUS WASTE?

D022 D023 D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 D043 F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019 F021 F022 F023 F024 F025 F026 F027 F032 F034 F035 F037 F038 F039 K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062 K064 K065 K066 K069 K071 K073 K083 K084 K085 K086 K087 K088 K090 K091 K093 K094 K095 K096 K097 K098 K099 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K131 K132 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K156 K157 K158 K159 K160 K161 K169 K170 K171 P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028 P029 P030 P031 P033 P034 P036 P037 P038 P039 P040 P041 P042 P043 P044 P045 P046 P047 P048 P049 P050 P051 P054 P056 P057 P058 P059 P060 P062 P063 P064 P065 P066 P067 P068 P069 P070 P071 P072 P073 P074 P075 P076 P077 P078 P081 P082 P083 P084 P085 P087 P088 P089 P092 P093 P094 P095 P096 P097 P098 P099 P101 P102 P103 P104 P105 P106 P107 P108 P109 P110 P111 P112 P113 P114 P115 P116 P118 P119 P120 P121 P122 P123 P127 P128 P185 P188 P189 P190 P191 P192 P194 P196 P197 P198 P199 P201 P202 P203 P204 P205 U001 U002 U003 U004 U005 U006 U007 U008 U009 U010 U011 U012 U013 U014 U015 U016 U017 U018 U019 U020 U021 U022 U023 U024 U025 U026 U027 U028 U029 U030 U031 U032 U033 U034 U035 U036 U037 U038 U039 U041 U042 U043 U044 U045 U046 U047 U048 U049 U050 U051 U052 U053 U055 U056 U057 U058 U059 U060 U061 U062 U063 U064 U065 U066 U067 U068 U069 U070 U071 U072 U073 U074 U075 U076 U077 U078 U079 U080 U081 U082 U083 U084 U085 U086 U087 U088 U089 U090 U091 U092 U093 U094 U095 U096 U097 U098 U099 U101 U102 U103 U105 U106 U107 U108 U109 U110 U111 U112 U113 U114 U115 U116 U117 U118 U119 U120 U121 U122 U123 U124 U125 U126 U127 U128 U129 U130 U131 U132 U133 U134 U135 U136 U137 U138 U140 U141 U142 U143 U144 U145 U146 U147 U148 U149 U150 U151 U152 U153 U154 U155 U156 U157 U158 U159 U160 U161 U162 U163 U164 U165 U166 U167 U168 U169 U170 U171 U172 U173 U174 U176 U177 U178 U179 U180 U181 U182 U183 U184 U185 U186 U187 U188 U189 U190 U191 U192 U193 U194 U196 U197 U200 U201 U202 U203 U204 U205 U206 U207 U208 U209 U210 U211 U213 U214 U215 U216 U217 U218 U219 U220 U221 U222 U223 U225 U226 U227 U228 U233 U234 U235 U236 U237 U238 U239 U240 U243 U244 U246 U247 U248 U249 U271 U277 U278 U279 U280 U328 U353 U359 U364 U365 U366 U367 U372 U373 U375 U376 U377 U378 U379 U381 U382 U383 U384 U385 U386 U387 U389 U390 U391 U392 U393 U394 U395 U396 U400 U401 U402 U403 U404 U407 U409 U410 U411

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 6
PAGE: 5 OF 6

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NA, WASTE ENVIRONMENTALLY HAZARDOUS WASTE, N/A
NA1270, WASTE PETROLEUM OIL, 3, PG I
NA1270, WASTE PETROLEUM OIL, 3, PG II
NA1986, WASTE PROPARGYL ALCOHOL, 3, (6.1), PG II
NA1987, WASTE DENATURED ALCOHOL, 3, PG I
NA1993, WASTE COMBUSTIBLE LIQUID, N.O.S., (BENZENE), COMBUSTIBLE LIQUID, PG III
NA1993, WASTE COMBUSTIBLE LIQUID, N.O.S., (BENZENE, TOLUENE, XYLENE), COMBUSTIBLE LIQUID, PG III
NONE, LEACHABLE WASTE, (CHROMIUM), N/A
NR, WASTE ENVIRONMENTALLY HAZARDOUS WASTE/LEACHABLE WASTE, N/A
UN1090, WASTE ACETONE, 3, PG II
UN1133, WASTE ADHESIVES, CONTAINING A FLAMMABLE LIQUID, 3, PG I
UN1145, WASTE CYCLOHEXANE, 3, PG II
UN1170, WASTE ETHANOL, 3, PG II
UN1203, WASTE GASOLINE, 3, PG II
UN1210, WASTE PRINTING INK, 3, PG I
UN1210, WASTE PRINTING INK, 3, PG III
UN1219, WASTE ISOPROPANOL, 3, PG II
UN1230, WASTE METHANOL, 3, PG II
UN1263, WASTE PAINT, 3, PG I
UN1307, WASTE XYLENES, 3, PG II
UN1719, WASTE CAUSTIC ALKALI LIQUID, N.O.S., (SODIUM HYDROXIDE, WATER), 8, PG II
UN1719, WASTE CAUSTIC ALKALI LIQUIDS, N.O.S., (SODIUM HYDROXIDE, WATER), 8, PG II
UN1760, WASTE CORROSIVE LIQUID, N.O.S., (SODIUM HYDROXIDE), 8, PG I
UN1760, WASTE CORROSIVE LIQUID, N.O.S., (SODIUM HYDROXIDE), 8, PG II
UN1760, WASTE CORROSIVE LIQUIDS, N.O.S., (SPENT SULFURIC ACID), 8, PG I
UN1863, WASTE FUEL, AVIATION, TURBINE ENGINE, 3, PG I
UN1987, WASTE ALCOHOLS, N.O.S., (XYLENE, METHANOL), 3, PG II
UN1992, WASTE FLAMMABLE LIQUID, TOXIC, N.O.S., (ACETONE, TOLUENE), 3, (6.1), PG III
UN1992, WASTE FLAMMABLE LIQUID, TOXIC, N.O.S., (ACETONE,XYLENE), 3, (6.1), PG II
UN1992, WASTE FLAMMABLE LIQUID, TOXIC, N.O.S., (PETROLEUM DISTILLATES, CCA), 3, (6.1), PG II
UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, N.O.S., (ACETONE,XYLENE), 3, (6.1), PG II
UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, N.O.S., (TOLUENE, XYLENE, ALCOHOLS), 3, (6.1), PG II
UN1993, WASTE FLAMMABLE LIQUID, N.O.S., (BENZENE, TOLUENE, XYLENE), 3, PG II
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (ACETONITRILE,SODIUM HYDROXIDE), 3, PG II
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (METHANOL,XYLENE), 3, PG I
WASTE UN1993, FLAMMABLE LIQUID, N.O.S., (ACETONE, TOLUENE), 3, PG III
WASTE UN1993, FLAMMABLE LIQUID, N.O.S., (BENZENE, TOLUENE, XYLENE), 3, PG II
UN2240, WASTE CHROMOSULFURIC ACID, 8, PG I
UN2810, WASTE TOXIC LIQUID, ORGANIC, N.O.S., (CHROMIUM), 6.1, PG II
UN2810, WASTE TOXIC LIQUIDS, ORGANIC, N.O.S, (CHROMIUM), 6.1, PG III
UN2902, WASTE PESTICIDE, LIQUID, TOXIC, N.O.S., (PESTICIDE HALOGÉNÉ), 6.1, PG II
UN2924, WASTE FLAMMABLE LIQUID, CORROSIVE, N.O.S., (ACETONE, GLACIAL ACETIC ACID), 3, (8), PG II
UN2924, WASTE FLAMMABLE LIQUID, CORROSIVE, N.O.S., (ISOPARAFIN/SODIUM HYDROXIDE), 3, (8), PG I
UN2924, WASTE FLAMMABLE LIQUIDS, CORROSIVE, N.O.S., (ACETONE,SODIUM HYDROXIDE), 3, (8), PG II
UN2929, WASTE TOXIC LIQUID, FLAMMABLE, ORGANIC, N.O.S., (DICHLOROMETHANE), 6.1, (3), PG II
UN3082, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (LEAD), 9, PG III
WASTE UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (UREA,TETRAMMONIUM EDTA SOLUTION), 9, PG III
UN3098, WASTE OXIDIZING LIQUID, CORROSIVE, N.O.S., (SODIUM PERSULFATE), 5.1, (8), PG II
UN3266, WASTE CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S., (SODIUM HYRDOXIDE, AMINE), 8, PG II
UN3267, WASTE CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S., (AMMONIA,COMPRESSOR OIL), 8, PG II
UN3286, WASTE FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S., (POTASSIUM HYDROXIDE, ORGANIC PESTICIDE), 3, (6.1), (8), PG II
UN3287, WASTE TOXIC LIQUID, INORGANIC, N.O.S., (AMMONIA, COMPRESSOR OIL), 6.1, PG III

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 6
PAGE: 6 OF 6

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. NaOH-A22

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *ILD005450697* GENERATOR NAME: *Clean Harbors Recycling Services of Chicago, LLC*

GENERATOR CODE (Assigned by Clean Harbors) *SC* CITY *Chicago* STATE/PROVINCE *IL* ZIP/POSTAL CODE *60609*

ADDRESS *1445 W 42nd Street* PHONE:

CUSTOMER CODE (Assigned by Clean Harbors) *SC* CUSTOMER NAME: *Clean Harbors Recycling Services of Chicago, LLC*

ADDRESS *1445 W 42nd Street* CITY *Chicago* STATE/PROVINCE *IL* ZIP/POSTAL CODE *60609*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *NaOH generated onsite*

PROCESS GENERATING WASTE: **inhouse waste**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS
- [x] 1 2 3

% BY VOLUME (Approx.)

TOP	*0.00*
MIDDLE	*0.00*
BOTTOM	*0.00*

VISCOSITY (If liquid present)
- [x] 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR
clear

ODOR
- NONE
- [x] MILD
- STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- [x] 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- 7 (Neutral)
- 7.1 - 12.4
- [x] >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- [x] 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- [x] 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	–	MAX	UOM
2-PROPANOL	1.0000000	–	5.0000000	%
ACETONITRILE	1.0000000	–	5.0000000	%
SODIUM HYDROXIDE	15.0000000	–	20.0000000	%
WATER	50.0000000	–	72.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G07* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W110*

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 7
PAGE: 1 OF 3

E. CONSTITUENTS

Are these values based on testing or knowledge? Knowledge ☑ Testing

If constituent concentrations are based on analytical testing, analysis must be provided. Please attach document(s) using the link on the Submit tab.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 7
PAGE: 2 OF 3

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

Clean Harbors Profile No. NaOH-A22

F. REGULATORY STATUS

☑ YES NO USEPA HAZARDOUS WASTE?

D001 D002

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES ☑ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☑ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES ☑ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (SODIUM HYDROXIDE), 3, PG II

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ☑ ONE TIME WEEKLY MONTHLY QUARTERLY YEARLY OTHER

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK DRUM
OTHER: DRUM SIZE:

☑ **BULK LIQUID**

GALLONS/SHIPMENT: ***1000.00 Min -5000.00 Max*** GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: ***0 Min - 0 Max***

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 7
PAGE: 3 OF 3

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
	Matilda	Lab Mgr	

*40 CFR Sec. 264.12 required notice:

As required by Federal Resource Conservation and Recovery Act regulations found in 40 CFR Part 264.12(b) and all equivalent State hazardous waste regulations, notice is hereby provided that all Clean Harbors facilities that may be used to treat, store, and /or dispose of the hazardous waste described on this waste profile have the appropriate permits and the capacity to manage these wastes.

Please note this profile must be submitted for re-evaluation if there has been a change in the waste generating process or when there have been changes in the chemical composition or physical characteristics of the material.

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SC3490432 SC PPW 3/3/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: ILD005450697
2. Page 1 of: 2
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 000039855 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773) 247-2828

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322260

7. Transporter 2 Company Name: Robbie D. Wood Inc — U.S. EPA ID Number: VAD067385891

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	012	DM	00660	G	D001		
	2.							
	3.							
	4.							

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 8
PAGE: 1 OF 3

14. Special Handling Instructions and Additional Information
1. FB5-inter ERG#128 12X55

TRUCK 568989

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 04 Day 28 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter signature (for exports only):

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alan Peterson — Signature — Month 04 Day 28 Year 11
Transporter 2 Printed/Typed Name: Glenn Abercrombie — Signature — Month 05 Day 03 Year 11

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Kelly Simmons — Signature — Month 5 Day 11 Year 11

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SC3553861 SC PPW 3/3/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: ILD005450697
2. Page 1 of 1
3. Emergency Response Phone: (800)483-3718
4. Manifest Tracking Number: 000039868 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773)247-2828

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: Robbie D. Wood Inc — U.S. EPA ID Number: ALD067138891

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870)863-7178
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	012	DM	00660	G	D001		
	2.							
	3.							
	4.							

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 8
PAGE: 2 OF 3

14. Special Handling Instructions and Additional Information
1.PB5-inter ERG#128 12x55

TRK 5391

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 09 Day 01 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: John Brown — Signature — Month 09 Day 01 Year 11
Transporter 2 Printed/Typed Name: John Anderson — Signature — Month 09 Day 12 Year 11

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name — Signature — Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SC3610220 SC PPW 3/3/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	ILD005450697	1 2	(800)482-3718	000039880 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773)247-2828

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name: [illegible] — U.S. EPA ID Number: [illegible]

8. Designated Facility Name and Site Address
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870)863-7173
U.S. EPA ID Number: ARD069748192

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	006	DM	00330	G	D001
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1. [illegible]-inter ERG#128 6x55

TRACT. 1206 TRL. 6142

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 06 Day 28 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: CARL PROCESSER — Signature: [signature] — Month 06 Day 28 Year 11
Transporter 2 Printed/Typed Name: [illegible] — Signature: [illegible] — Month [illegible] Day [illegible] Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

18b. Alternate Facility (or Generator) — Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 8
PAGE: 3 OF 3

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [signature] — Signature: [signature] — Month 07 Day 08 Year 11

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

[illegible] for the appropriate permits for and will accept the waste the generator is shipping.

PICK / ACKNOWLEDGEMENT FORM

 # 820318

Meyer Steel Drum, Inc.
3201 South Millard Street
Chicago IL 60623-5028

Phn: (773) 376-8376 Fax: (773) 376-7060

Doc/Order Date: 7/12/2011

Req Ship Date: 7/12/2011

Bill To:

ARGO TURBOSERVE CORP.
CITYVIEW CORPORATE CTR.
160 CHUBB AVENUE
LYNDHURST NJ 07071

Ship To:

ARGO TURBOSERVE CORP.
CLEAN HARBORS - CHSC
ANA GONZALEZ / ATC VMI ITEM
1445 W. 42ND ST. ($100 DELV CHARGE)
CHICAGO IL 60609

Customer Order No.	Customer ID	Salesperson ID	Shipping Method	Payment Terms	Site	Master No.
A00180491	1759	4	MEYER	Net 30	001	23,740

Ord Qty	Ship Qty	Description	Location
30	30	**DRN5OUN** **[DM55STLN]** New Drm-55gal-Open Hd-UN [SC], 1.2/0.9/1.2 Gauge [1A2/Y1.6/150], 2" RKE Steel Buna, 3/4"RKE Stl Bun, Unlined, 12Ga Br 5/8 n&b, 3/8 x1/2 x68 T SpngRbr [GLUED], Black [ALL]	**002**

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 9
PAGE: 1 OF 2

Driver E. R.

*** Multi-Plant Order ***

Trailer

Comments:

Date/Time Printed: 7/8/2011 11:42:49 AM

Total Pages: 1

Rcvd By: R Landa 7-12-11

meyer STEEL DRUM, INC.
2000 South Kilbourn / Chicago, Illinois 60623 / Phone (773) 522-3030 / Fax (773) 522-7360

FORM 501

Proper Closing Of A Steel Drum

How To Close A Tight Head Drum

CHECK THE PLUGS TO MAKE CERTAIN THAT THE GASKET IS PROPERLY SEATED.

CAREFULLY SCREW IN THE PLUGS TO INSURE NO CROSS THREADING.

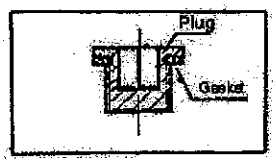
USING THE PROPER FT/LBS. TORQUE WRENCH, TIGHTEN THE PLUGS TO THE RECOMMENDED TORQUE. INSTALL CAP SEAL IF REQUIRED.

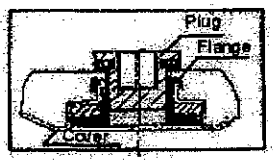
TORQUE SPECIFICATION CAN ALSO BE OBTAIN FROM THE VENDOR

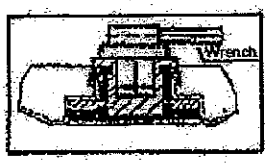
Technocraft (Tight Seal) 504-523-4785	
Steel	
3/4 Inch	2 Inch
7-14 Ft-lb's	8-14 Ft-lb's
Plastic	
3/4 Inch	2 Inch
8-12 Ft-lb's	10-20 Ft-lb's

Rieke Closures 260-925-3700	
Steel	
3/4 Inch	2 Inch
9-20 Ft-lb's	20-40 Ft-lb's
Plastic	
3/4 Inch	2 Inch
9-20 Ft-lb's	20-40 Ft-lb's

Tri-Sure Closures 630-260-8643	
Steel	
3/4 Inch	2 Inch
8-15 Ft-lb's	15-22 Ft-lb's
Plastic	
3/4 Inch	2 Inch
8-11 Ft-lb's	15-22 Ft-lb's







How To Close An Open Head Drum

A INSTALLING ORIGINAL COVER, GASKET, PLUGS AND CLOSING RING IS IMPERATIVE TO MEET ALL MANUFACTURING CERTIFICATION AND DOT REQUIREMENTS. THIS IS CRITICAL NOT ALL DRUMS ARE THE SAME IN SIZE AND TOLERANCES. MISSMATCH PARTS WILLVOID ANY MANUFACTURING CERTIFICATIONS AND CAUSE FAILURE IN THE FEILD

B INSPECT THE COVER GASKET. THE GASKET SHOULD BE SEATED PROPERLY IN ITS GROOVE ON THE COVER.

C CAREFULLY PLACE THE COVER ONTO THE DRUM CURL WITH OUT DISTURBING THE GASKET.

D INSTALL DRUM RING. ASSURING THE TOP AND BOTTOM EDGES OF RING CONTACT UPPER CURL OF COVER AND LOWER SECTION OF DRUM CURL, RESPECTIVELY.

E INSTALL THE BOLT AND NUT THROUGH THE RING LUGS.

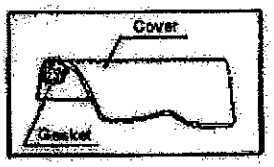
F USE A PNEUMATIC IMPACT WRENCH OR OTHER DEVICE TO TIGHTEN THE BOLT. WHILE TIGHTENING RING, USING A MINIMUM 24oz. HAMMER OR COMPARABLE DEVICE, START BRISKLY TAPPING THE RING AT THE OPPOSITE POSITION (BACK) OF BOLT ALTERNATE FROM SIDE TO SIDE, WORKING FROM BACK SIDES TOWARD THE BOLT.

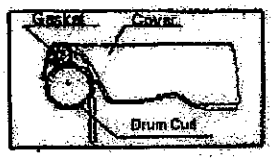
G **FOR NEW DRUMS ONLY** WHILE TAPPING THE CLOSURE RING, TORQUE THE BOLT TO 65-70 FT/LBS.

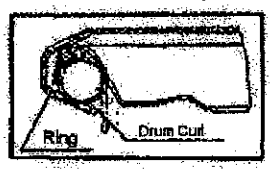
H CHECKING CLOSING RING GAP. **NEW DRUMS ONLY**, RING GAP MIN 1/8" MAX 1/4" **RECONDITION DRUMS ONLY**, CLOSURE RING GAP MIN 1/32" MAX 3/8" THE EDGE OF RINGS SHOULD NOT TOUCH.

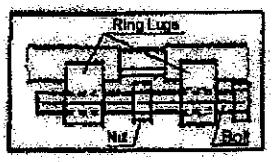
I REPEAT STEPS E & F MINIMUM OF 3 TIMES.

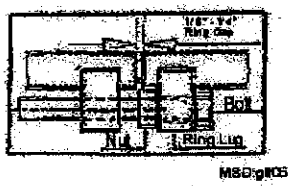
J SECURELY TIGHTEN THE JAM NUT TO THE HEAD SIDE OF THE BOLT.











MSDgif05

Form 501

Revised 7/10/2010 gfr/btm08

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 9
PAGE: 2 OF 2

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. FB5-inter

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *CALLSTATEDEPT* GENERATOR NAME: *Clean Harbors Env Services Inc*

GENERATOR CODE (Assigned by Clean Harbors) *CO* CITY *Norwell* STATE/PROVINCE *MA* ZIP/POSTAL CODE *02061*

ADDRESS *42 Longwater Drive* PHONE:

CUSTOMER CODE (Assigned by Clean Harbors) *CO* CUSTOMER NAME: *Clean Harbors Env Services Inc*

ADDRESS *42 Longwater Drive* CITY *Norwell* STATE/PROVINCE *MA* ZIP/POSTAL CODE *02061*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *FB5- SHREDDABLE DEBRIS (HAZ)*

PROCESS GENERATING WASTE: VARIES GENERIC PROFILE

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? No

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS: 1 2 3

% BY VOLUME (Approx.): TOP *0.00* MIDDLE *0.00* BOTTOM *0.00*

VISCOSITY (If liquid present): 1 - 100 (e.g. Water); 101 - 500 (e.g. Motor Oil); 501 - 10,000 (e.g. Molasses); > 10,000

COLOR: *varies*

ODOR: NONE; [x] MILD; STRONG; Describe:

BOILING POINT °F (°C): <= 95 (<=35); 95 - 100 (35-38); 101 - 129 (38-54); >= 130 (>54)

MELTING POINT °F (°C): < 140 (<60); 140-200 (60-93); [x] > 200 (>93)

TOTAL ORGANIC CARBON: <= 1%; 1-9%; [x] >= 10%

FLASH POINT °F (°C): < 73 (<23); 73 - 100 (23-38); 101 -140 (38-60); 141 -200 (60-93); > 200 (>93)

pH: <= 2; 2.1 - 6.9; [x] 7 (Neutral); 7.1 - 12.4; >= 12.5

SPECIFIC GRAVITY: < 0.8 (e.g. Gasoline); 0.8-1.0 (e.g. Ethanol); 1.0 (e.g. Water); 1.0-1.2 (e.g. Antifreeze); [x] > 1.2 (e.g. Methylene Chloride)

ASH: < 0.1; 0.1 - 1.0; 1.1 - 5.0; 5.1 - 20.0; > 20; [x] Unknown

BTU/LB (MJ/kg): < 2,000 (<4.6); 2,000-5,000 (4.6-11.6); [x] 5,000-10,000 (11.6-23.2); > 10,000 (>23.2); Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

Need Tetrahydrofuran added to list

CHEMICAL	MIN	–	MAX	UOM
ABSORBENT	0.0000000	–	100.0000000	%
BENZENE	0.0000000	–	10.0000000	%
CARBON TETRACHLORIDE	0.0000000	–	1.0000000	%
CHLOROBENZENE	0.0000000	–	1.0000000	%
CHLOROFORM	0.0000000	–	1.0000000	%
DICHLOROETHANE	0.0000000	–	1.0000000	%
FILTERS	0.0000000	–	100.0000000	%
HALOGENATED SOLVENTS	0.0000000	–	5.0000000	%
METHYL ETHYL KETONE	0.0000000	–	10.0000000	%
NON HALOGENATED SOLVENTS	0.0000000	–	10.0000000	%

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 10
PAGE: 1 OF 6

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G19* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W403*

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5	*0.5000*			
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 10
PAGE: 2 OF 6

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	☑ OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

F. REGULATORY STATUS

☑ YES NO USEPA HAZARDOUS WASTE?

D001 D002 D004 D005 D006 D007 D008 D010 D011 D012 D013 D014 D015 D016 D017 D018 D019 D020 D021 D022 D023

☑ YES NO DO ANY STATE WASTE CODES APPLY?

029L 133 135 141 162 171 181 211 212 213 214 221 223 232 252 261 272 281 291 311 331 343 351 352 461 491 512 513 541 551 611 612 723 751 MA01

Texas Waste Code OUTS403H

☑ YES NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

145B 145H 145I 145T 211H 211I 212H 212I 213I 221I 233B 241H 252L 263I H213 L03

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: This is subject to LDR.
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☑ YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

☑ YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

☑ YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

☑ YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES ☑ NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? 10.000000 Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data ☑ Knowledge Testing

Describe the knowledge : .

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NA1270, WASTE PETROLEUM OIL, 3, PG III

NA1993, WASTE COMBUSTIBLE LIQUID, N.O.S., (BAGS W\ WIPES), COMBUSTIBLE LIQUID, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY ☑ MONTHLY QUARTERLY YEARLY OTHER Other

☑ CONTAINERIZED

1-80 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET

TOTE TANK ☑ DRUM

OTHER:

DRUM SIZE: 55

BULK LIQUID

GALLONS/SHIPMENT: 0 Min -0 Max GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: 0 Min - 0 Max

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 10
PAGE: 3 OF 6

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE
pearsonl@cleanharbors.com			

This waste profile has been submitted using Clean Harbors' electronic signature system.

*40 CFR Sec. 264.12 required notice:

As required by Federal Resource Conservation and Recovery Act regulations found in 40 CFR Part 264.12(b) and all equivalent State hazardous waste regulations, notice is hereby provided that all Clean Harbors facilities that may be used to treat, store, and /or dispose of the hazardous waste described on this waste profile have the appropriate permits and the capacity to manage these wastes.

Please note this profile must be submitted for re-evaluation if there has been a change in the waste generating process or when there have been changes in the chemical composition or physical characteristics of the material.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 10
PAGE: 4 OF 6

Addendum

D. COMPOSITION

CHEMICAL	MIN	–	MAX	UOM
PAINT SOLIDS	0.0000000	–	100.0000000	%
PAINT THINNER	0.0000000	–	10.0000000	%
PPE	0.0000000	–	100.0000000	%
RAGS	0.0000000	–	100.0000000	%
TETRACHLOROETHYLENE	0.0000000	–	1.0000000	%
TRICHLOROETHYLENE	0.0000000	–	1.0000000	%

F. REGULATORY STATUS

USEPA HAZARDOUS WASTE?

D024 D025 D026 D027 D028 D029 D030 D031 D032 D033 D034 D035 D036 D037 D038 D039 D040 D041 D042 F001 F002 F003 F004 F005 F006 F008 F009 F010 F012 F019 F024 F025 F032 F034 F035 F037 F038 F039 K001 K002 K003 K004 K005 K006 K007 K008 K009 K010 K013 K014 K015 K016 K017 K018 K019 K021 K022 K023 K024 K025 K026 K027 K028 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K043 K044 K045 K046 K047 K048 K049 K050 K051 K052 K060 K061 K062 K069 K071 K073 K083 K084 K085 K086 K087 K088 K093 K094 K095 K096 K097 K099 K100 K101 K102 K103 K104 K105 K106 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K136 K141 K142 K143 K144 K145 K147 K148 K149 K150 K151 K169 K170 K171 K172 P001 P028 P031 P037 P039 P050 P062 P066 P075 P077 P089 P108 U001 U002 U003 U004 U005 U006 U007 U008 U010 U011 U012 U014 U015 U016 U017 U018 U019 U020 U021 U022 U023 U024 U025 U026 U027 U028 U029 U030 U031 U032 U033 U034 U035 U036 U037 U038 U039 U041 U042 U044 U045 U046 U047 U048 U049 U050 U051 U052 U053 U055 U056 U057 U058 U059 U060 U061 U062 U063 U064 U066 U067 U068 U069 U070 U071 U072 U073 U074 U075 U076 U077 U078 U079 U080 U081 U082 U083 U084 U085 U086 U087 U088 U089 U090 U091 U092 U093 U094 U095 U096 U097 U098 U099 U101 U102 U103 U105 U106 U107 U108 U109 U110 U111 U112 U114 U115 U116 U117 U118 U119 U120 U121 U122 U123 U124 U125 U126 U127 U128 U129 U130 U131 U132 U133 U134 U136 U137 U138 U140 U141 U142 U143 U144 U145 U146 U147 U148 U149 U150 U152 U153 U154 U155 U156 U157 U158 U159 U160 U161 U162 U163 U164 U165 U166 U167 U168 U169 U170 U171 U172 U173 U174 U176 U177 U178 U179 U180 U181 U182 U183 U184 U185 U186 U187 U188 U189 U190 U191 U192 U193 U194 U196 U197 U200 U201 U202 U203 U204 U206 U207 U208 U209 U210 U211 U213 U215 U218 U219 U220 U221 U222 U223 U225 U226 U227 U228 U234 U235 U236 U237 U238 U239 U240 U243 U244 U246 U247 U248 U249 U271 U279 U328 U353 U359 U364 U367 U372 U373 U387 U389 U394 U395 U404 U409 U410 U411

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NA1993, WASTE COMBUSTIBLE LIQUID, N.O.S., (PAINT), COMBUSTIBLE LIQUID, PG III
NA1999, WASTE ASPHALT, AT OR ABOVE ITS FLASHPOINT, 3, PG III
NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (CHROMIUM, LEAD), 9, PG III
NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (DEBRIS W/XYLENE,TOLUENE), 9, PG III
NA3082, HAZARDOUS WASTE, LIQUID, N.O.S., (LEAD), 9, PG III
UN1090, WASTE ACETONE, 3, PG II
UN1133, WASTE ADHESIVES, CONTAINING A FLAMMABLE LIQUID, 3, PG I
UN1136, WASTE COAL TAR DISTILLATES, FLAMMABLE, 3, PG II
UN1170, WASTE ETHANOL, 3, PG II
UN1170, WASTE ETHYL ALCOHOL SOLUTION, 3, PG II
UN1193, WASTE METHYL ETHYL KETONE, 3, PG II
UN1198, WASTE FORMALDEHYDE, SOLUTIONS, FLAMMABLE, 3, (8), PG III
UN1203, WASTE GASOLINE, (BENZENE), 3, PG II
UN1203, WASTE GASOLINE, 3, PG II
UN1210, WASTE PRINTING INK, 3, PG II
UN1219, WASTE ISOPROPANOL, 3, PG II
UN1219, WASTE ISOPROPYL ALCOHOL, 3, PG II
UN1223, WASTE KEROSENE, 3, PG III
UN1263, WASTE PAINT, (PAINT), 3, PG II
UN1263, WASTE PAINT, 3, PG II
UN1266, WASTE PERFUMERY PRODUCTS WITH FLAMMABLE SOLVENTS, 3, PG II
UN1268, WASTE PETROLEUM DISTILLATES, N.O.S., (PETROLEUM ASPHALT,MINERAL SPIRITS), 3, PG I
UN1289, WASTE SODIUM METHYLATE SOLUTIONS, 3, (8), PG II
UN1294, WASTE TOLUENE, 3, PG II
UN1299, WASTE TURPENTINE, 3, PG III
UN1307, WASTE XYLENES, 3, PG II
UN1325, WASTE FLAMMABLE SOLID, ORGANIC, N.O.S., (ALCOHOL SOLIDS), 4.1, PG II

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 10
PAGE: 5 OF 6

UN1325, WASTE FLAMMABLE SOLID, ORGANIC, N.O.S., (ALCOHOL SOLIDS), 4.1, PG III
UN3261, WASTE CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., (DEBRIS), 8, PG III
UN3262, WASTE CORROSIVE SOLID, BASIC, INORGANIC, N.O.S., (SODIUM HYDROXIDE), 8, PG III
UN3263, WASTE CORROSIVE SOLID, BASIC, ORGANIC, N.O.S., (DEBRIS, SOLVENTS), 8, PG II
UN3288, WASTE TOXIC SOLID, INORGANIC, N.O.S., (LEAD), 6.1, PG II
UN1325, WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., (GASOLINE), 4.1, PG III
UN1325, WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., (METHYL ETHYL KETONE), 4.1, PG II
UN1325, WASTE FLAMMABLE SOLIDS, ORGANIC, N.O.S., (MINERAL SPIRITS), 4.1, PG III
UN1328, WASTE HEXAMETHYLENETETRAMINE, 4.1, PG III
UN1334, WASTE NAPHTHALENE, CRUDE OR NAPHTHALENE, REFINED, 4.1, PG III
UN1362, WASTE CARBON, ACTIVATED, 4.2, PG III
UN1593, WASTE DICHLOROMETHANE, 6.1, PG III
UN1710, WASTE TRICHLOROETHYLENE, 6.1, PG III
UN1756, WASTE CHROMIC FLUORIDE, SOLID, 8, PG II
UN1759, WASTE CORROSIVE SOLIDS, N.O.S., (TETRAMETHYL AMMONIUM HYDROXIDE), 8, PG II
UN1856, WASTE RAGS, OILY, (OILY RAGS), 4.2, PG III
UN1863, WASTE FUEL, AVIATION, TURBINE ENGINE, 3, PG III
UN1866, WASTE RESIN SOLUTION, FLAMMABLE, (DIMETHYLFORMAMIDE, METHYL ETHYL KETONE), 3, PG II
UN1866, WASTE RESIN SOLUTION, FLAMMABLE, 3, PG II
UN1897, WASTE TETRACHLOROETHYLENE, 6.1, PG III
UN1915, WASTE CYCLOHEXANONE, 3, PG III
UN1987, WASTE ALCOHOLS, N.O.S, (ALCOHOL SOLUTIONS), 3, PG I
UN1992, WASTE FLAMMABLE LIQUIDS, TOXIC, N.O.S., (D001, D035), 3, (6.1), PG I
UN1993, WASTE FLAMMABLE LIQUID, N.O.S., (ETHYL ACETATE, RESIN), 3, PG II
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (DIESEL), 3, PG II
UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II
UN2074, WASTE ACRYLAMIDE, SOLID, 6.1, PG III
UN2213, WASTE PARAFORMALDEHYDE, 4.1, PG III
UN2319, WASTE TERPENE HYDROCARBONS, N.O.S., 3, PG III
UN2557, WASTE NITROCELLULOSE, WITH NOT MORE THAN 12.6 PERCENT NITROGEN, BY DRY MASS, OR NITROCELLULOSE MIXTURE WITH PIGMENT OR NITROCELLULOSE MIXTURE WITH PLASTICIZ, 4.1, PG II
UN2588, WASTE PESTICIDES, SOLID, TOXIC, N.O.S., (ENDRIN, LINDANE), 6.1, PG III
UN2810, WASTE TOXIC LIQUIDS, ORGANIC, N.O.S, (TETRACHLOROETHYLENE), 6.1, PG I
UN2811, WASTE TOXIC SOLIDS, ORGANIC, N.O.S., (CHLOROFORM), 6.1, PG III
UN2921, WASTE CORROSIVE SOLIDS, FLAMMABLE, N.O.S., (AMINE), 8, (4.1), PG II
UN2925, WASTE FLAMMABLE SOLIDS, CORROSIVE, ORGANIC, N.O.S., (N-BUTYLAMINE), 4.1, (8), PG II
UN2926, WASTE FLAMMABLE SOLID, TOXIC, ORGANIC, N.O.S., (AROMATIC SILIPHATIC HYDRCARBONS), 4.1, (6.1), PG II
UN2926, WASTE FLAMMABLE SOLIDS, TOXIC, ORGANIC, N.O.S., (ACETONE, CARBON TETRACHLORIDE), 4.1, (6.1), PG II
UN2926, WASTE FLAMMABLE SOLIDS, TOXIC, ORGANIC, N.O.S., (D001,ACETONE,CHROME), 4.1, (6.1), PG II
UN2930, WASTE TOXIC SOLIDS, FLAMMABLE, ORGANIC, N.O.S., (CADMIUM, LEAD), 6.1, (4.1), PG II
UN3066, WASTE PAINT RELATED MATERIAL, 8, PG III
UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (XYLENE), 9, PG III
UN3077, WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (ACETONE), 9, PG III
UN3175, WASTE SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., (ACETONE), 4.1, PG II
UN3175, WASTE SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., (ACETONE, ISOPROPANOL), 4.1, PG II
UN3175, WASTE SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., (RAGS W/ SOLVENT/INK), 4.1, PG II
UN3175, WASTE SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S., (XYLENE, N-BUTYL ACETATE), 4.1, PG II
UN3176, WASTE FLAMMABLE SOLID, ORGANIC, MOLTEN, N.O.S., (BUTYL ACETATE), 4.1, PG III
UN3178, WASTE FLAMMABLE SOLID, INORGANIC, N.O.S., (FILTER SOCKS), 4.1, PG III
UN3179, WASTE FLAMMABLE SOLID, TOXIC, INORGANIC, N.O.S., (ISOPROPYL ALCOHOL), 4.1, (6.1), PG II
UN3243, WASTE SOLIDS CONTAINING TOXIC LIQUID, N.O.S., (RHODAMINE), 6.1, PG II
UN3244, WASTE SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S., (DISODIUM PHOSPHATE, FORMALDEHYDE), 8, PG II
UN3259, WASTE AMINES, SOLID, CORROSIVE, N.O.S., (DIETHYLENE TRIAMINE), 8, PG II
UN3260, WASTE CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S., (DEBRIS, GLASSWARE W/HYDROCHLORIC ACID), 8, PG II

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 10
PAGE: 6 OF 6

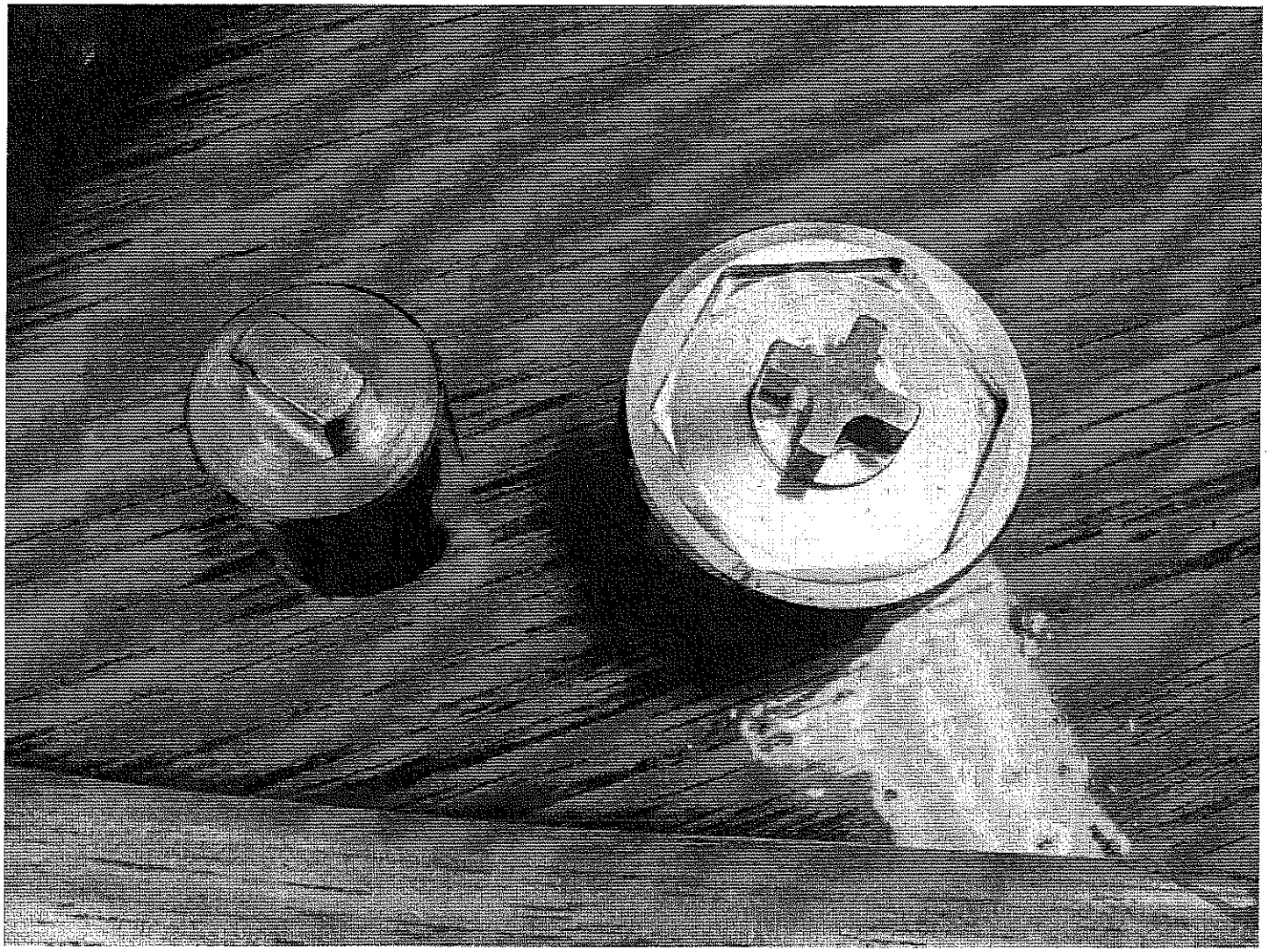
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	11
Page Number:	1 of 9

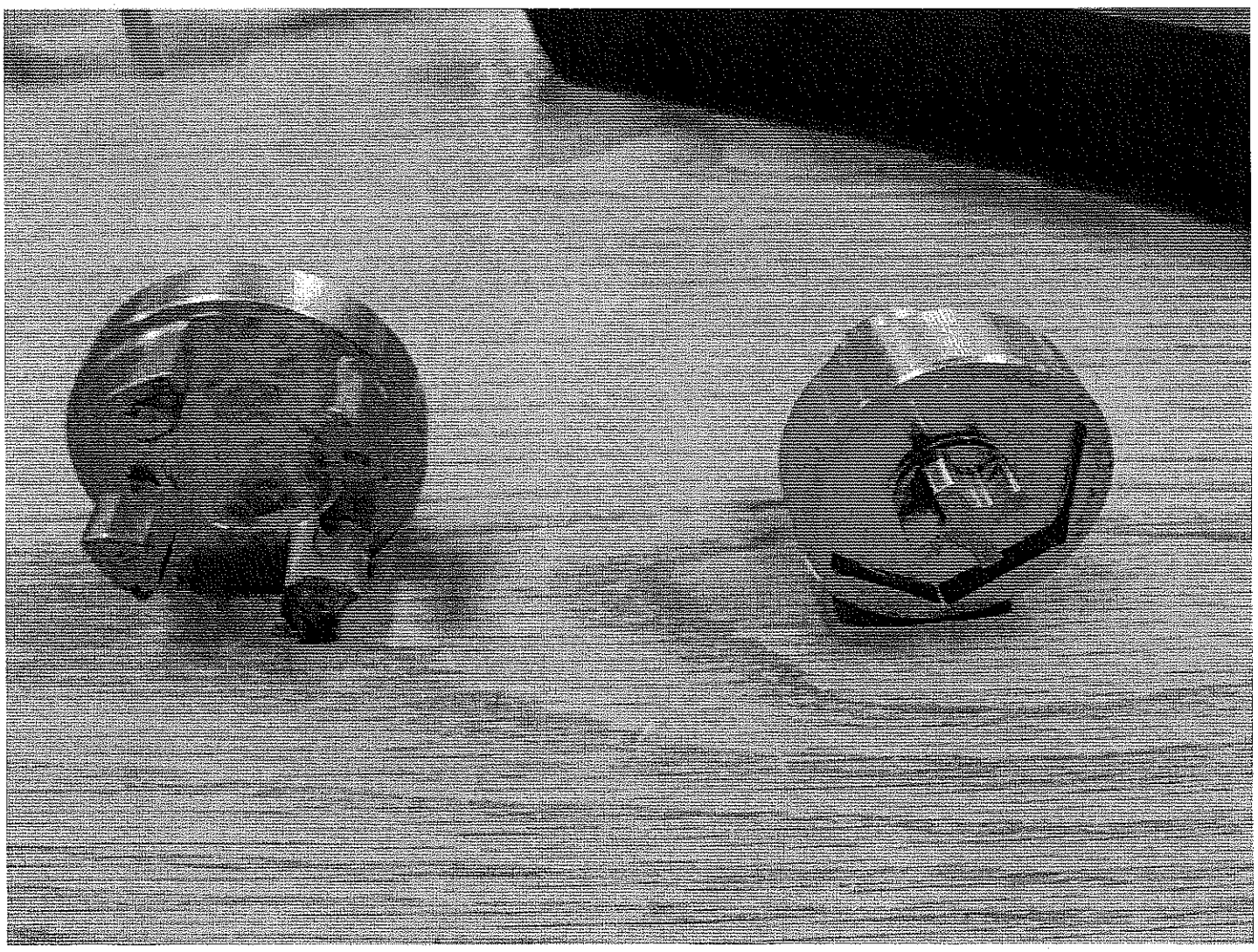
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



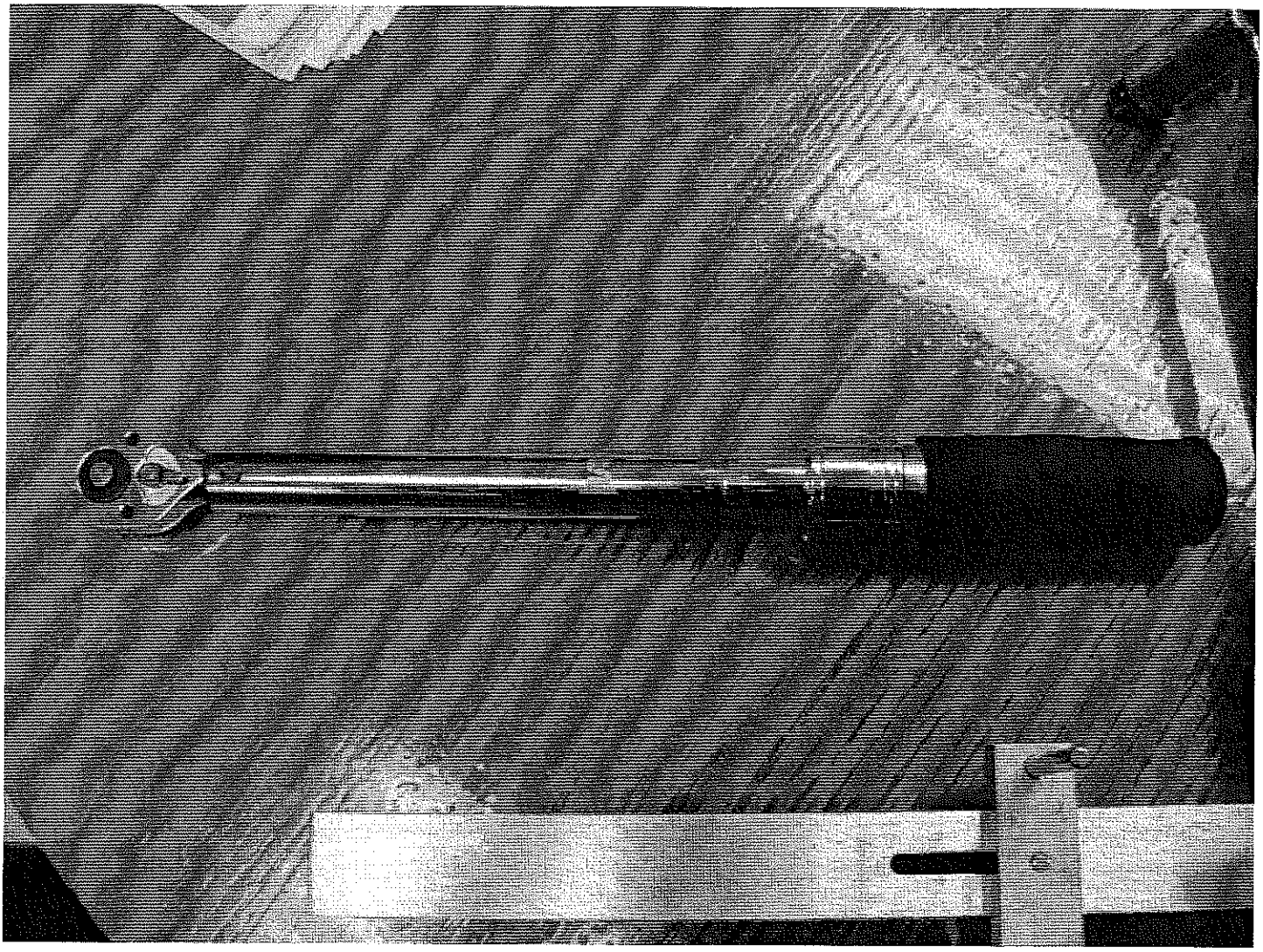
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



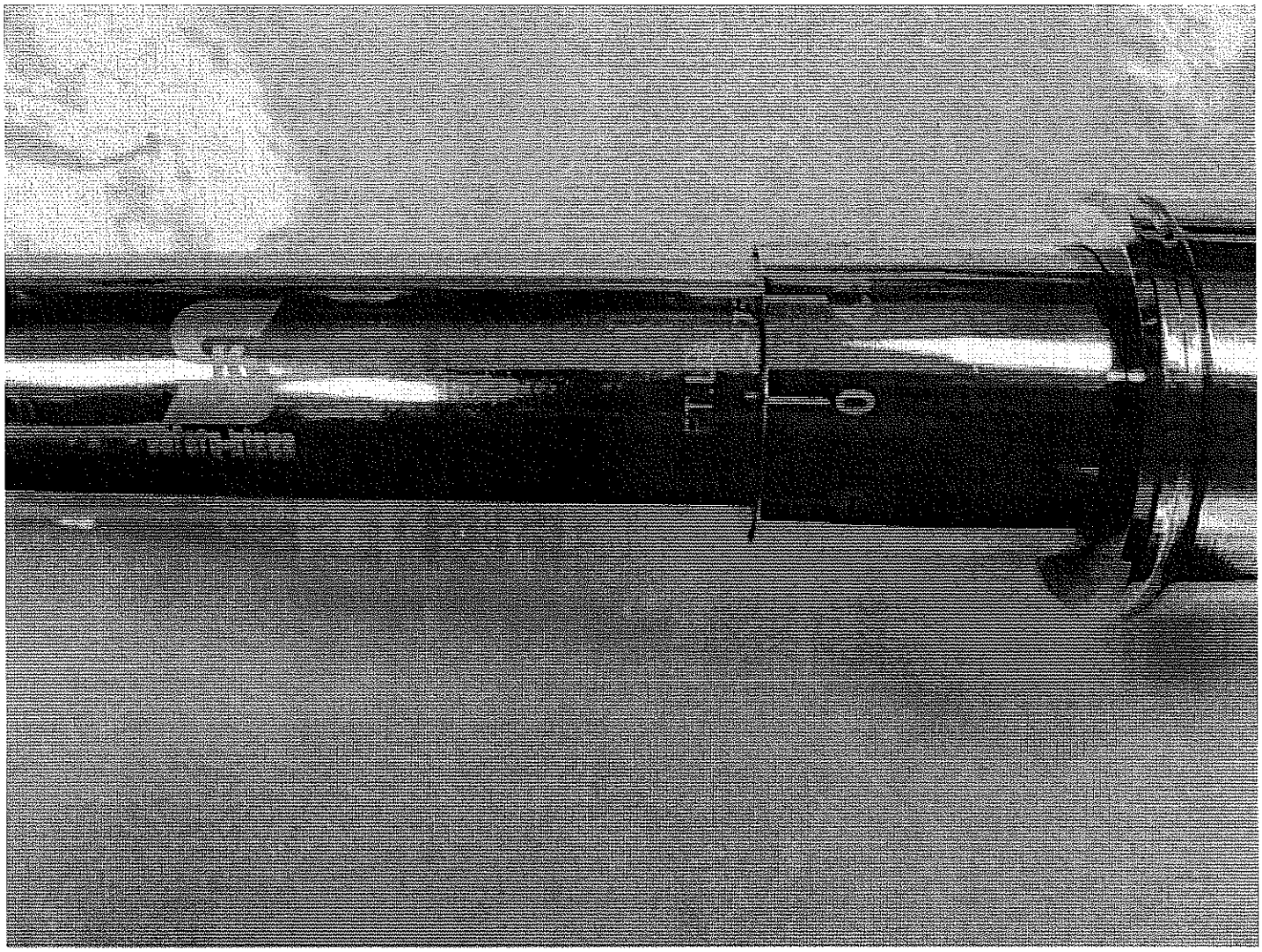
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	11
Page Number:	4 of 9

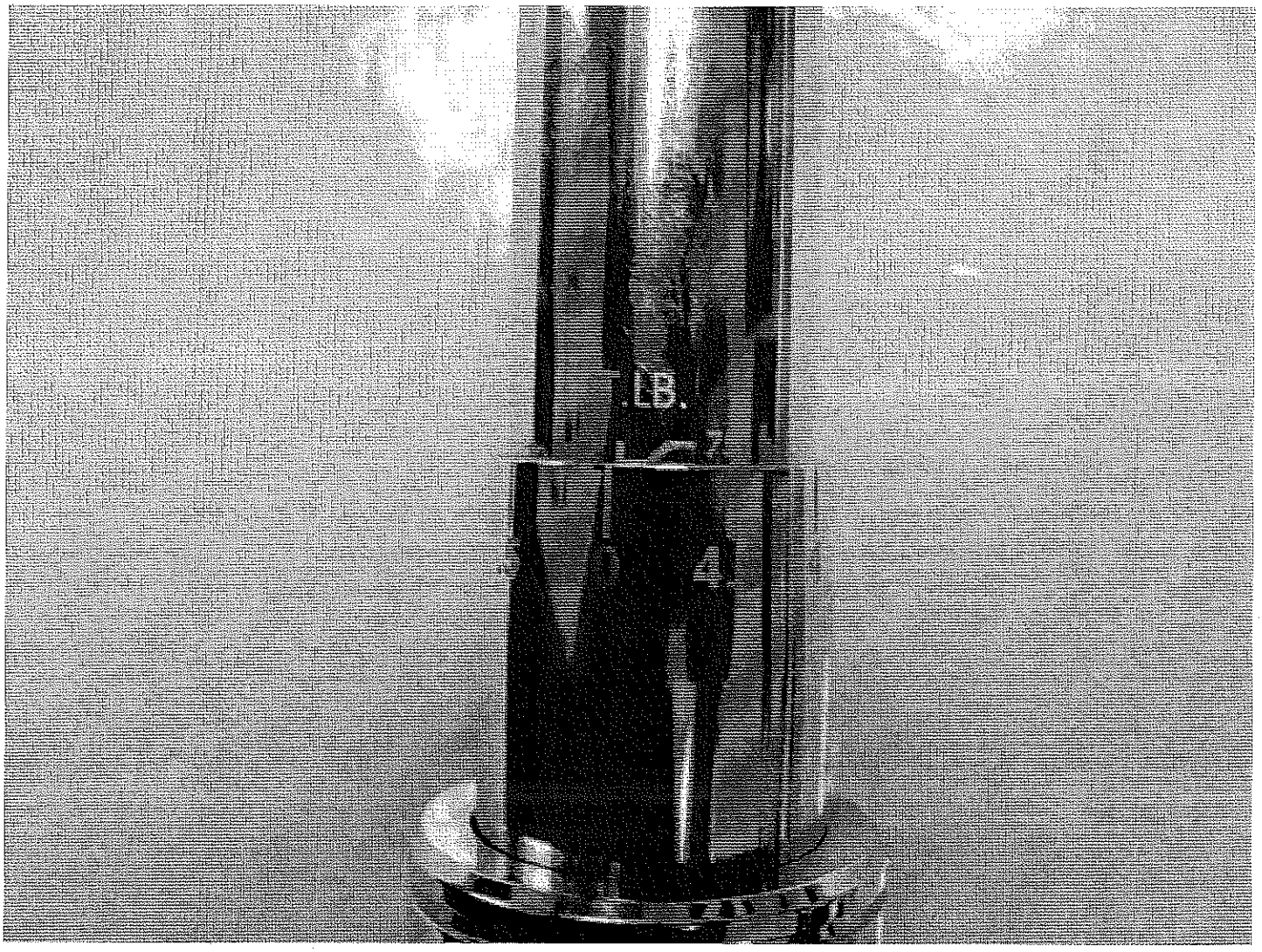
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	11
Page Number:	5 of 9

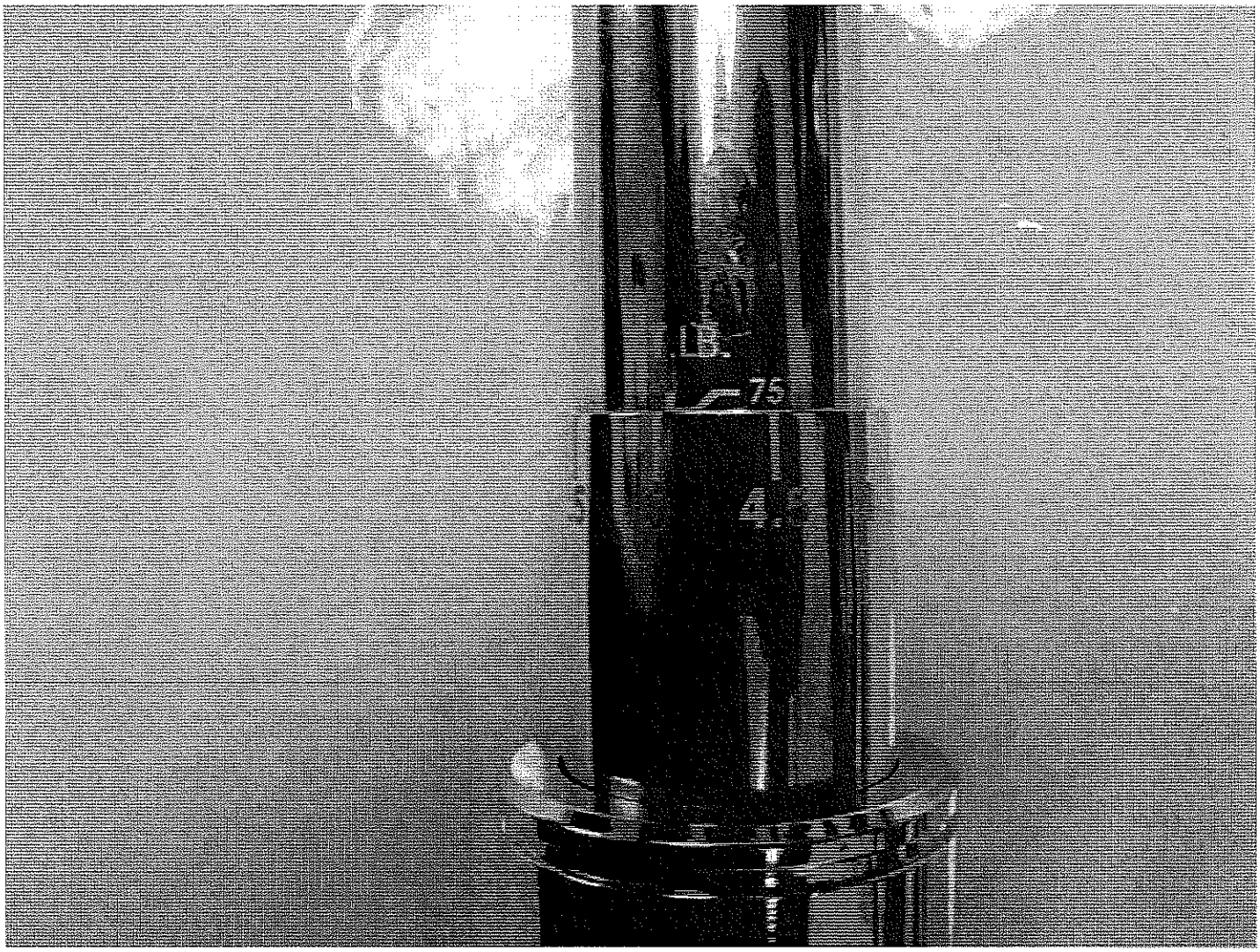
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	11
Page Number:	6 of 9

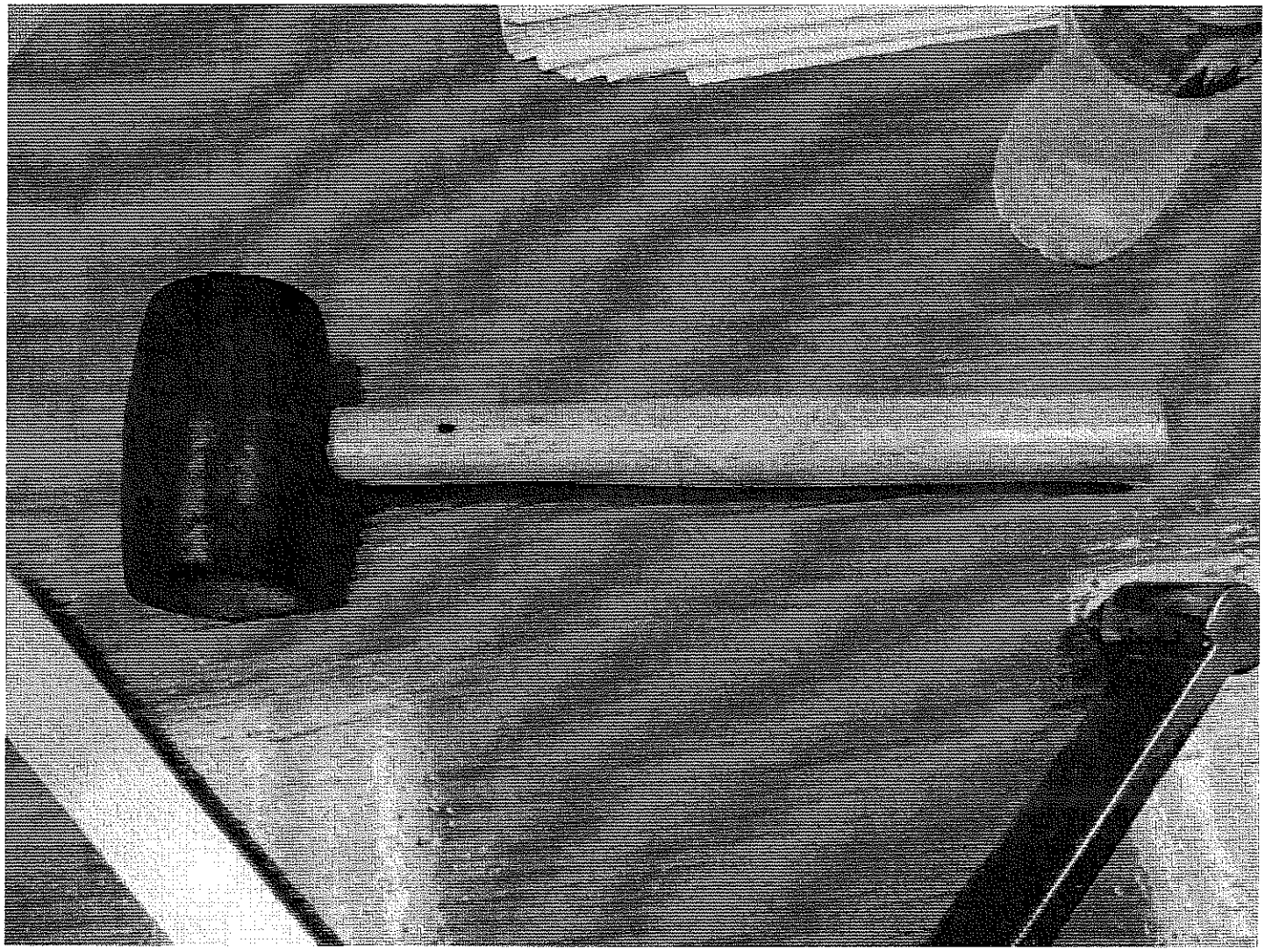
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



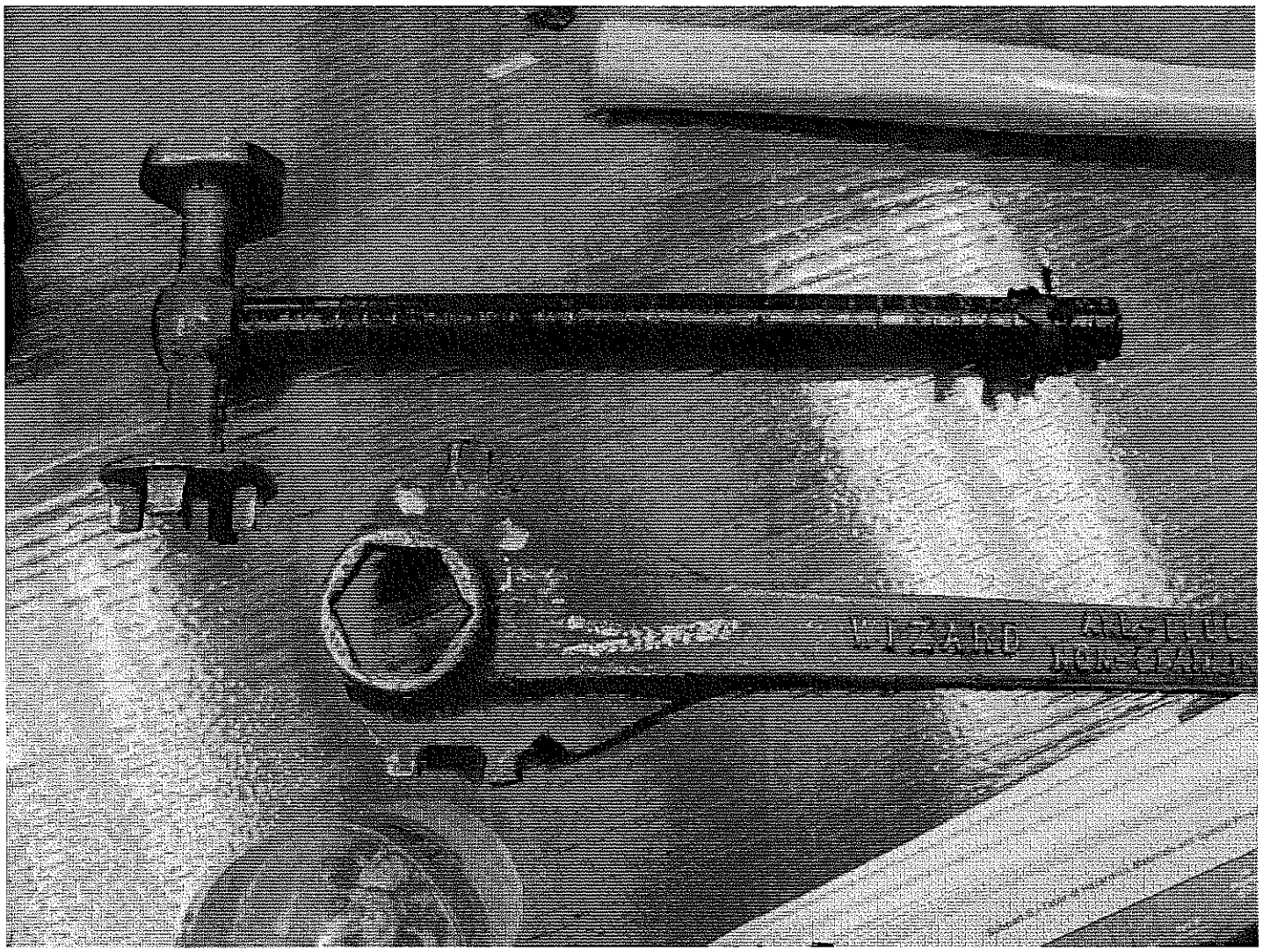
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	11
Page Number:	8 of 9

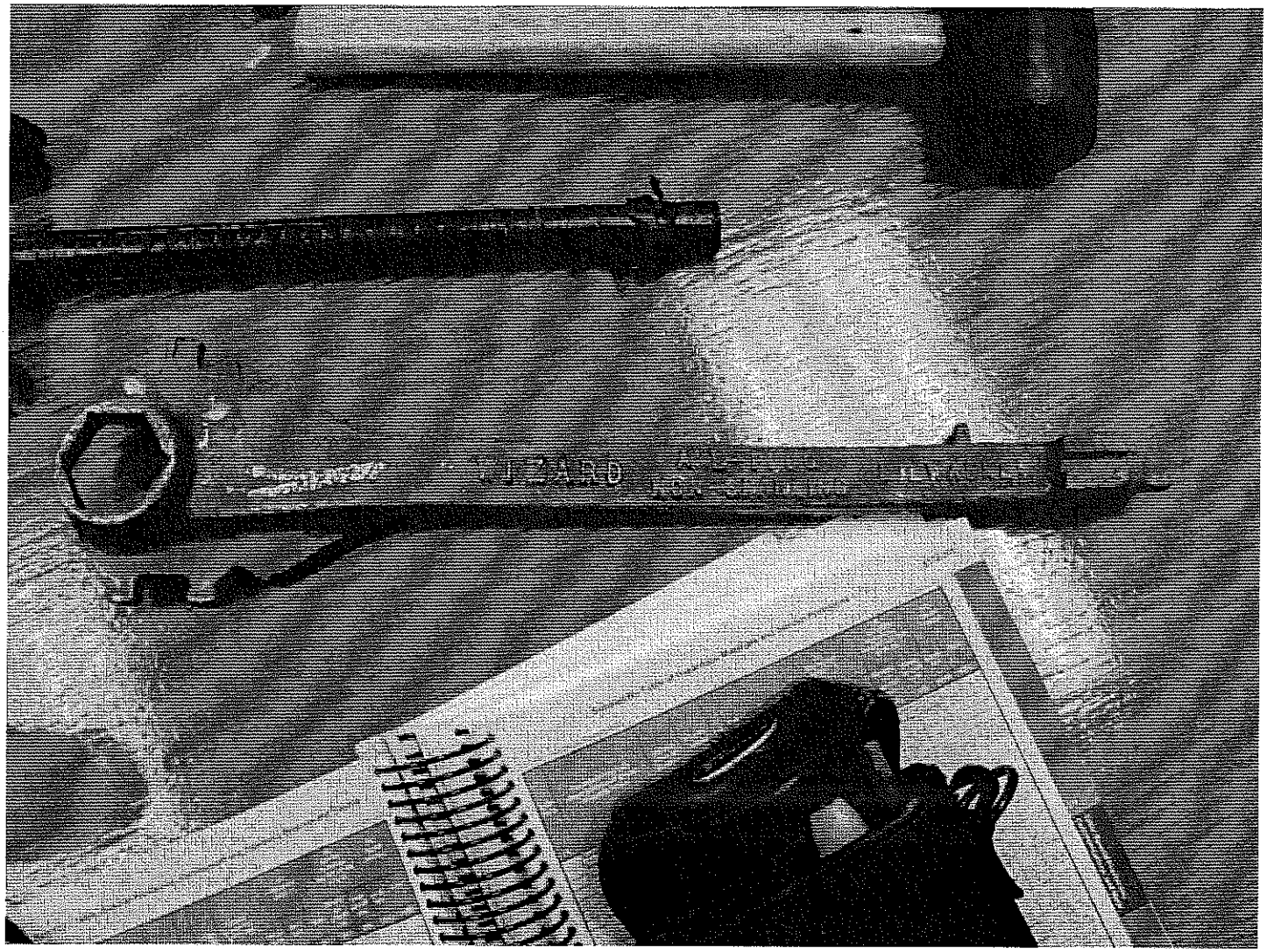
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	11
Page Number:	9 of 9

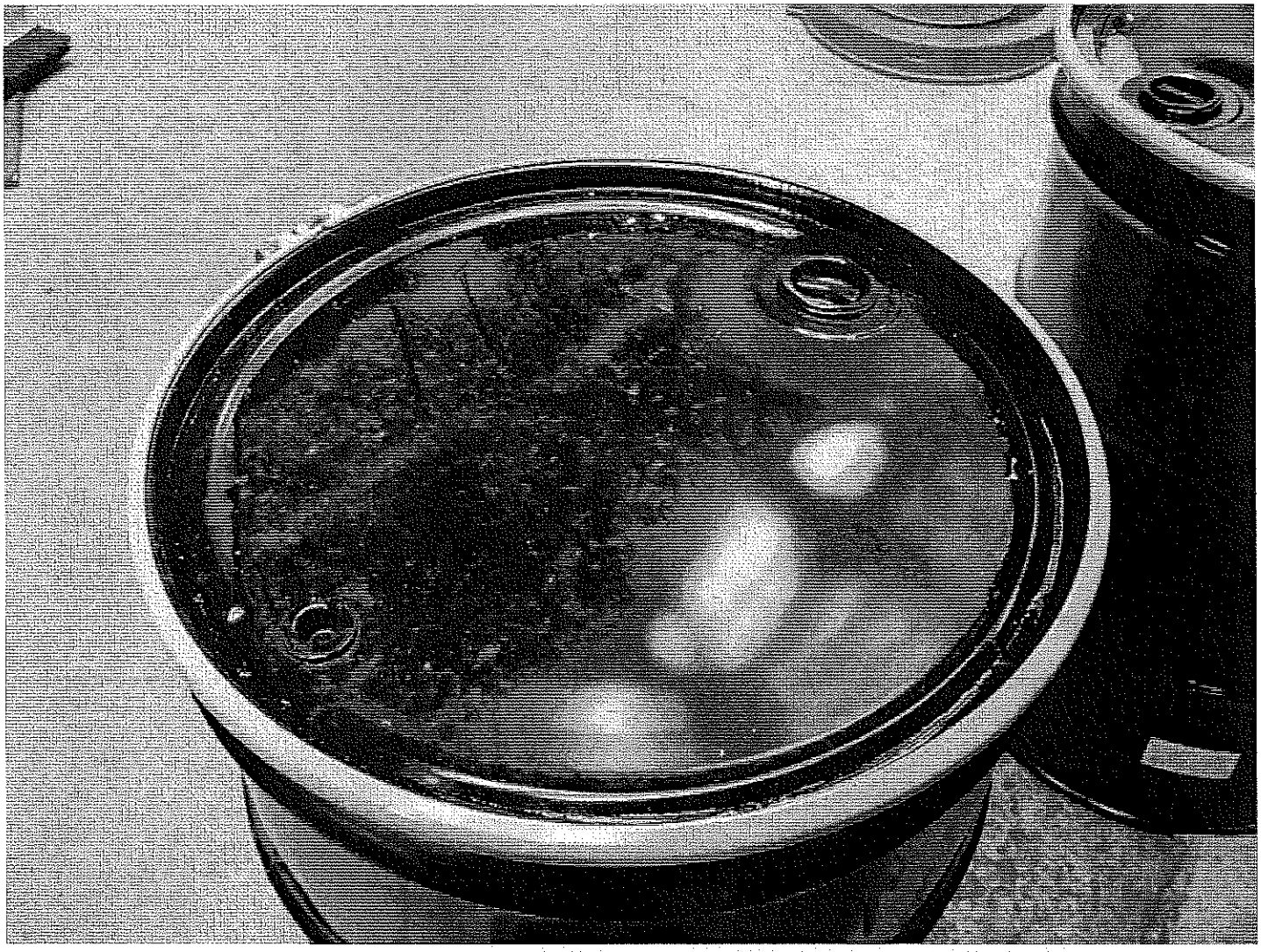
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



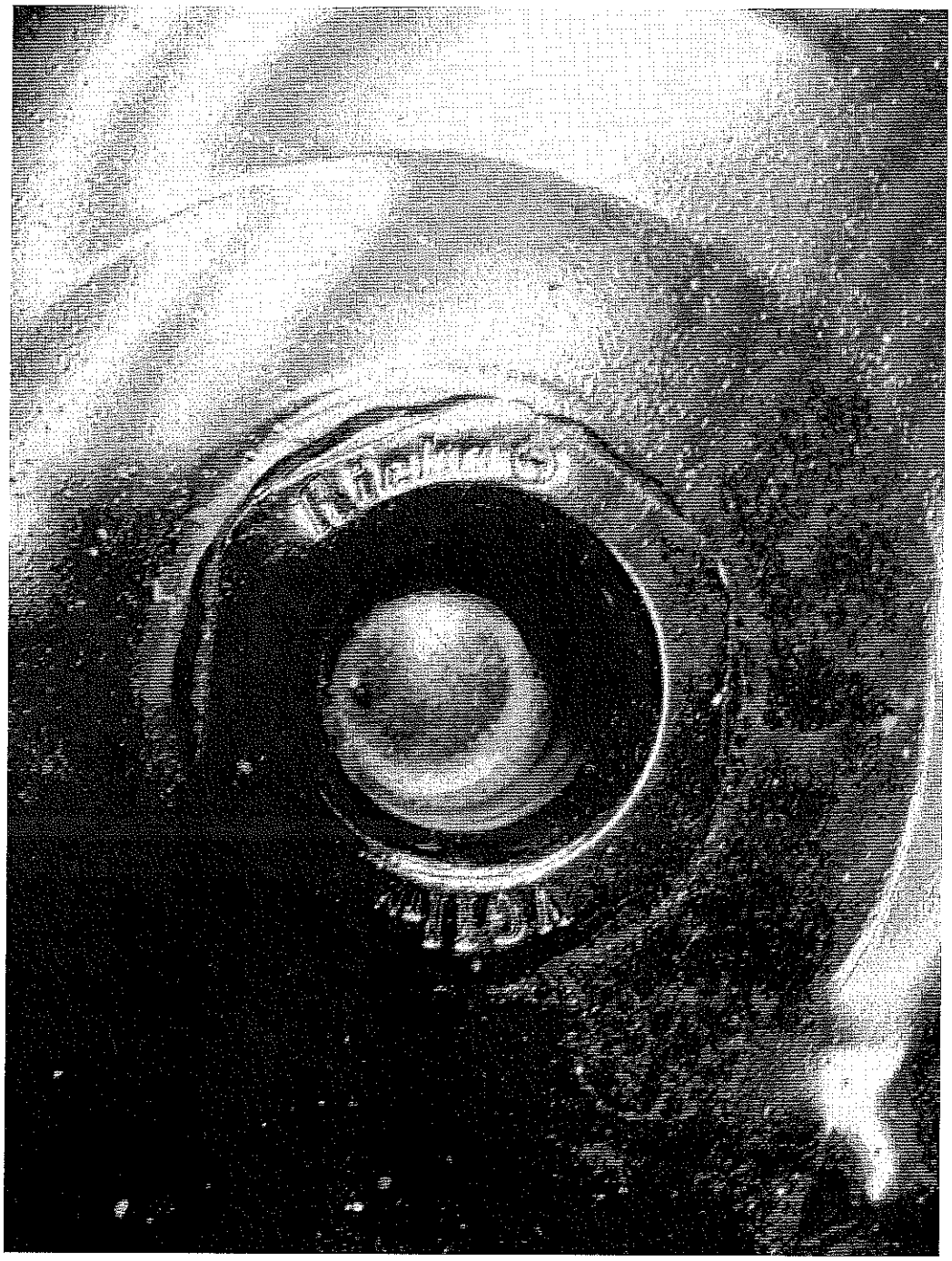
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	12
Page Number:	2 of 10

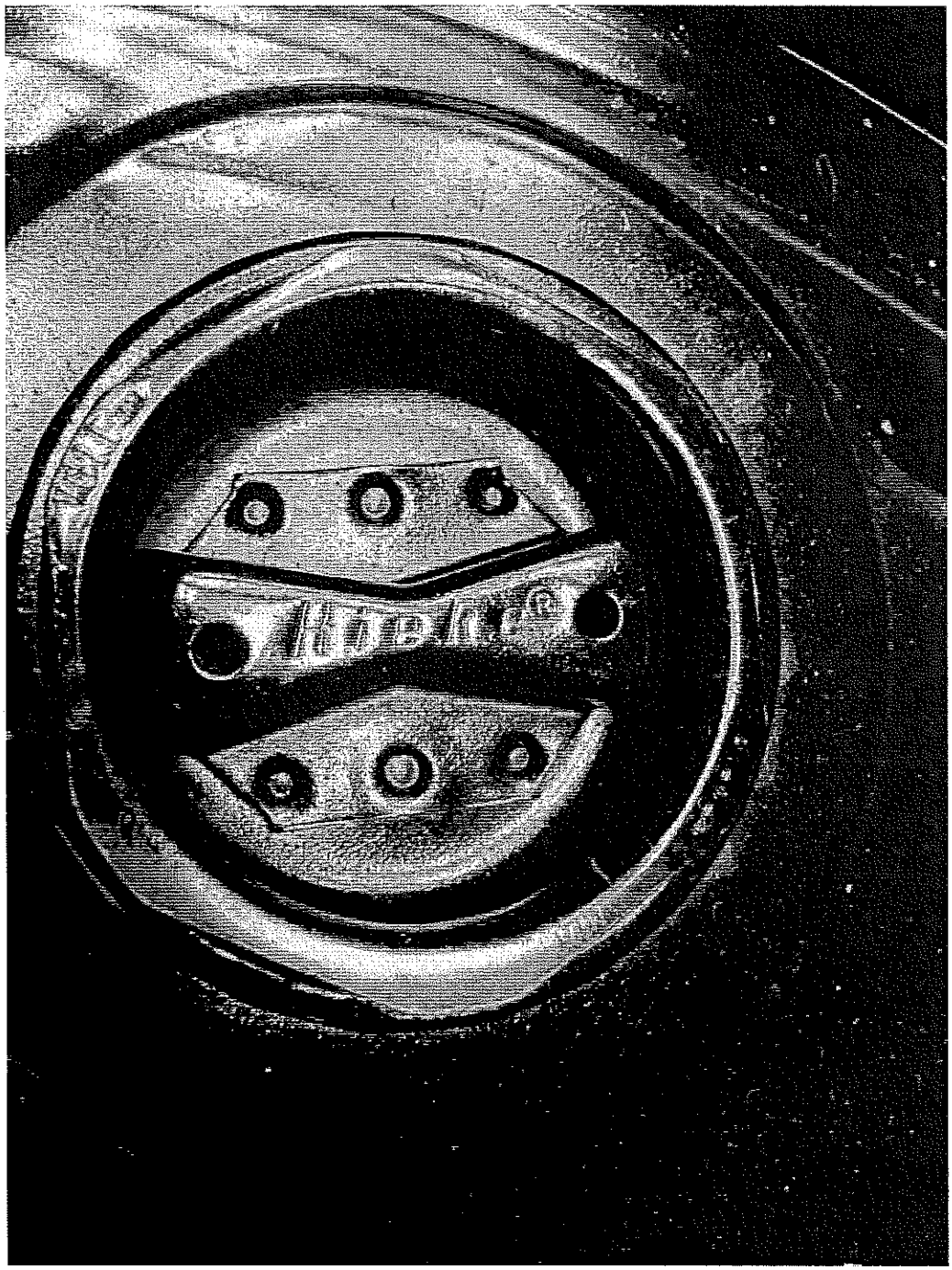
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	12
Page Number:	3 of 10

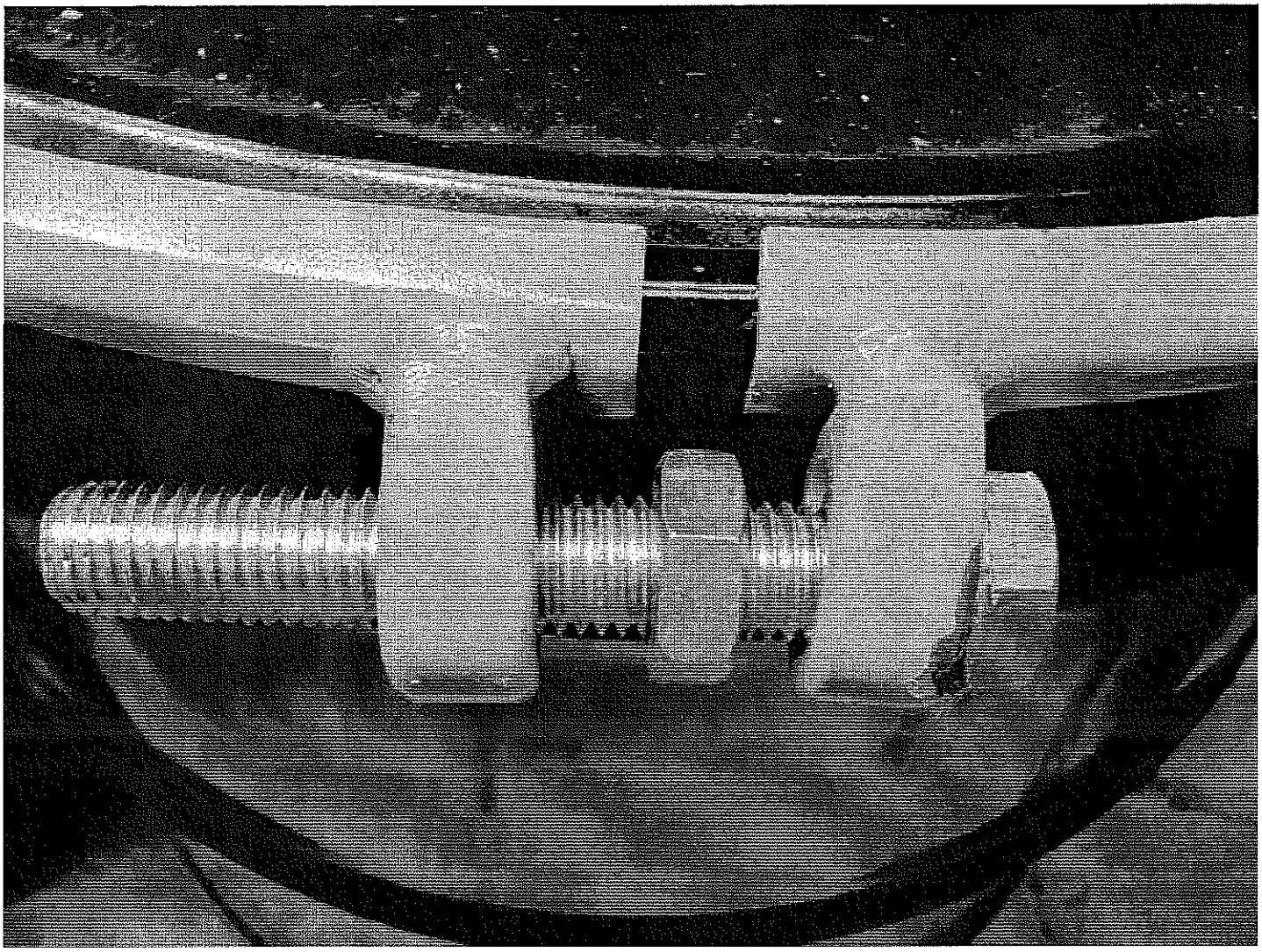
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



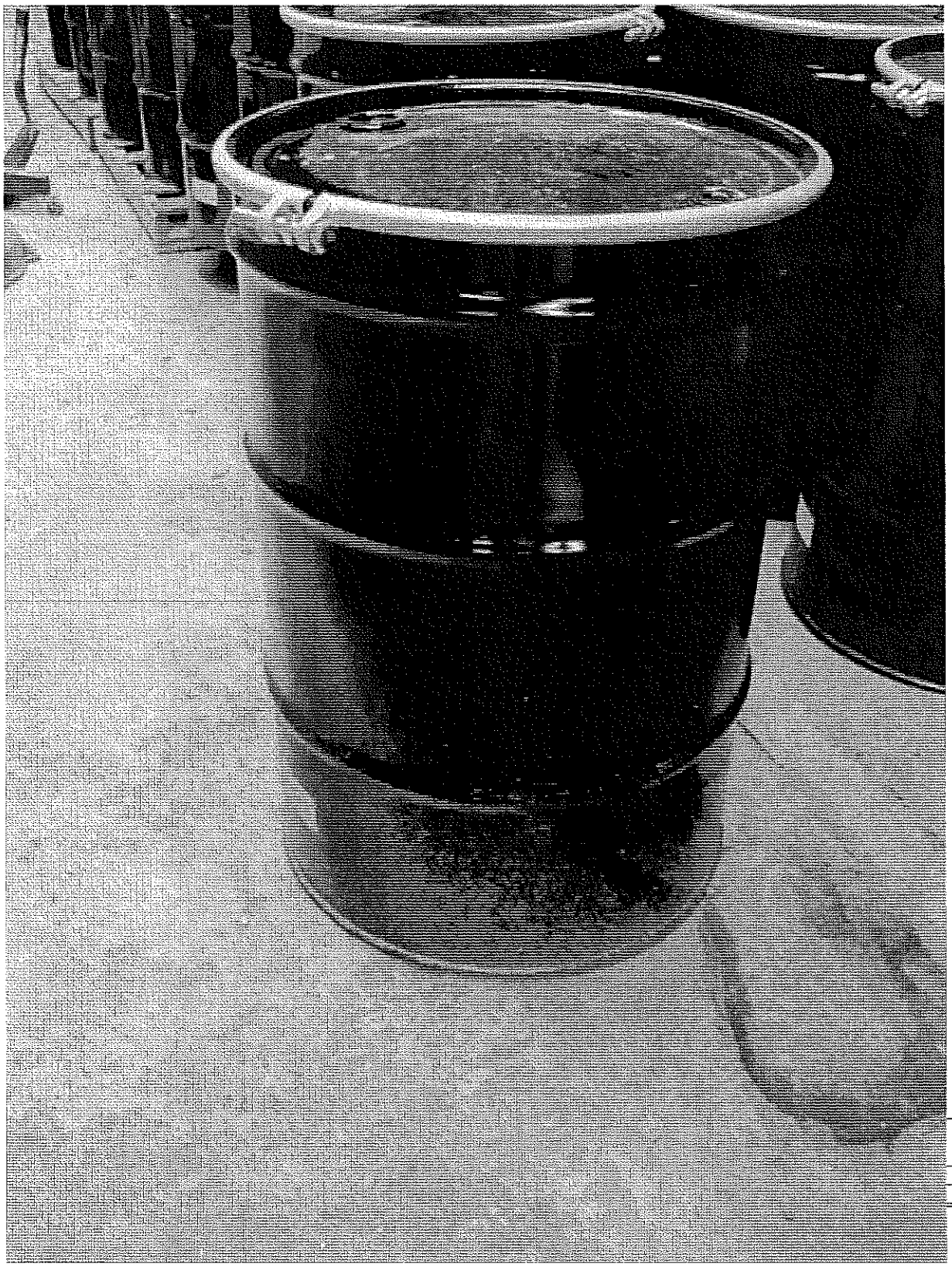
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



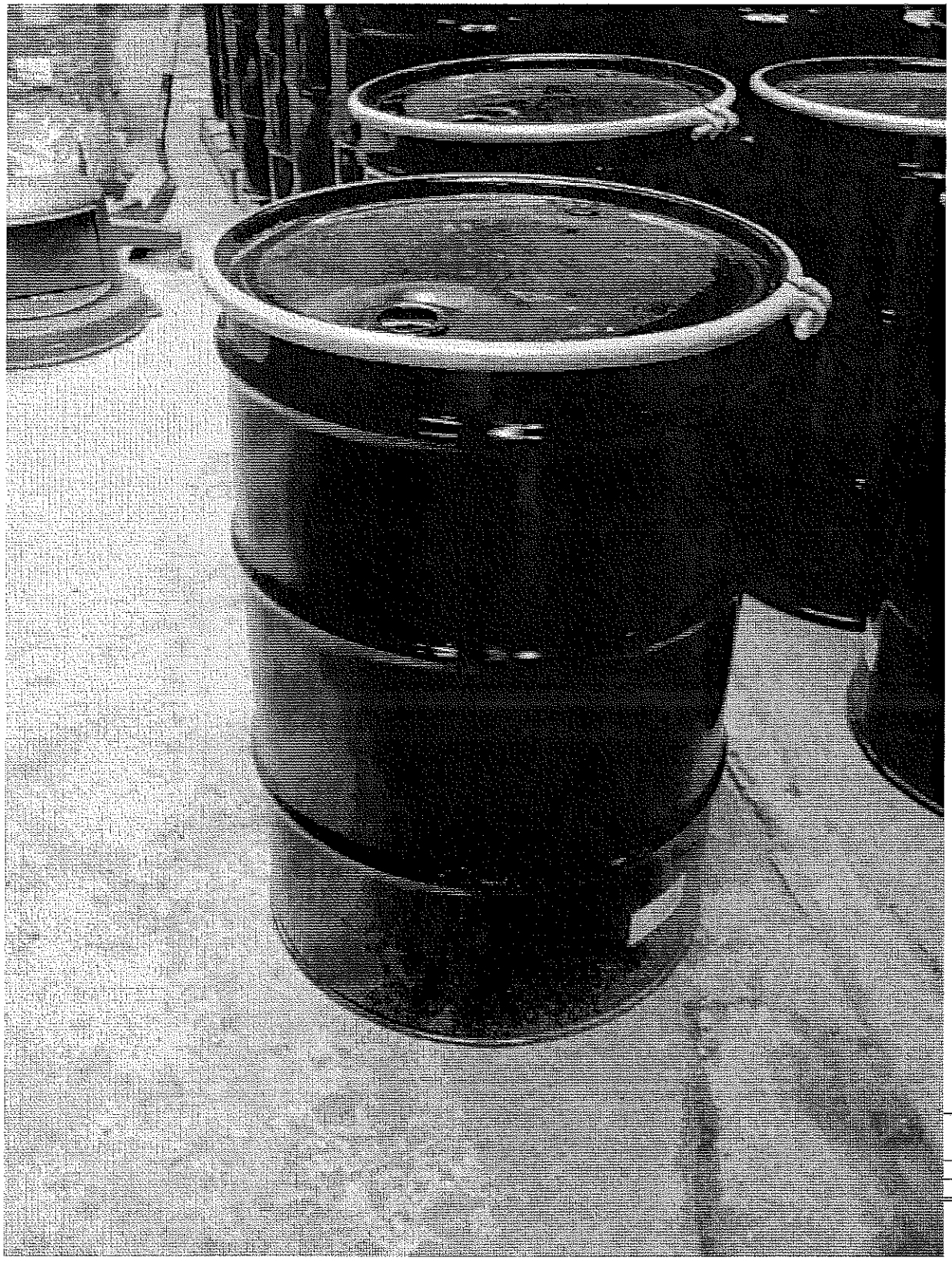
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



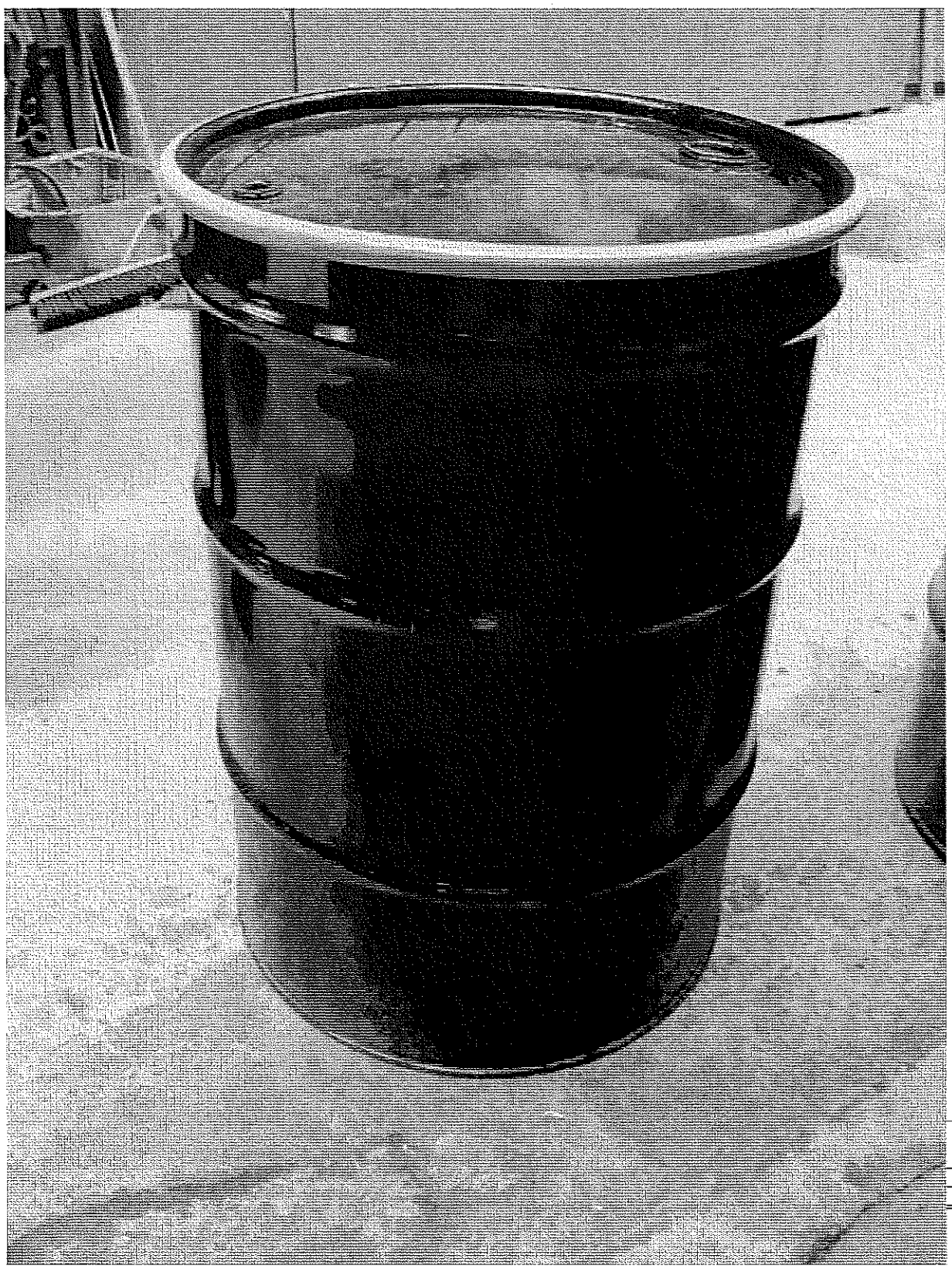
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



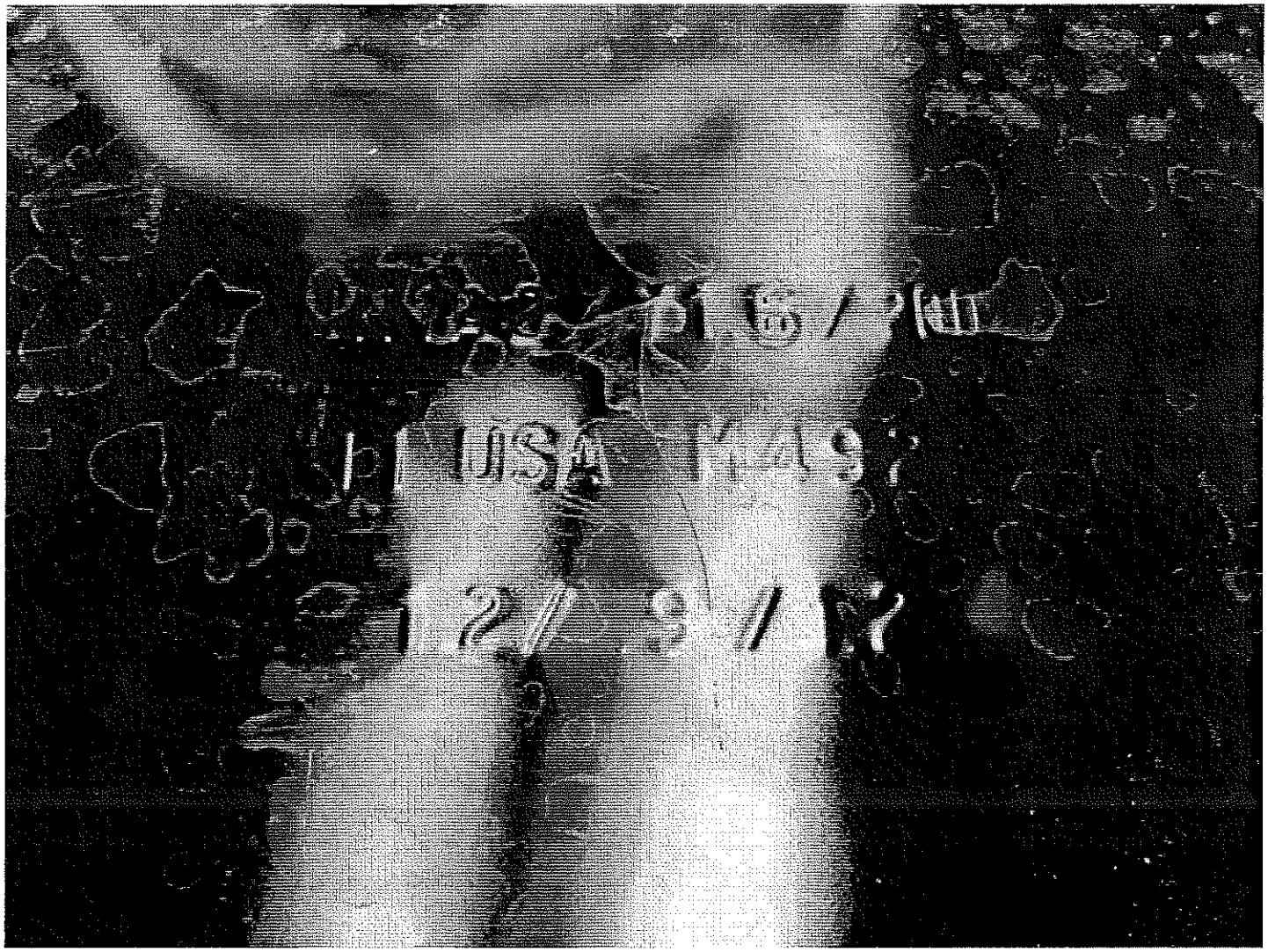
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	12
Page Number:	8 of 10

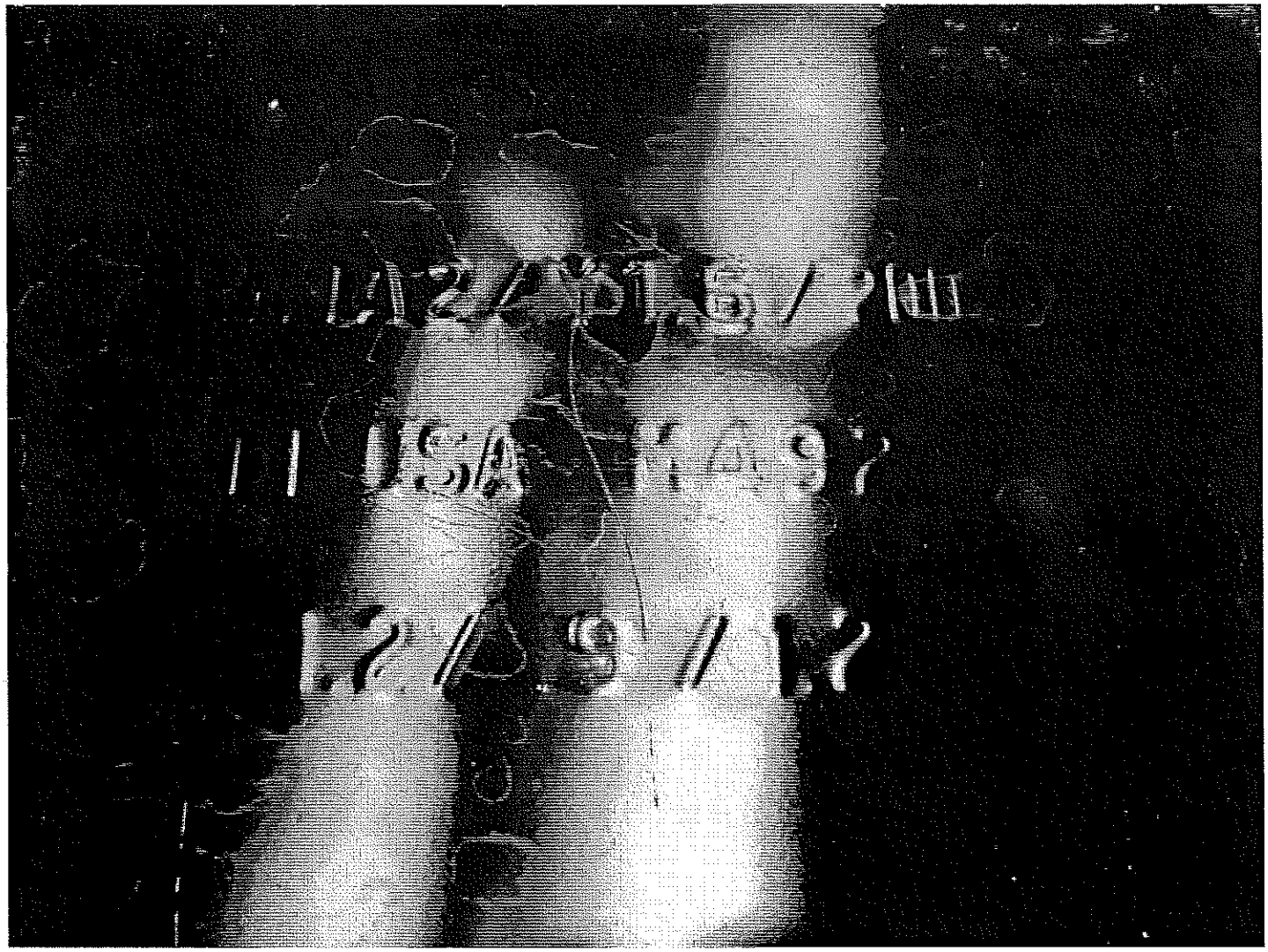
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	12
Page Number:	9 of 10

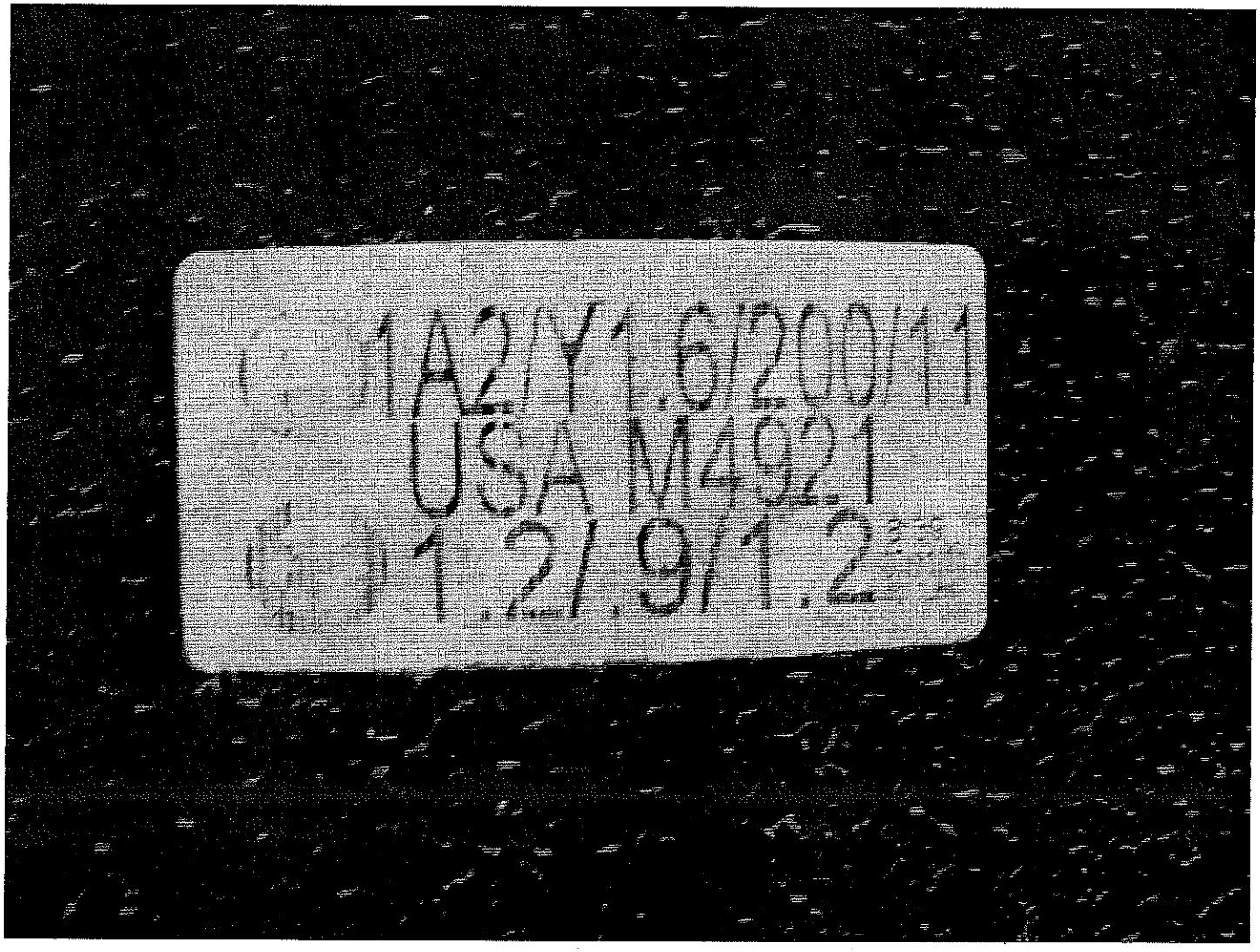
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	12
Page Number:	10 of 10

Site Address : SAME

SC PPW 10/26/2010 WORK ORDER NO. A13208452

DOCUMENT NO. 341813 **STRAIGHT BILL OF LADING**

TRANSPORTER 1 CENTRAL TRANSPORT VEHICLE ID # 47-0055

EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____

EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY			SHIPPER		
Daikin America Inc			Clean Harbors Recycling Services of Chicago, LLC		
FACILITY EPA ID #			SHIPPER EPA ID #		
ALD983192253			ILD005450697		
ADDRESS			ADDRESS		
905 State Docks Road			1445 W 42nd Street		
CITY	STATE	ZIP	CITY	STATE	ZIP
Decatur	AL	35601	Chicago	IL	60609

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
10	TP	x	A. UN2052, DIPENTENE, 3, PG III	2,625	GALS
			B.	19,110	LBS
			C.		
			D.		
			E.		
			F.		
			G.		
			H.		

WWW.CENTRALTRANSPORT.COM
Driver's Signature Only Acknowledges Receipt of Freight
121-837-275-5
SHIPPER LABEL
CENTRAL TRANSPORT

SPECIAL HANDLING INSTRUCTIONS

A.17305ERG# 128 9@275 1@150

EMERGENCY PHONE #: (800) 483-3718

GENERATOR PHONE#:(773) 247-2828

Pallet saver rate;10 totes shipped as 10 pallets,po0000014749.Third party bill to:Service Chemical LLC, Acct AC Ocean, 221 Sutton St., North Andover, MA 01845.

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	PRINT	SIGN	DATE
SHIPPER	Ron Pawlak	[signature]	11-29-10
TRANSPORTER 1	Robert Little	Robert Little	11-27-10
TRANSPORTER 2			
RECEIVED BY			

JMW A1106452

CHI 107

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 13
PAGE: 1 OF 2

Site Address : SAME

SC PPW 10/26/2010
WORK ORDER NO. A13410797

DOCUMENT NO. 341916

STRAIGHT BILL OF LADING

TRANSPORTER 1 CENTRAL TRANSPORT VEHICLE ID # 470115

EPA ID # TRANS. 1 PHONE

TRANSPORTER 2 VEHICLE ID #

EPA ID # TRANS. 2 PHONE

DESIGNATED FACILITY Daikin America Inc	SHIPPER Clean Harbors Recycling Services of Chicago, LLC
FACILITY EPA ID # ALD983192253	SHIPPER EPA ID # ILD005450697
ADDRESS 905 State Docks Road	ADDRESS 1445 W 42nd Street
CITY Decatur STATE AL ZIP 35601	CITY Chicago STATE IL ZIP 60609

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
5	TP	X	A. UN2052, DIPENTENE, 3, PG III	1200	GALS
			B.	8700	LBS
			C. U.S. DOT/PHMSA/OHME/CE		
			D. REPORT NUMBER: 11242024		
			EXHIBIT NUMBER: 13		
			E. PAGE: 2 OF 2		
			F.		
			G. 121-9965408-3 BL Pg 2		
			H.		

SPECIAL HANDLING INSTRUCTIONS EMERGENCY PHONE #: (800) 483-8718 GENERATOR PHONE #: (773) 247-2828
A.17305ERG# 128
Pallet Saver Rate: 5 totes shipped as 5 pallets. Bill to Service Chemical, LLC, Acct AC Ocean, 221 Sutton St., North Andover, MA. PO 0000015313

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT RAUL G. SIGUENZA	SIGN	DATE 3-17-11
TRANSPORTER 1	PRINT Robert Little	SIGN Robert Little	DATE 3/17/11
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT	SIGN	DATE

Inv A1173185 1

CHI 107

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	DAIKEN TERPENE
Version #	01
Revision date	09-29-2010
Product use	Tolling.
Manufacturer/Supplier	Clean Harbors Recycling Services of Chicago, LLC 1445 W. 42nd Street Chicago, IL 60609 www.cleanharbors.com General Information: 1 773-247-2828
Emergency	24-Hour Emergency: 1 800-645-8265

2. Hazards Identification

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 1 OF 10

Physical state	Liquid.
Appearance	Clear liquid.
Emergency overview	WARNING FLAMMABLE LIQUID AND VAPOR. Will be easily ignited by heat, spark or flames. Harmful if swallowed. Irritating to eyes and mucous membranes.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Eyes. Skin. Inhalation.
Eyes	Causes eye irritation on direct contact. May cause redness, pain and other discomfort.
Skin	Contact may cause itching, redness, and rash. Individuals sensitive to these ingredients may develop a rash (dermatitis).
Inhalation	Causes irritation to mucous membranes. Prolonged inhalation may be harmful.
Ingestion	Harmful if swallowed. Can cause hemorrhagic gastritis when ingested. Large exposures may be fatal.
Chronic effects	May aggravate pre-existing disorders of the skin.
Potential environmental effects	The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Dipentene	68956-56-9	>95
Terpene Alcohols	98-55-5	<5

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists.
Skin contact	Immediately take off all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention, if needed.
Ingestion	Have victim rinse mouth thoroughly with water. Do not use mouth-to-mouth method if victim ingested the substance. If ingestion of a large amount does occur, call a poison control center immediately.
Notes to physician	Treat symptomatically. The effects might be delayed.

General advice	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	Flammable by OSHA criteria. Containers may explode when heated. Heat may cause the containers to explode. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Water fog.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	In the event of fire and/or explosion do not breathe fumes. Heat may cause the containers to explode.
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Move containers from fire area if you can do it without risk. Containers may explode when heated.
Specific methods	In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Stay upwind. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep out of low areas. Ventilate closed spaces before entering them.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.
Methods for cleaning up	Extinguish all flames in the vicinity. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS. Clean up in accordance with all applicable regulations.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Use only with adequate ventilation. Avoid prolonged exposure. Handle and open container with care. Wash thoroughly after handling.
Storage	Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. The pressure in sealed containers can increase under the influence of heat. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Store in a closed container away from incompatible materials. Keep in an area equipped with sprinklers. Keep out of the reach of children. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

8. Exposure Controls / Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 2 OF 10

Exposure guidelines	Use personal protective equipment as required. Keep working clothes separately. No exposure standards allocated.
Engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Ensure adequate ventilation, especially in confined areas. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Personal protective equipment	
Eye / face protection	Wear approved chemical safety goggles.
Skin protection	Where spills or splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits or other protective clothing.Impervious gloves.
Respiratory protection	If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided. Use NIOSH approved respirator with organic vapor/acid gas protection.
General hygiene considerations	When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Clear liquid.
Color	Not available.
Odor	Pine.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	329 °F (165 °C)
Flash point	117 °F (47.2 °C)
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	1.6 % v/v
Flammability limits in air, lower, % by volume	0.7 % v/v
Vapor pressure	3 mmHg @ 20°C (68°F)
Vapor density	4.7
Specific gravity	0.85 @ 20°C (68°F)
Solubility (water)	Slightly soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	458 °F (236.7 °C)
Decomposition temperature	Not available.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 3 OF 10

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks. High temperatures. Contact with incompatible materials.
Incompatible materials	Oxidizing materials.
Hazardous decomposition products	When heated strongly or burned, oxides of carbon and harmful organic chemical fumes are released.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Local effects	Liquid and vapor irritate eyes and mucous membranes and can cause gastric troubles if swallowed.
Chronic effects	Prolonged inhalation may be harmful.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.
Epidemiology	No epidemiological data is available for this product.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Neurological effects	No data available for this product.
Reproductive effects	No test data available for the product.
Further information	Persons with pre-existing skin disorders may be more susceptible to the effects of the product.

12. Ecological Information

Ecotoxicity	Expected to be harmful to aquatic organisms.
Environmental effects	The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation / Accumulation	No data available.
Mobility in environmental media	The product is slightly soluble in water.
Partition coefficient (n-octanol/water)	Not available.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 F
Disposal instructions	Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN2052
Proper shipping name	Dipentene
Hazard class	3
Packing group	III
Environmental hazards	
Marine pollutant	Yes
Special precautions	DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.
Labels required	3
Additional information:	
Special provisions	B1, IB3, T2, TP1
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242
ERG number	128

IATA

Basic shipping requirements:

UN number	2052
Proper shipping name	Dipentene

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 4 OF 10

Flammability limits in air, upper, % by volume	11.4 % v/v
Flammability limits in air, lower, % by volume	1.4 % v/v
Vapor pressure	78 mmHg @ 20 °C (68 °F)
Vapor density	2.5 (Air = 1)
Specific gravity	0.81 @ 20 °C (68 °F)
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	759.2 °F (404 °C)
Decomposition temperature	Not available.

10. Chemical Stability & Reactivity Information

Chemical stability	The product is stable and non reactive under normal conditions of use, storage and transport.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Toxicological data

Components	**Test Results**
Methyl Ethyl Ketone (78-93-3)	Acute Dermal LD50 Rabbit: > 8000 mg/kg Acute Inhalation LC50 Rat: 11700 mg/l 4 Hours Acute Oral LD50 Rat: 2300 - 3500 mg/kg

Local effects	Irritating to eyes, respiratory system and skin. Components of the product may be absorbed into the body through the skin.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.
Neurological effects	Hazardous by OSHA criteria.
Symptoms and target organs	Central nervous system. Eyes. Skin. Narcosis. Rash. Defatting of the skin.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Components	**Test Results**
Methyl Ethyl Ketone (78-93-3)	LC50 Sheepshead minnow (Cyprinodon variegatus): > 400 mg/l 96 hours

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation / Accumulation	No data available.
Mobility in environmental media	The product is insoluble or slightly soluble in water.
Partition coefficient (n-octanol/water)	Not available.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 5 OF 10

Skin contact	Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse. Get medical attention.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.
Ingestion	Have victim rinse mouth thoroughly with water. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.
Notes to physician	Symptoms may be delayed. Treat symptomatically.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	Flammable by OSHA criteria. Containers may explode when heated. Vapors may travel considerable distance to a source of ignition and flash back. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Powder.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Move containers from fire area if you can do it without risk. Containers may explode when heated. Cool containers exposed to flames with water until well after the fire is out.
Specific methods	In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep out of low areas. Ventilate closed spaces before entering them.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Extinguish all flames in the vicinity. Should not be released into the environment. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS. Clean up in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste.
Other information	Clean up in accordance with all applicable regulations.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 6 OF 10

7. Handling and Storage

Handling

Vapors may form explosive mixtures with air. May be ignited by open flame. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Avoid contact with skin. Use only in area provided with appropriate exhaust ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment. Use care in handling/storage.

Storage

Flammable liquid storage. The pressure in sealed containers can increase under the influence of heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Store in a closed container away from incompatible materials. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Methyl Ethyl Ketone (78-93-3)	STEL	300 ppm
	TWA	200 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methyl Ethyl Ketone (78-93-3)	PEL	200 ppm
		590 mg/m3

Exposure guidelines

Use personal protective equipment as required. Keep working clothes separately.

Engineering controls

Ensure adequate ventilation, especially in confined areas. Where there is a potential for eye exposure to this substance, an eye wash fountain should be provided within the immediate work area for emergency use.

Personal protective equipment

Eye / face protection

Wear chemical goggles.

Skin protection

Wear chemical protective equipment that is specifically recommended by the manufacturer.

Respiratory protection

Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

General hygiene considerations

When using, do not eat, drink or smoke. Do not get in eyes. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Clear, colorless liquid.
Color	Colorless.
Odor	Not available.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	-122.8 °F (-86 °C)
Freezing point	Not available.
Boiling point	176 °F (80 °C) 760 (mmHg)
Flash point	15.8 °F (-9 °C) Closed Cup
Evaporation rate	2.7

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 7 OF 10

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. 17305

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *CALLSTATEDEPT* GENERATOR NAME: *Clean Harbors Env Services Inc*

GENERATOR CODE (Assigned by Clean Harbors) *CO* CITY *Norwell* STATE/PROVINCE *MA* ZIP/POSTAL CODE *02061*

ADDRESS *42 Longwater Drive*

CUSTOMER CODE (Assigned by Clean Harbors) *CO* CUSTOMER NAME: *Clean Harbors Env Services Inc* PHONE:

ADDRESS *42 Longwater Drive* CITY *Norwell* STATE/PROVINCE *MA* ZIP/POSTAL CODE *02061*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *DAI-007 TERPENE*

PROCESS GENERATING WASTE: **FLUOROCHEMICAL MANUFACTURING (TERPENE)**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- SOLID WITHOUT FREE LIQUID
- POWDER
- MONOLITHIC SOLID
- [x] LIQUID WITH NO SOLIDS
- LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- SLUDGE
- GAS/AEROSOL

NUMBER OF PHASES/LAYERS

[x] 1 2 3

% BY VOLUME (Approx.)

TOP	*0.00*
MIDDLE	*0.00*
BOTTOM	*0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- [x] 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e.g. Molasses)
- > 10,000

COLOR

YELLOW

ODOR
- NONE
- MILD
- [x] STRONG

Describe: *turpintine*

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- [x] >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- > 200 (>93)

TOTAL ORGANIC CARBON
- <= 1%
- 1-9%
- [x] >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- [x] 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7.1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0.8 (e.g. Gasoline)
- [x] 0.8-1.0 (e.g. Ethanol)
- 1.0 (e.g. Water)
- 1.0-1.2 (e.g. Antifreeze)
- > 1.2 (e.g. Methylene Chloride)

ASH
- [x] < 0.1
- 0.1 - 1.0
- 1.1 - 5.0
- 5.1 - 20.0
- > 20
- Unknown

BTU/LB (MJ/kg)
- < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- [x] 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual:

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS. Please do not use abbreviations.)

CHEMICAL	MIN	–	MAX	UOM
TERPENE	50.0000000	–	100.0000000	%
WATER	1.0000000	–	50.0000000	%

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX., METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING; ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health. This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material. YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS. YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED. YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G08* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W219*

CleanHarbors

Clean Harbors Profile No. 17305

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

FLUOROCHEMICAL MANUFACTURING (TERPENE)

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0.5				
D019	CARBON TETRACHLORIDE	0.5				
D021	CHLOROBENZENE	100.0				
D022	CHLOROFORM	6.0				
D028	1,2-DICHLOROETHANE	0.5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0.7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0.2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200.0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200.0				
D027	1,4-DICHLOROBENZENE	7.5				
D030	2,4-DINITROTOLUENE	0.13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0.5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5.0				
D041	2,4,5-TRICHLOROPHENOL	400.0				
D042	2,4,6-TRICHLOROPHENOL	2.0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0.02				
D013	LINDANE	0.4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0.5				
D016	2,4-D	10.0				
D017	2,4,5-TP (SILVEX)	1.0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 14
PAGE: 9 OF 10

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

CleanHarbors | Clean Harbors Profile No. 17305

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES ☑ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☑ YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

☑ YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

UN2052, DIPENTENE, 3, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY ☑ QUARTERLY YEARLY OTHER *Other*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK ☑ DRUM
OTHER:
DRUM SIZE:

☑ **BULK LIQUID**

GALLONS/SHIPMENT: *5000.00 Min -5000.00 Max* GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE

United States Department of Transportation regulations state that packaging manufacturers are required to notify each person to whom the packaging is transferred of all requirements not met at the time of transfer. This requirement is given in Title 49, Code of Federal Regulations (49 CFR), Part 178 Specifications for Packagings, § 178.2 (c). In addition this Paragraph requires the closing information to be provided to any person to whom this package is transferred who may need to close the packaging prior to re-shipment. Furthermore, it is the shipper's responsibility as set forth in §173.22(a)(4) to ensure that these closing instructions are carried out as described. In order to ensure the instructions are followed in a manner to result in safe transport of hazardous materials the shipper is obligated, as set forth in § 172.704(a)(4), namely - function specific training - to train his/her employees in the correct way to close the packaging for shipment. In order to fulfill this obligation the shipper often turns to the packaging manufacturer for this training since the manufacturer has designed, produced and tested the packaging to meet UN performance standards. MAUSER is prepared to provide this training in addition to supplying closing instructions. It has been the practice of MAUSER to send closing instructions attached to the shipping documents with each shipment of drums. This document provides specific information on closing MAUSER packagings.

These closing instructions must be given to the individuals responsible for closing the packagings prior to shipment. A hard copy (printed) must be maintained by the filler or offeror for shipment. Copies should be immediately available at the fill lines.

The following tables and text give examples of the parts and closing torque required to prepare the drum or IBC for shipment so that it is capable of meeting the performance standards indicated by the UN marking on the side or top of the packaging. **MAUSER recommends that only parts that have been tested and certified by MAUSER be used to close the packagings for shipment. Any UN marking is voided if parts other than those used in the original design qualifications are used.** Each closure is supplied with the proper gasket in accordance with the UN design type tests for the packaging supplied. In the case of Intermediate Bulk Containers, IBC's, the lid, gaskets, plugs, cages, pallets, valves and service equipment are supplied as tested.

PRIOR TO CLOSING:

Inspect each closure to ensure that the closure has the proper gasket and that both closure and gasket are in good condition. Inspect the sealing surface for damage and make sure the threads and sealing surfaces are dry. Replace any defective gaskets, plugs or lids with new, defect free parts identical to the original packaging design.

CLOSING PROCEDURES FOR PLUGS AND CAPS:

1. **The plug or cap is inserted into the appropriate opening and screwed down "hand tight" until the gasket i contact with the sealing surface.**
2. **A torque wrench capable of applying the proper torque to the fitting as specified by the closing instructio following is then used to tighten the plug or cap until it reaches the pre-set torque as indicated by a relea: click. These wrenches should be calibrated at least annually.**

INTERMEDIATE BULK CONTAINERS

	IBC Type	Gasket Type	Torque
A	Bulkdrum ® II	EPDM/FKM	70 ft.-lbs.
B	MAUSER ® SM series 275/330 gallon	EPDM	70 ft.-lbs.
C	MAUSER ® SM series 275/330 gallon	FKM/FPM	70 ft.-lbs.
D	2" plug in 150 mm lid, vented and solid	EPDM/FKM	20-25 ft.-lbs.
E	56 mm plug in 150 mm lid vented and solid	EPDM/FKM	20-25 ft.-lbs.

All UN 31HA1 and 31 HG1 Composite IBC's 49CFR § 178.707 (a) (5) that are supplied with lids, cages, pa and service equipment must be **closed for shipment using only the components supplied and specifi the design qualification tests for that IBC.**

- Place the lid with gasket in place on the top opening of the IBC.
- Screw the lid by hand until the gasket is in contact with the sealing surface.
- Using the lid adaptor and torque wrench tighten the lid to the recommended torque. Recommended torque is reached when the wrench releases or clicks.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 15
PAGE: 1 OF 2

Preset torque wrenches or adjustable torque wrenches are suitable for this procedure. Please calibrate wrenches at least annually. Variable range adjustable machinist torque wrenches are available and most auto parts stores, catalog stores like Grainger and Mc Master Carr, Sears, Home Depot, Lowes, on-line drum parts suppliers, and many others. IBC Cap and valve adapters are available through MAUSER or many catalog houses that specialize in drum and IBC parts and components.

VALVES

The valves supplied with MAUSER IBCs are factory installed and are not meant to be installed by the filler. If an IBC valve must be replaced the following procedures must be followed. Only valves as specified in the original design qualification are suitable.

IBC valve replacement constitutes a "repair" and the person repairing must adhere to the requirements of 49 CFR Part 180 Subpart D §§ 180.350 -180.352 **Qualification and Maintenance of IBCs**. MAUSER assumes no responsibility for the performance of any packaging repaired by any person or company. This information is provided as an accommodation and MAUSER assumes no warranty or guarantee of any kind and the recipients use or non-use of this information is at the sole discretion and responsibility of the recipient.

1. Inspect new unused replacement valve for presence of defect free, clean gaskets.
2. Hand thread the valve until the threads begin to grip.
3. **MAUSER Butterfly and Cylinder Integrated Collar Valves** : Using a torque wrench with a valve adapter as above tighten the valve to a minimum of 70 ft-lbs, finishing the procedure with the valve in the proper vertical orientation. If the valve reaches 70 ft-lbs and will not orient properly, or if it can not reach 70 ft-lbs, it may be cross threaded or a bad thread. Discard and repeat with **a new** valve. The polyolefin gasket on the valve collar is not designed for repeated
4. **Banjo brand metal collar valves:** Holding the valve in the proper vertical orientation spin the metal collar until hand tight. Using a calibrated torque wrench with valve adapter tighten the collar to 50 ft-lbs.
5. **Leak proof test the empty IBC with ≥20 kPa air pressure per 49 CFR 178.813.**

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 15
PAGE: 2 OF 2

PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS

U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	16
Page Number:	1 of 10

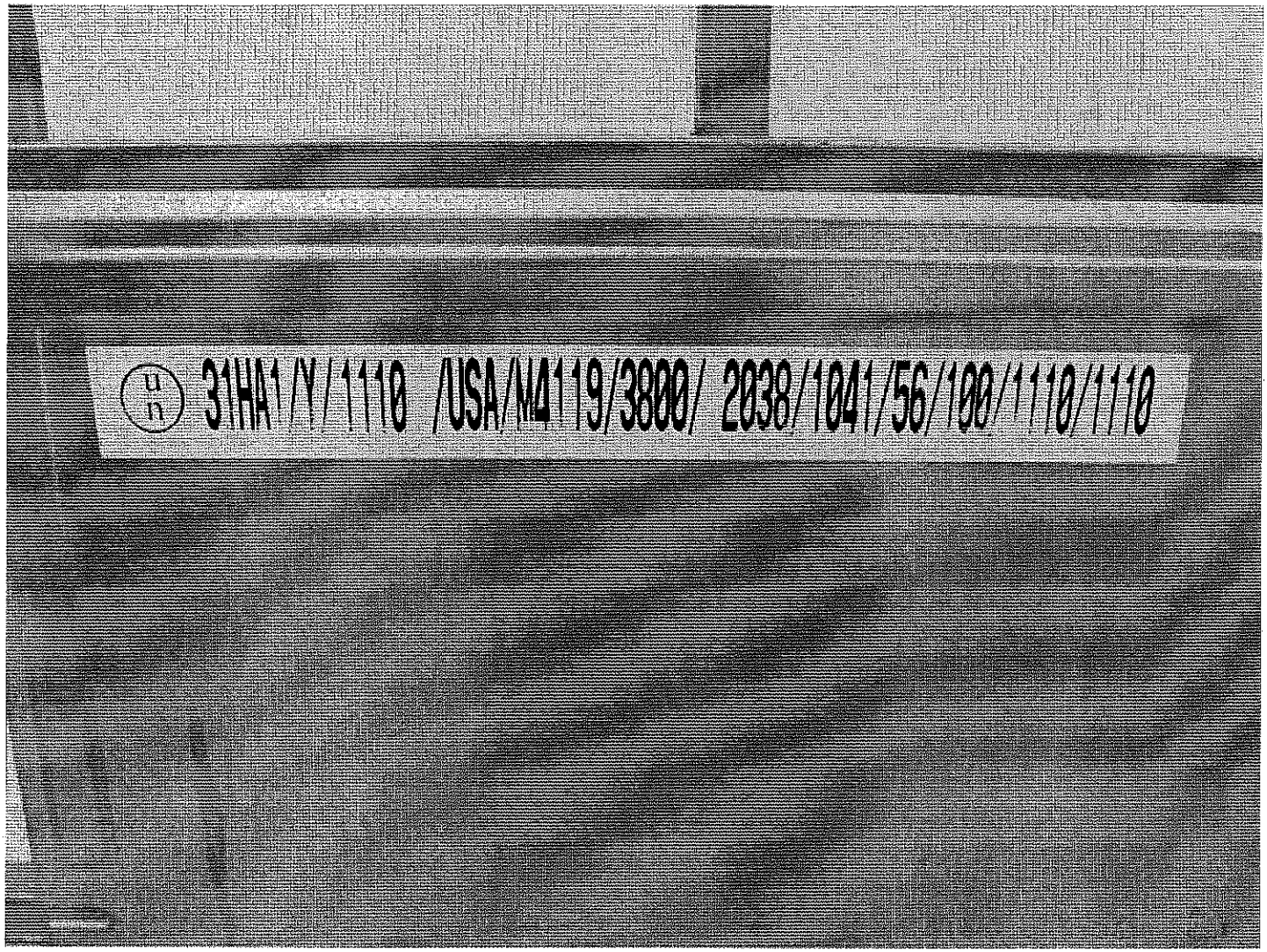
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS

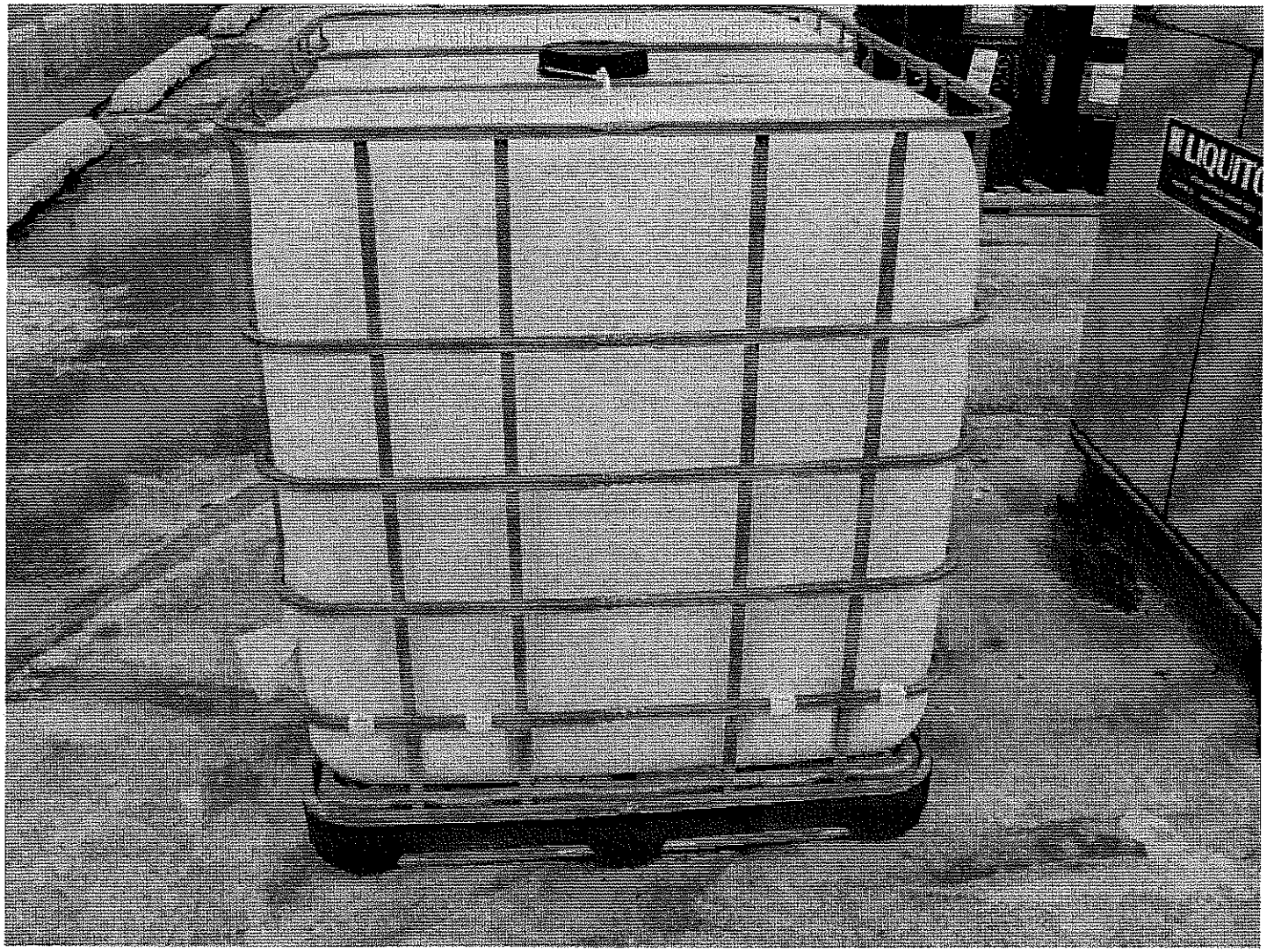
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



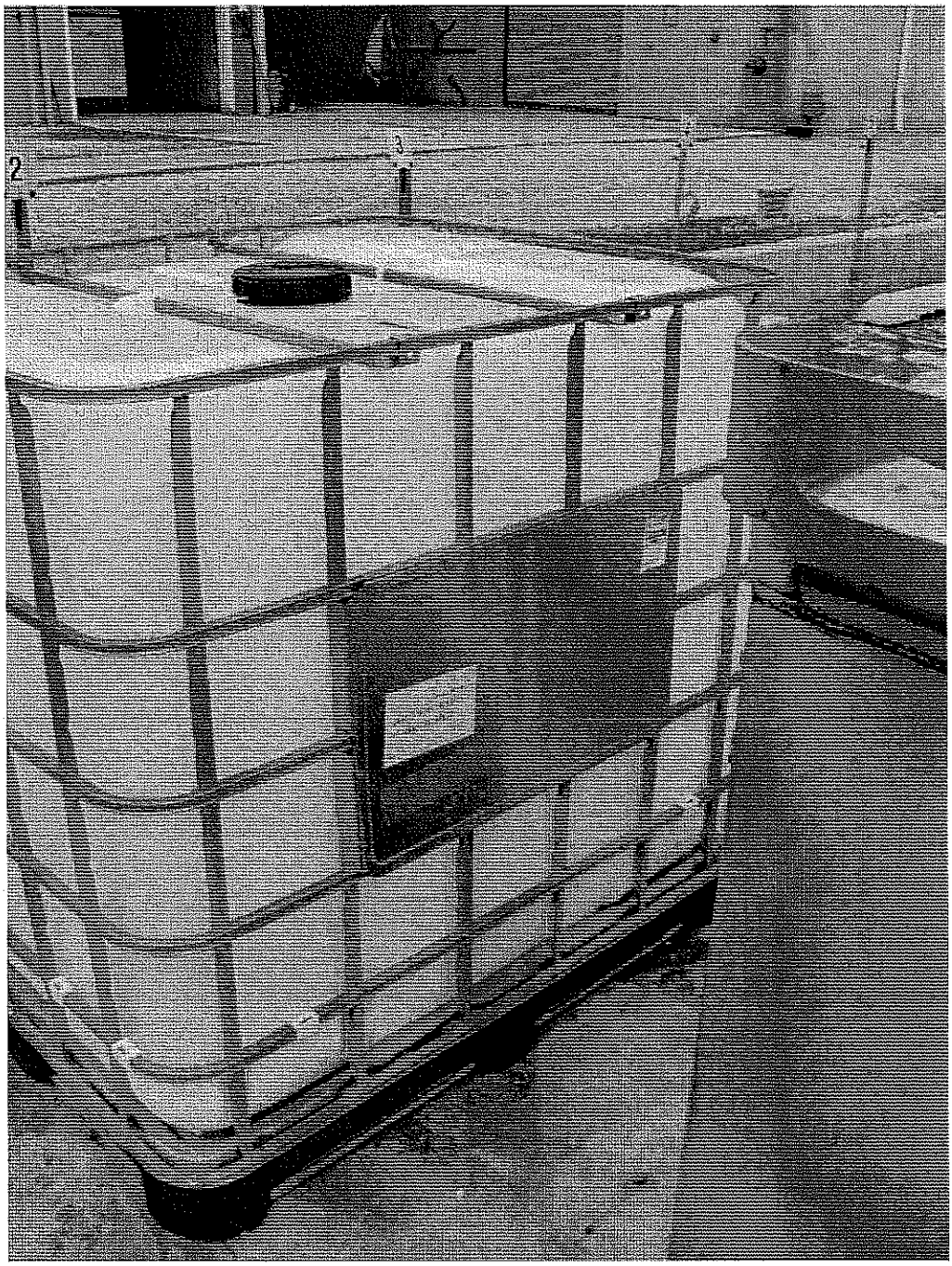
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	16
Page Number:	5 of 10

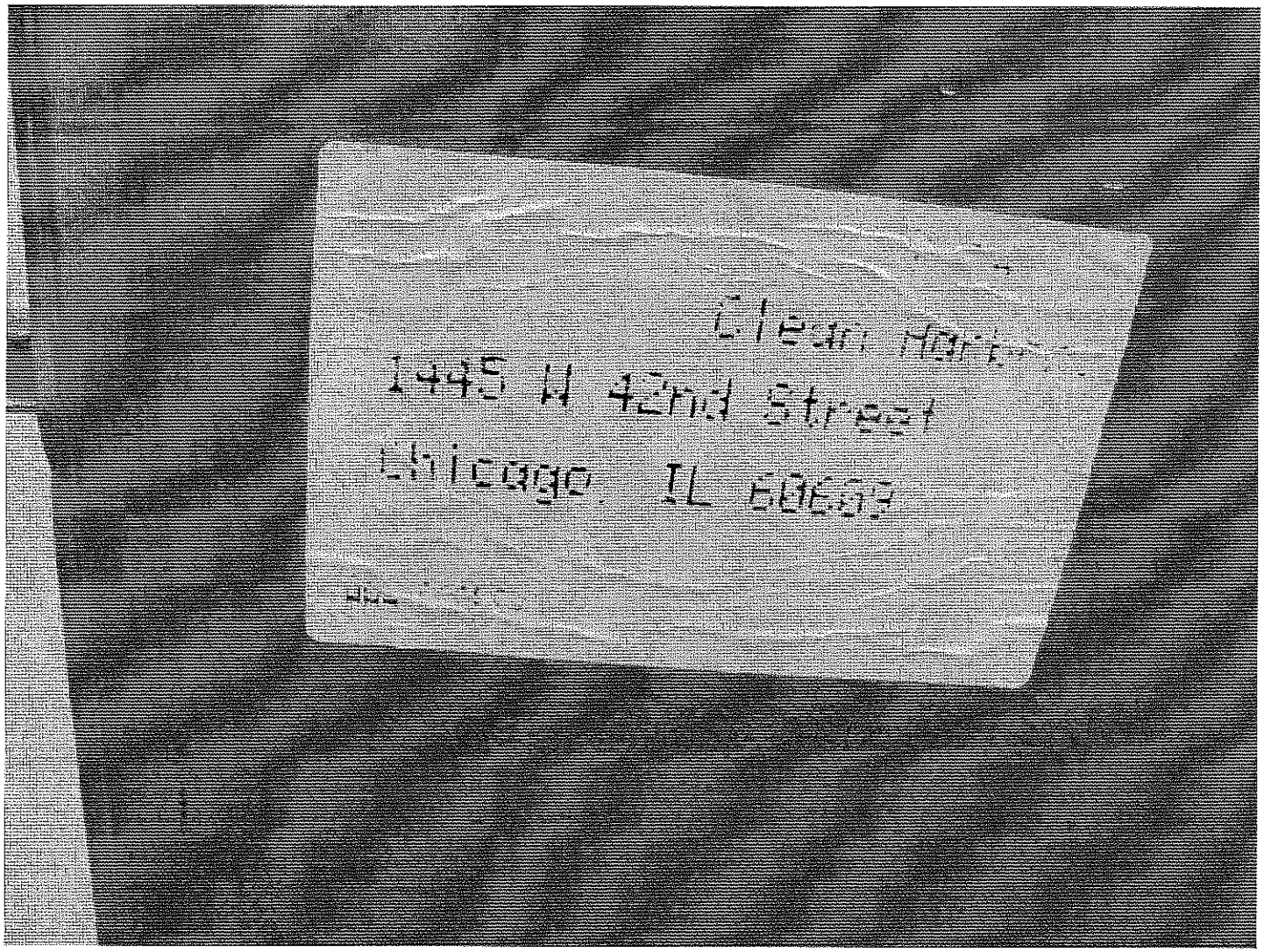
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	16
Page Number:	6 of 10

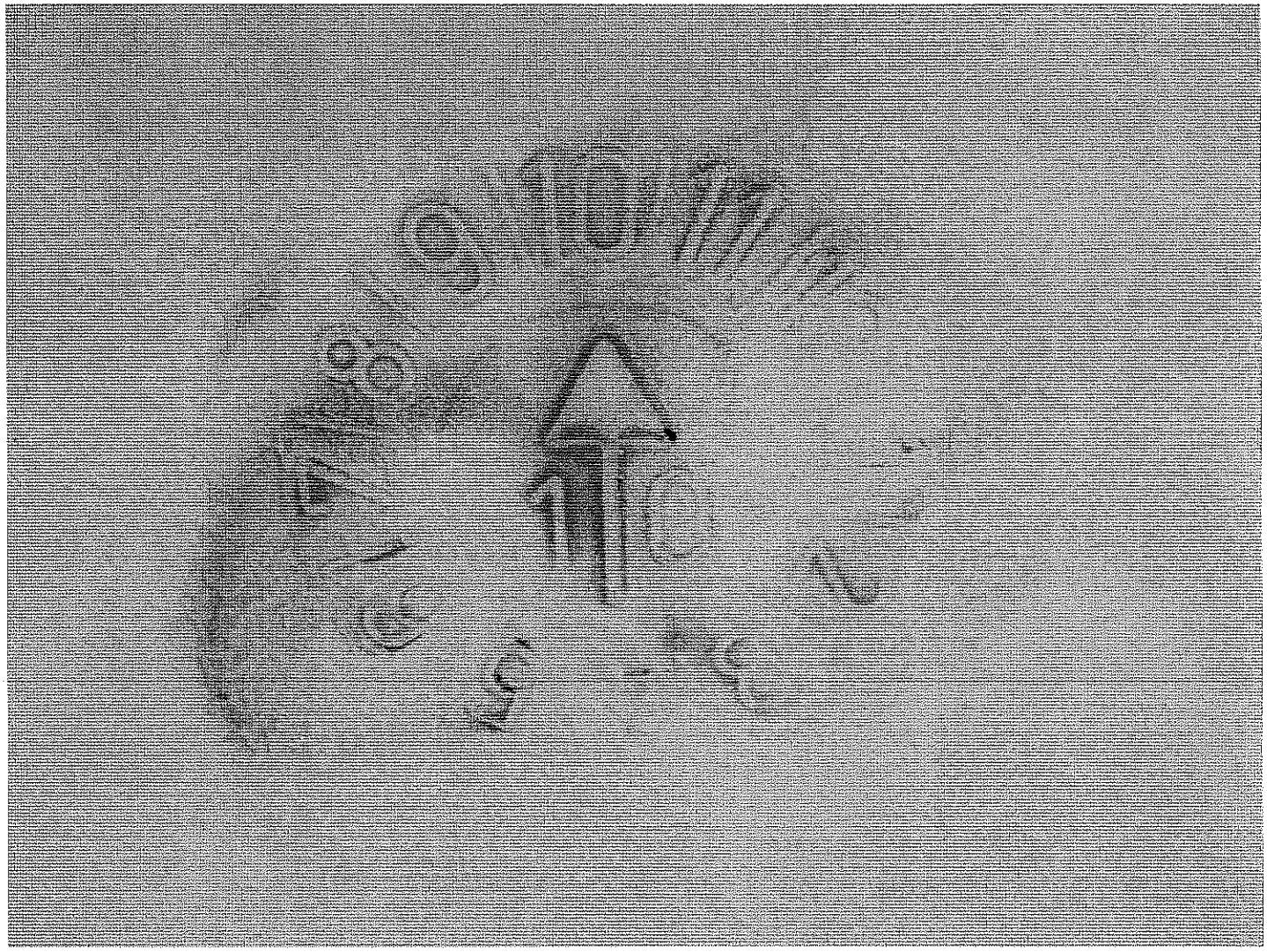
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	16
Page Number:	7 of 10

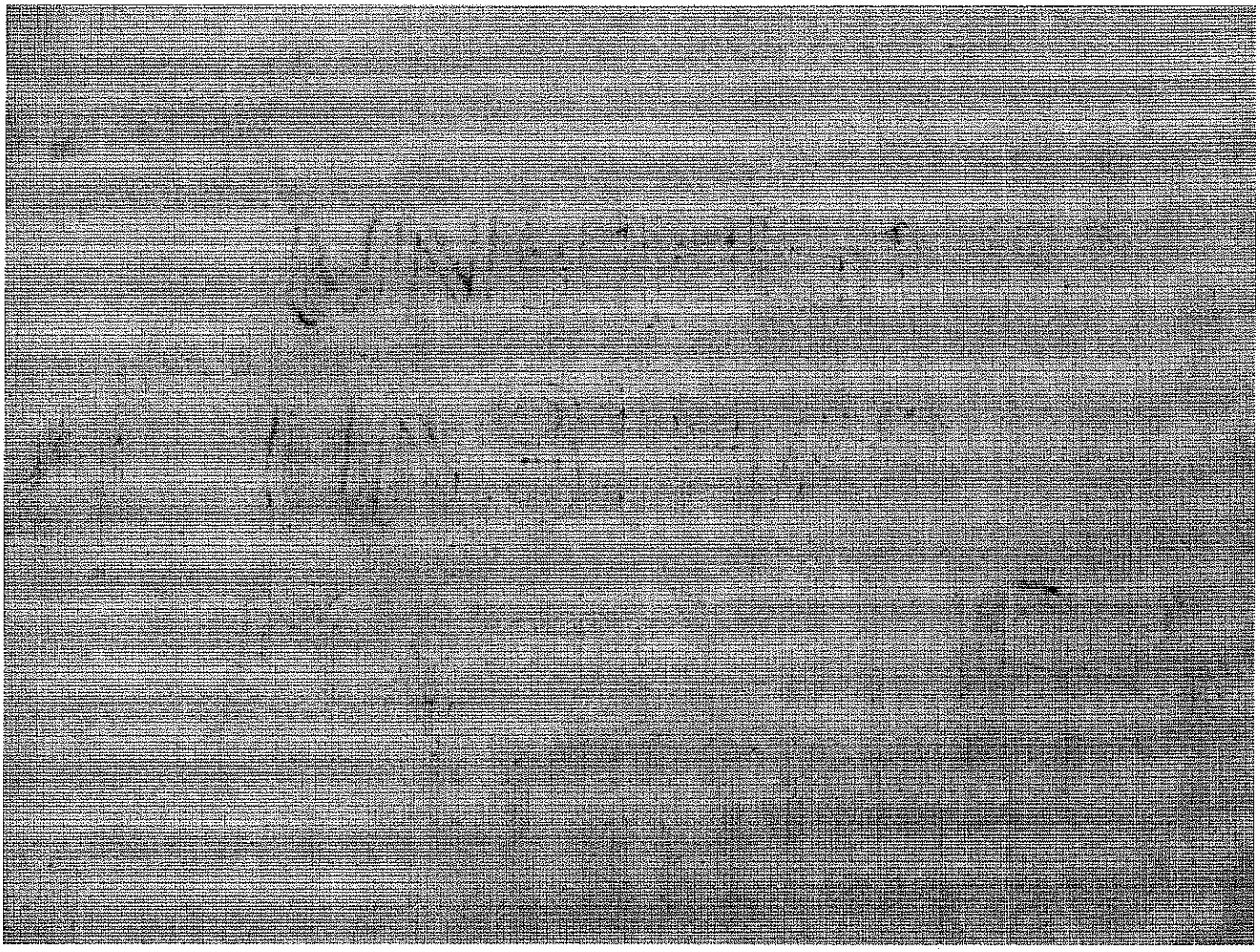
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	16
Page Number:	8 of 10

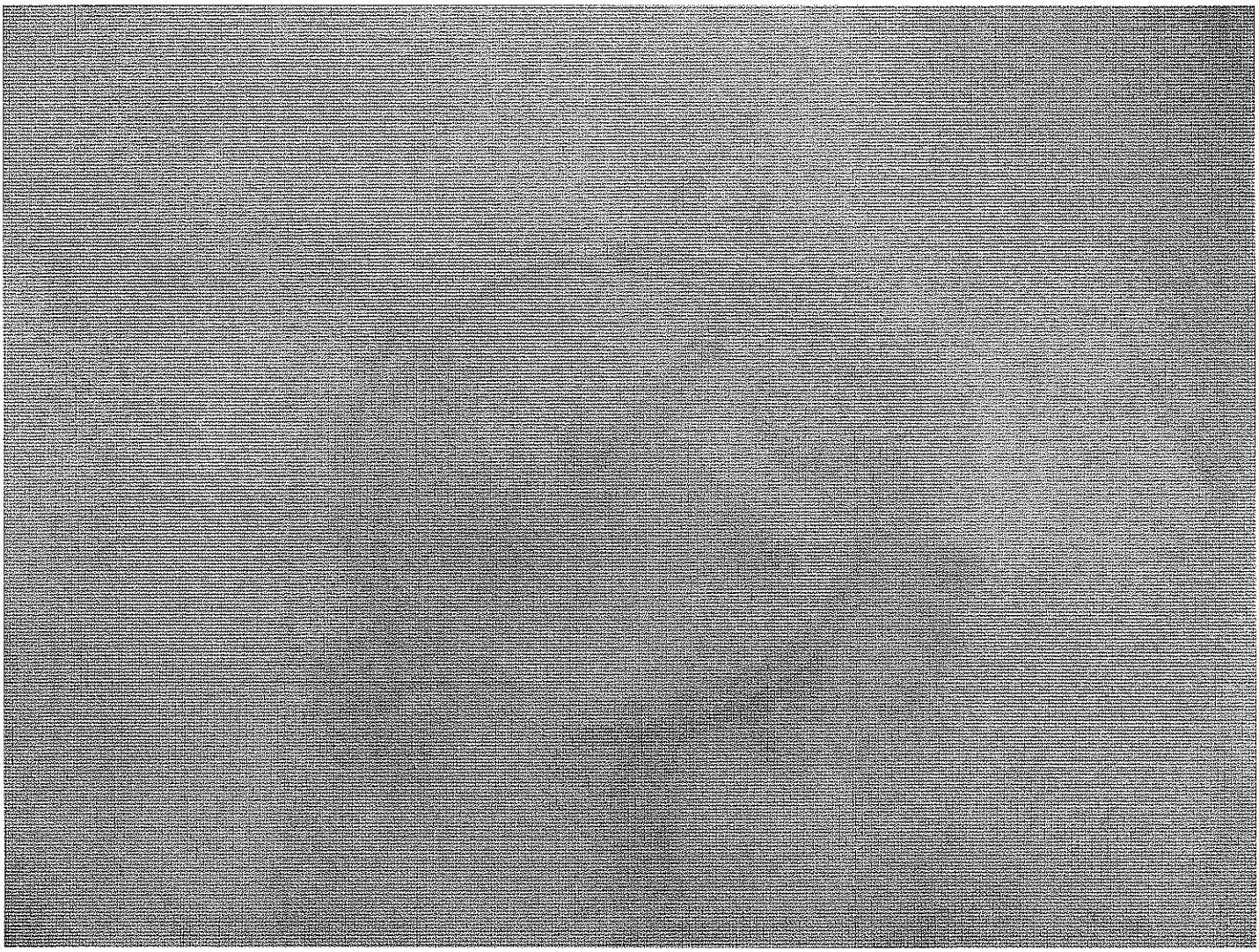
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



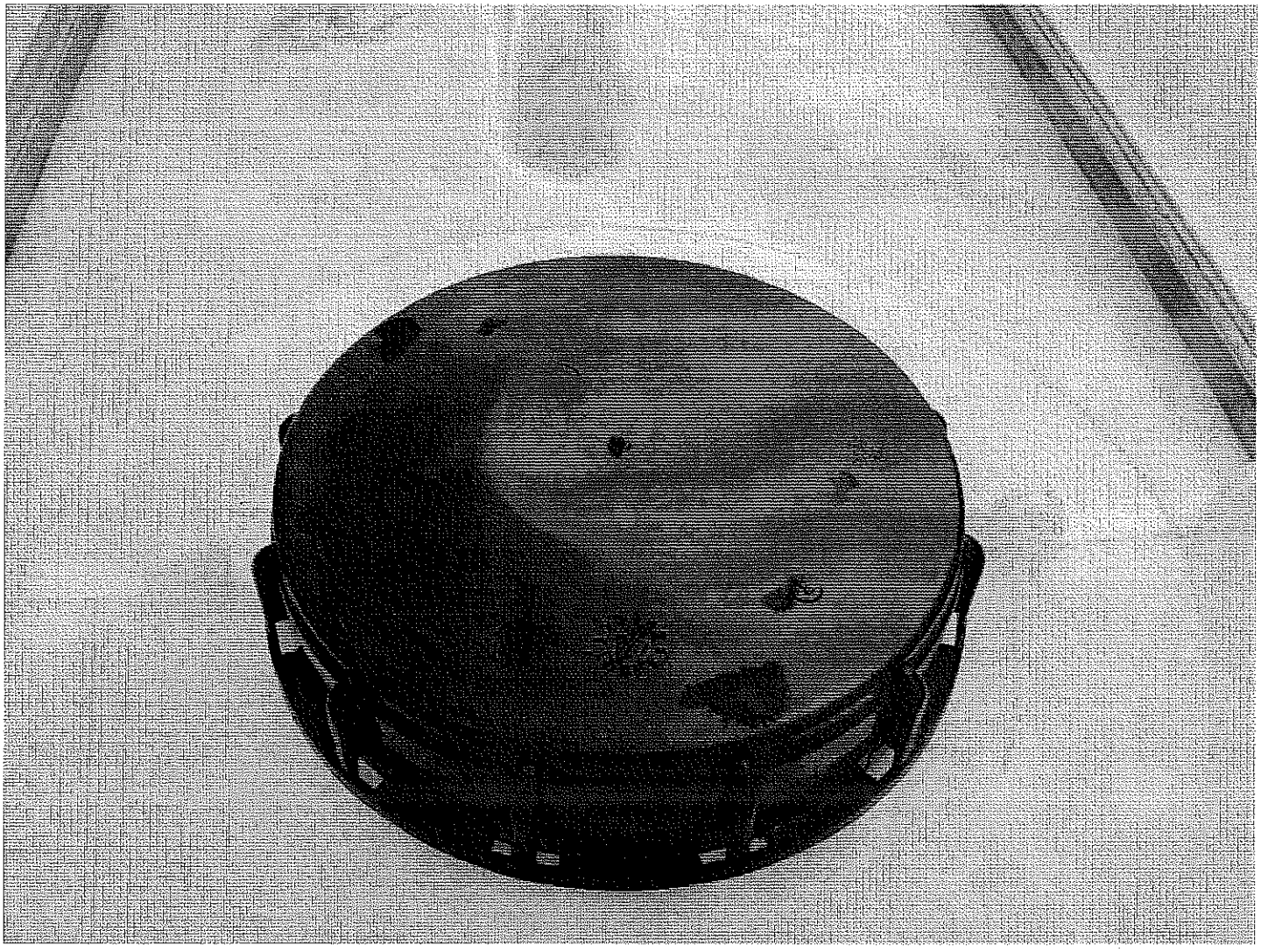
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 7/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	16
Page Number:	10 of 10

Site Address : SAME

SC PPW 3/3/2011 WORK ORDER NO. ~~A13639796~~

DOCUMENT NO. 342019

STRAIGHT BILL OF LADING

TRANSPORTER 1 CENTRAL TRANS Port VEHICLE ID # 472047

EPA ID # _____ TRANS. 1 PHONE _____

TRANSPORTER 2 _____ VEHICLE ID # _____

EPA ID # _____ TRANS. 2 PHONE _____

DESIGNATED FACILITY Daikin America Inc	SHIPPER Clean Harbors Recycling Services of Chicago, LLC
FACILITY EPA ID # ALD983192253	SHIPPER EPA ID # ILD005450697
ADDRESS 905 State Docks Road	ADDRESS 1445 W 42nd Street
CITY Decatur STATE AL ZIP 35601	CITY Chicago STATE IL ZIP 60609

CONTAINERS NO. & SIZE	TYPE	HM	DESCRIPTION OF MATERIALS	TOTAL QUANTITY	UNIT WT/VOL
7XTOTE		X	A. UN1193, METHYL ETHYL KETONE, 3, PG II	2,000	GALS
			B.		
			C.	16,655	WT.
			D.		
			E. [redacted]		
			F.		
			G.		
			H.		

Quote 773-247-2828 7-12-11. Bill to Service Chemical LLC, Acct AC Ocean, 221 Sutton Street, N. Andover, MA 01845, PO 0000002756

SPECIAL HANDLING INSTRUCTIONS EMERGENCY PHONE #: (800) 483-3718

GENERATOR: Clean Harbors Recycling Services of Chicago, LLC

A.03172ERG# 127 2000gx6.71=13420x1.35=18117+1360+fs = Purchase Order 1S 10075246

19701

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER	PRINT Ron Pawlak	SIGN R Pawlak	DATE 7-13-11
TRANSPORTER 1	PRINT Ahman Williams 7Hu	SIGN Ahman Williams	DATE 7-13-11
TRANSPORTER 2	PRINT	SIGN	DATE
RECEIVED BY	PRINT		

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 17
PAGE: 1 OF 1

CHI 107 JW A11189594

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	CLEAN HARBORS METHYL ETHYL KETONE
Version #	01
Revision date	10-25-2010
Manufacturer/Supplier	Clean Harbors Recycling Services of Chicago, LLC 1445 W. 42nd Street Chicago, IL 60609 www.cleanharbors.com General Information: 1 773-247-2828
Emergency	24-Hour Emergency: 1 800-645-8265

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 1 OF 10

2. Hazards Identification

Physical state	Liquid.
Appearance	Clear, colorless liquid.
Emergency overview	DANGER EXTREMELY FLAMMABLE LIQUID AND VAPOR. Vapors may cause a flash fire or ignite explosively. Harmful or fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes skin, eye and respiratory tract irritation. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Vapors irritate the eyes. Eye contact may result in corneal injury.
Skin	Contact causes skin irritation. Symptoms include itching, redness and pain. May be absorbed through the skin with possible systemic effects. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Irritating to the nose, throat, and respiratory tract. Harmful if inhaled in concentration higher than STEL or TWA (see section 8.) Inhalation of high concentrations may cause central nervous system depression and unconsciousness. Prolonged inhalation may be harmful.
Ingestion	Components of the product may be absorbed into the body by ingestion. May cause abdominal pain, burning sensation, nausea. Swallowing or vomiting of the liquid may result in aspiration into the lungs. Symptoms are similar to those described under inhalation.
Target organs	Central nervous system. Eyes. Respiratory system. Skin.
Chronic effects	Conjunctiva. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Corneal damage. Narcosis. Decrease in motor functions. Behavioral changes. Conjunctivitis. Irritation of nose and throat. Irritation of eyes and mucous membranes. Defatting of the skin. Skin irritation. Rash.
Potential environmental effects	May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Methyl Ethyl Ketone	78-93-3	99 - 100

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention.

Skin contact	Wash off with soap and plenty of water. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse. Get medical attention.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.
Ingestion	Have victim rinse mouth thoroughly with water. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.
Notes to physician	Symptoms may be delayed. Treat symptomatically.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	Flammable by OSHA criteria. Containers may explode when heated. Vapors may travel considerable distance to a source of ignition and flash back. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Powder.
Unsuitable extinguishing media	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Move containers from fire area if you can do it without risk. Containers may explode when heated. Cool containers exposed to flames with water until well after the fire is out.
Specific methods	In the event of fire and/or explosion do not breathe fumes.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Consider initial downwind evacuation for at least 500 meters (1/3 mile). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep out of low areas. Ventilate closed spaces before entering them.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Extinguish all flames in the vicinity. Should not be released into the environment. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS. Clean up in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste.
Other information	Clean up in accordance with all applicable regulations

7. Handling and Storage

Handling

Vapors may form explosive mixtures with air. May be ignited by open flame. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. All equipment used when handling the product must be grounded. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Avoid contact with skin. Use only in area provided with appropriate exhaust ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment. Use care in handling/storage.

Storage

Flammable liquid storage. The pressure in sealed containers can increase under the influence of heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49 °C. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Store in a closed container away from incompatible materials. Keep in an area equipped with sprinklers. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Use care in handling/storage. Store in accordance with local/regional/national/international regulation.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Methyl Ethyl Ketone (78-93-3)	STEL	300 ppm
	TWA	200 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Methyl Ethyl Ketone (78-93-3)	PEL	200 ppm
		590 mg/m3

Exposure guidelines Use personal protective equipment as required. Keep working clothes separately.

Engineering controls Ensure adequate ventilation, especially in confined areas. Where there is a potential for eye exposure to this substance, an eye wash fountain should be provided within the immediate work area for emergency use.

Personal protective equipment

Eye / face protection Wear chemical goggles.

Skin protection Wear chemical protective equipment that is specifically recommended by the manufacturer.

Respiratory protection Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

General hygiene considerations When using, do not eat, drink or smoke. Do not get in eyes. Avoid contact with skin. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Clear, colorless liquid.
Color	Colorless.
Odor	Not available.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	-122.8 °F (-86 °C)
Freezing point	Not available.
Boiling point	176 °F (80 °C) 760 (mmHg)
Flash point	15.8 °F (-9 °C) Closed Cup
Evaporation rate	2.7

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 3 OF 10

Flammability limits in air, upper, % by volume	11.4 % v/v
Flammability limits in air, lower, % by volume	1.4 % v/v
Vapor pressure	78 mmHg @ 20 °C (68 °F)
Vapor density	2.5 (Air = 1)
Specific gravity	0.81 @ 20 °C (68 °F)
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	759.2 °F (404 °C)
Decomposition temperature	Not available.

10. Chemical Stability & Reactivity Information

Chemical stability	The product is stable and non reactive under normal conditions of use, storage and transport.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Ammonia. Amines. Isocyanates. Caustics.
Hazardous decomposition products	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide. No dangerous reaction known under conditions of normal use.

11. Toxicological Information

Toxicological data

Components	**Test Results**
Methyl Ethyl Ketone (78-93-3)	Acute Dermal LD50 Rabbit: > 8000 mg/kg Acute Inhalation LC50 Rat: 11700 mg/l 4 Hours Acute Oral LD50 Rat: 2300 - 3500 mg/kg

Local effects	Irritating to eyes, respiratory system and skin. Components of the product may be absorbed into the body through the skin.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. Not classified.
Neurological effects	Hazardous by OSHA criteria.
Symptoms and target organs	Central nervous system. Eyes. Skin. Narcosis. Rash. Defatting of the skin.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Components	**Test Results**
Methyl Ethyl Ketone (78-93-3)	LC50 Sheepshead minnow (Cyprinodon variegatus): > 400 mg/l 96 hours

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulation / Accumulation	No data available.
Mobility in environmental media	The product is insoluble or slightly soluble in water.
Partition coefficient (n-octanol/water)	Not available.

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 4 OF 10

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 F D035: Waste Methyl ethyl ketone

US RCRA Hazardous Waste U List: Reference

Methyl Ethyl Ketone (CAS 78-93-3) U159

Disposal instructions	Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not dispose of waste into sewer. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.
Waste from residues / unused products	Dispose in accordance with applicable federal, state, and local regulations.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1193
Proper shipping name	Ethyl methyl ketone
Hazard class	3
Packing group	II
Labels required	3
Additional information:	
Special provisions	IB2, T4, TP1
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242
ERG number	127

IATA

Basic shipping requirements:

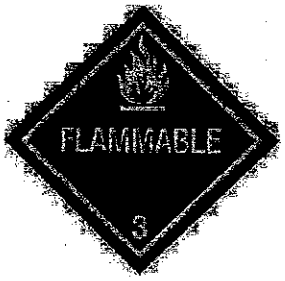
UN number	1193
Proper shipping name	Ethyl methyl ketone
Hazard class	3
Packing group	II
Additional information:	
ERG code	3L

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 5 OF 10

IMDG

Basic shipping requirements:

UN number	1193
Proper shipping name	ETHYL METHYL KETONE
Hazard class	3
Packing group	II
EmS No.	F-E, S-D



DOT

IATA

IMDG

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA (Superfund) reportable quantity (lbs)

Methyl Ethyl Ketone 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

US - Massachusetts RTK - Substance: Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

US - New Jersey RTK - Substances: Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 1*
Flammability: 3
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 3
Instability: 0

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 6 OF 10

Disclaimer

This MSDS is furnished independent of product sale. Every effort was made to accurately describe this product. However, some of the data are obtained from sources beyond Clean Harbors PPM, LLC direct supervision. We cannot make any assertions as to its reliability or completeness. Therefore, the user may rely on it only at user's risk. We have made no effort to censor or conceal deleterious aspects of this product. Since Clean Harbors PPM, LLC cannot anticipate or control the conditions under which this information and product may be used, we make no guarantee that the precautions we have suggested will be adequate for all individuals and/or situations. It is the obligation of each user of this product to comply with the requirements of all applicable laws regarding the use and disposal of this product. Additional information will be furnished upon request to assist the user; however, no warranty, either expressed or implied, nor liability of any nature with respect to this product or to the data herein is made or incurred hereunder.

Issue date

10-25-2010

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 7 OF 10

CleanHarbors

Clean Harbors Profile No. 17305

F. REGULATORY STATUS

YES ☑ NO USEPA HAZARDOUS WASTE?

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

☑ YES NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *This is subject to LDR.*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☑ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)?

YES ☑ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

☑ YES NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

☑ YES NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

YES NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

YES NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge of the Waste Or Test Data Knowledge Testing

Describe the knowledge :

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

UN2052, DIPENTENE, 3, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY MONTHLY ☑ QUARTERLY YEARLY OTHER *Other*

CONTAINERIZED

0-0 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET

TOTE TANK ☑ DRUM

OTHER:

DRUM SIZE:

☑ **BULK LIQUID**

GALLONS/SHIPMENT: *5000.00 Min -5000.00 Max* GAL.

BULK SOLID

SHIPMENT UOM: TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy.

AUTHORIZED SIGNATURE	NAME (PRINT)	TITLE	DATE

CleanHarbors

Clean Harbors Profile No. 17305

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

FLUOROCHEMICAL MANUFACTURING (TERPENE)

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5.0				☑
D005	BARIUM	100.0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑

	VOLATILE COMPOUNDS	
D018	BENZENE	0.5
D019	CARBON TETRACHLORIDE	0.5
D021	CHLOROBENZENE	100.0
D022	CHLOROFORM	6.0
D028	1,2-DICHLOROETHANE	0.5
D029	1,1-DICHLOROETHYLENE	0.7
D035	METHYL ETHYL KETONE	200.0
D039	TETRACHLOROETHYLENE	0.7
D040	TRICHLOROETHYLENE	0.5
D043	VINYL CHLORIDE	0.2

	SEMI-VOLATILE COMPOUNDS	
D023	o-CRESOL	200.0
D024	m-CRESOL	200.0
D025	p-CRESOL	200.0
D026	CRESOL (TOTAL)	200.0
D027	1,4-DICHLOROBENZENE	7.5
D030	2,4-DINITROTOLUENE	0.13
D032	HEXACHLOROBENZENE	0.13
D033	HEXACHLOROBUTADIENE	0.5
D034	HEXACHLOROETHANE	3.0
D036	NITROBENZENE	2.0
D037	PENTACHLOROPHENOL	100.0
D038	PYRIDINE	5.0
D041	2,4,5-TRICHLOROPHENOL	400.0
D042	2,4,6-TRICHLOROPHENOL	2.0

	PESTICIDES AND HERBICIDES	
D012	ENDRIN	0.02
D013	LINDANE	0.4
D014	METHOXYCHLOR	10.0
D015	TOXAPHENE	0.5
D016	2,4-D	10.0
D017	2,4,5-TP (SILVEX)	1.0
D020	CHLORDANE	0.03
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE

< 1000 PPM

>= 1000 PPM

PCBs

☑ NONE

< 50 PPM

>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 9 OF 10

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA (Superfund) reportable quantity (lbs)

Methyl Ethyl Ketone 5000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

US - Massachusetts RTK - Substance: Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

US - New Jersey RTK - Substances: Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Methyl Ethyl Ketone (CAS 78-93-3) Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings Health: 1*
Flammability: 3
Physical hazard: 0

NFPA ratings Health: 1
Flammability: 3
Instability: 0

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 18
PAGE: 10 OF 10

CleanHarbors®

Certificate of Completion

is hereby granted to

Raul E Siguenza

to certify that he/she has completed to satisfaction

ET2002 DOT Training Test

Completion Date:

5/5/2011

CleanHarbors®

Certificate of Completion

is hereby granted to

Ronald A Pawlak

to certify that he/she has completed to satisfaction

ET2002 DOT Training Test

Completion Date:

4/21/2011

Internal Regulatory Training Dept

CleanHarbors®

DOT for Hazmat Employees

Clean Harbors
42 Longwater Drive
Norwell, MA 02061
781-792-5000
http://www.cleanharbors.com/training

ET2002
Revision 03/14/2011

– Summary of Contents –

THE HAZMAT REGULATIONS 1
HAZARD CLASSES & DIVISIONS 18
THE HAZARDOUS MATERIAL TABLE 37
EMERGENCY RESPONSE INFORMATION 47
SHIPPING PAPERS 53
HAZARDOUS WASTE MANIFEST 67
LABELS & MARKINGS 97
PLACARDS 109
PERFORMANCE ORIENTATED PACKAGING & CLOSURE 119
HAZMAT SEGREGATION & LOAD SECUREMENT 131
SECURITY AWARENESS 138

Copyright © 2011 Clean Harbors

Table of Contents

THE HAZMAT REGULATIONS **1**

Introduction 1
Regulatory Structure 3
Code of Federal Regulations: Title 49 ..... *3*
Hazardous Materials, Wastes, & Substances 4
Hazard Communication 4
Placards *6*
Training Requirements 8
General Awareness *8*
Function Specific *8*
Safety Training *8*
Security Awareness *9*
In-Depth Security Plan *9*
Triennial Retraining & Updates *10*
Record Keeping & Certification Requirements *10*
General Definitions 11
Bulk Package *11*
Commerce *11*
Hazardous Material *11*
Hazmat Employee *12*
Hazmat Employer *12*
Intermediate Bulk Packaging *12*
Loading *13*
Markings *13*
Non-bulk Package *13*
Pre-transportation Functions *13*
Transportation *15*
Unloading *15*
End of Chapter Exercises 16

HAZARD CLASSES & DIVISIONS **18**

Introduction 18
Hazard Class & Division 18
Packing Groups, Hazard Zones, & Risk Groups 19
Hazard Zones for Poisonous-By-Inhalation (PIH) Materials *20*
Class 1 Explosives 20
Division 1.1 ..... *20*
Division 1.2 ..... *20*
Division 1.3 ..... *21*
Division 1.4 ..... *21*
Division 1.5 ..... *21*
Division 1.6 ..... *21*
Class 2 Gases 21
Division 2.1 – Flammable Gas *22*
Division 2.2 – Non-flammable, Non-poisonous Compressed Gas *22*
Division 2.3 – Poison Gas *22*
Hazard Zones *23*
Class 3 Flammable Liquids 23
Flammable Liquids: DOT, RCRA, and OSHA Definitions *23*

Copyright © 2011 Clean Harbors

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 19
PAGE: 5 OF 9

Combustible Liquid Materials ... *24*
Class 4 Flammable Solids ... 24
Division 4.1 ... *24*
Division 4.2 ... *25*
Division 4.3 ... *25*
Class 5 Oxidizing Substances & Organic Peroxides ... 25
Division 5.1 Oxidizers ... *25*
Division 5.2 Organic Peroxides ... *25*
Class 6 Poisons ... 26
Division 6.1 Poison ... *26*
Division 6.2 Infectious Substance ... *27*
Risk Groups ... *28*
Class 7 Radioactive Materials ... 29
Class 8 Corrosive Materials ... 29
Effects on Steel or Aluminum ... *29*
Acids, Bases and pH ... *30*
Class 9 Miscellaneous Materials ... 30
Other Regulated Materials (ORM-D) ... 31
Limited Quantities ... 32
Material of Trade ... 33
Packaging Requirements ... *33*
Hazard Communication Requirements ... *34*
End of Chapter Exercises ... 35
THE HAZARDOUS MATERIAL TABLE ... 37
Introduction ... 37
The Hazardous Material Table (Columns 1 – 5) ... 37
Column 1: Symbols ... *38*
Column 2: Proper Shipping Name ... *38*
Interchangeable Terms in Proper Shipping Names ... *39*
Qualifying Terms ... *39*
Hazardous Waste ... *39*
Column 3: Hazard Classes ... *39*
Column 4: Identification Number ... *40*
Column 5: Packing Group ... *40*
The Hazardous Material Table (Columns 6 – 10) ... 40
Column 6: Labels ... *41*
Column 7: Special Provisions ... *41*
Packaging Authorizations - Column 8 ... *42*
Column 9: Aircraft and Rail ... *44*
Column 10: Vessel ... *44*
End of Chapter Exercises ... 45
EMERGENCY RESPONSE INFORMATION ... 47
Introduction ... 47
Guidebook Contents ... 47
Emergency Response Exercises ... 51
SHIPPING PAPERS ... 53
Introduction ... 53
Administration of Hazmat Shipping Papers ... *53*
Required Components ... 54
Mixed Hazardous and Non-Hazardous Materials ... *54*
Consignor's Name and Address ... *54*
Consignee's Name and Address ... *54*
Transporter's Name ... *54*

Copyright © 2011 Clean Harbors

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 19
PAGE: 6 OF 9

Basic Shipping Description ... 55
Certification Statement ... 56
Emergency Response Telephone Number ... 57
Additions to the Basic Shipping Description ... 57
Subsidiary Risks ... 57
Hazardous Substances (RQ) ... 57
Poison Inhalation Hazards ... 58
Special Permits (formally known as exemptions) ... 58
Technical Names ... 59
Technical Names and Generic Entries ... 59
Technical Names and Solutions or Mixtures ... 59
Technical Names and Organic Peroxides ... 60
Technical Names and Marine Pollutants ... 60
Technical Names and Hazardous Waste ... 60
Technical Names and Toxic or Poisonous Substances ... 60
Technical Names and Labpacks ... 61
Empty Packages ... 61
Additional Entries for Limited Quantities ... 61
Additional Entries for Radioactive Materials ... 62
Additional Entries for Rail ... 62
Additional Entries for Air ... 62
Additional Entries for MC 330 or MC 331 Cargo Tanks ... 62
Additional Entries for Water ... 63
Additional Entries for Marine Pollutants ... 63
Additional Entries for Wastes ... 64
Shipping Paper Accessibility ... 64
End of Chapter Exercises ... 65
HAZARDOUS WASTE MANIFEST ... 67
Introduction ... 67
Basic Shipping Descriptions ... 68
Using Hazard Class Names and Subsidiary Classes ... 68
Listing Materials as Separate Line Items ... 70
Completing the Uniform Hazardous Waste Manifest ... 71
Instructions for Generators ... 72
Instructions for Transporters ... 78
Instructions for Generators ... 81
Instructions for Transporters ... 83
Waste Rejections ... 84
Unmanifested Waste Reporting Requirements ... 87
Recordkeeping and Reporting ... 87
Appendix A - Hazardous Waste Manifest (EPA Form 8700-22) ... 89
Appendix B - Hazardous Waste Manifest Continuation Sheet (EPA Form 8700-22A) ... 90
Appendix C - What constitutes a significant discrepancy? ... 91
Appendix D - What residues are acceptable in containers? ... 92
Administrative Issues ... 92
Large Quantity Generators (LQG) ... 93
Small Quantity Generator (SQG) ... 93
End of Chapter Exercises ... 95
LABELS & MARKINGS ... 97
Introduction ... 97
Marking Non-Bulk Containers ... 97
DOT Marking Requirements ... 97
Empty packages ... 99
Markings and Overpacking ... 100

Copyright © 2011 Clean Harbors

U.S. DOT/PHMSA/OHME/CE
REPORT NUMBER: 11242024
EXHIBIT NUMBER: 19
PAGE: 7 OF 9

EPA Marking Requirements 100
Hazardous Waste Warning Statement *100*
Generator's Name and Address *101*
Generator's EPA Identification Number *101*
Manifest Document Number *101*
Accumulation Start Date *101*
DOT Labeling Requirements 102
Primary and Subsidiary Labels *102*
Placement of Labels *102*
Multiple Labels *102*
Labels and Overpacking *102*
Small Quantities and US DOT Labeling and Placarding Exceptions *103*
Bulk Package Markings 103
Exemption *104*
Portable Tanks *104*
Marine Pollutant Marking *105*
End of Chapter Exercises 106
PLACARDS 109
Introduction 109
Placarding Restrictions *109*
Recap of Bulk vs. Non-Bulk Packages *109*
Determining Applicable Placards 110
TABLE 1: Always Placard *110*
General Placarding Requirements 112
Residue in Bulk Packages *112*
Non-Bulk Packages (e.g., drums) *112*
Bulk Packages (e.g., tanks, totes, or boxes) *113*
Visibility and Display Requirements 113
US DOT Placards 115
US DOT Placards (continued) 116
End of Chapter Exercises 117
PERFORMANCE ORIENTATED PACKAGING & CLOSURE 119
Introduction 119
Terminology: Package and Packaging 119
Package. *119*
Packaging *119*
UN Certification Code Label 120
UN Symbol *121*
Packing Type Code *121*
Packing Group Code *121*
Gross Mass or Specific Gravity *122*
Solid (or Inner) Packaging Indication or Test Pressure *122*
Year of Manufacture *122*
Country of Manufacture and Testing *122*
Name and Address or Symbol of Manufacturer *122*
Nominal Thickness *122*
Rated Capacity *122*
Examples of UN Certification Code Labels 123
Steel Drum Containing Solids *123*
Plastic Drum Containing Liquids *123*
Performance Tests of UN Specification Packages *123*
Drum Closure 124
Regulatory Requirements *124*
Plastic Drum Example *125*

Copyright © 2011 Clean Harbors

Steel Drum Example 127
End of Chapter Exercises 129
HAZMAT SEGREGATION & LOAD SECUREMENT 131
Introduction 131
Hazmat Segregation Table Instructions 132
Hazmat Highway Segregation Table 133
Load Securement 134
Load Securement Devices 134
Types of systems may be used to secure our load 134
Types of common securement devices 134
General Rules for Cargo Securement 135
Number of Tie downs to Use 136
In-Transit Load Securement Checks 136
End of Chapter Exercises 137
SECURITY AWARENESS 138
Introduction 138
Training Requirements 139
Hazmat Security Risks 139
Flammables 140
Poisons 140
Corrosives 141
Radioactive Materials 141
Infectious Substances 142
Identifying Potential Security Threats 142
EXHIBIT I – The Driver 143
EXHIBIT II – The Cargo 143
EXHIBIT III – The Vehicle 144
EXHIBIT IV – The Route 144
SPECIAL EXHIBIT I – Hijacking and Theft 145
Responding to Security Threats 145
Imminent Threats 145
Potential Threats 146
Collecting information 146
Enhancing Transportation Security 147
Managers and Supervisors 147
Dispatchers 147
Vehicle Operators 148
Loaders, Unloaders, Receivers, and Offerers 148
Technology 148
Appendix A – FBI Field Offices 149

Copyright © 2011 Clean Harbors

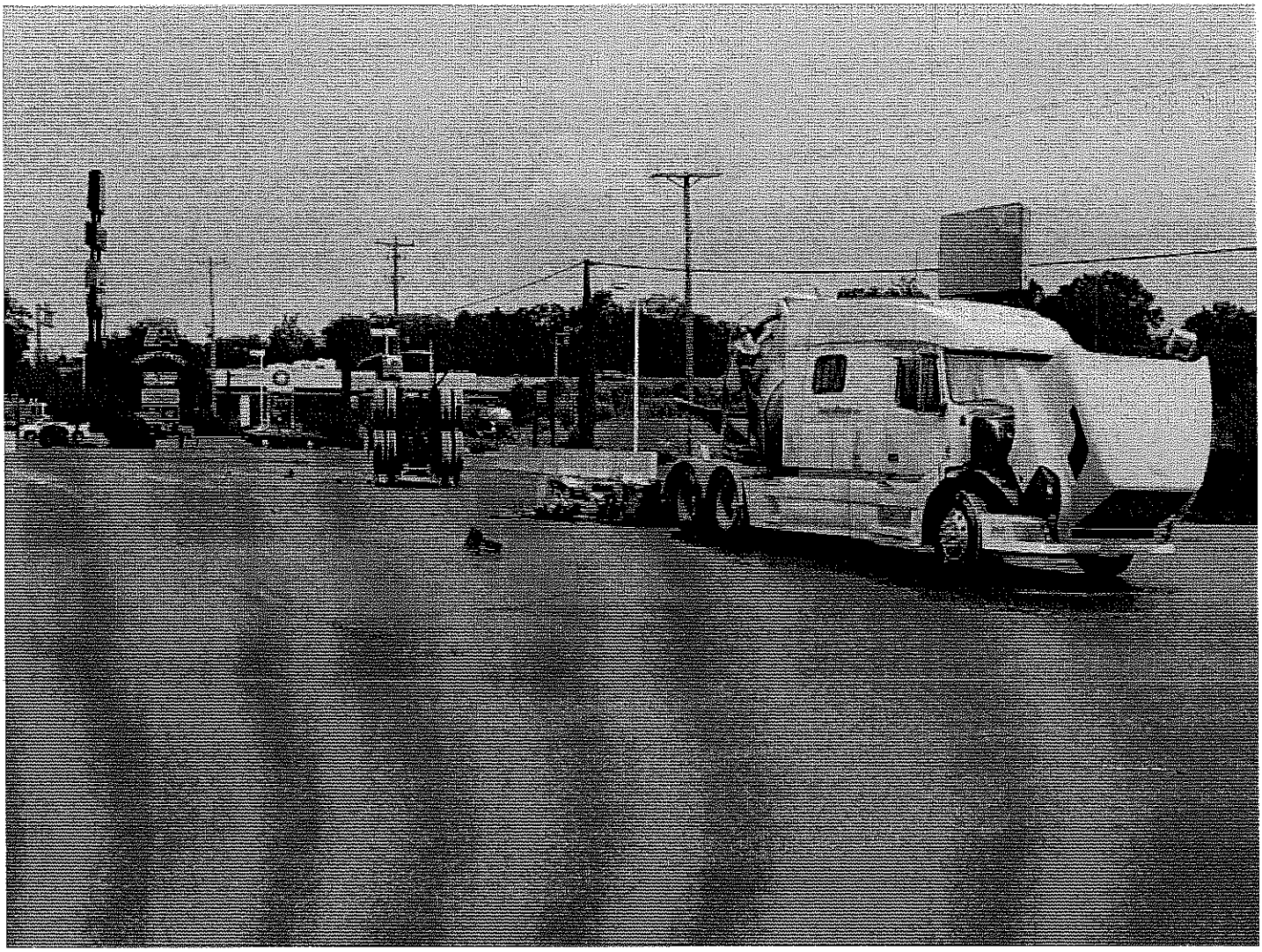
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



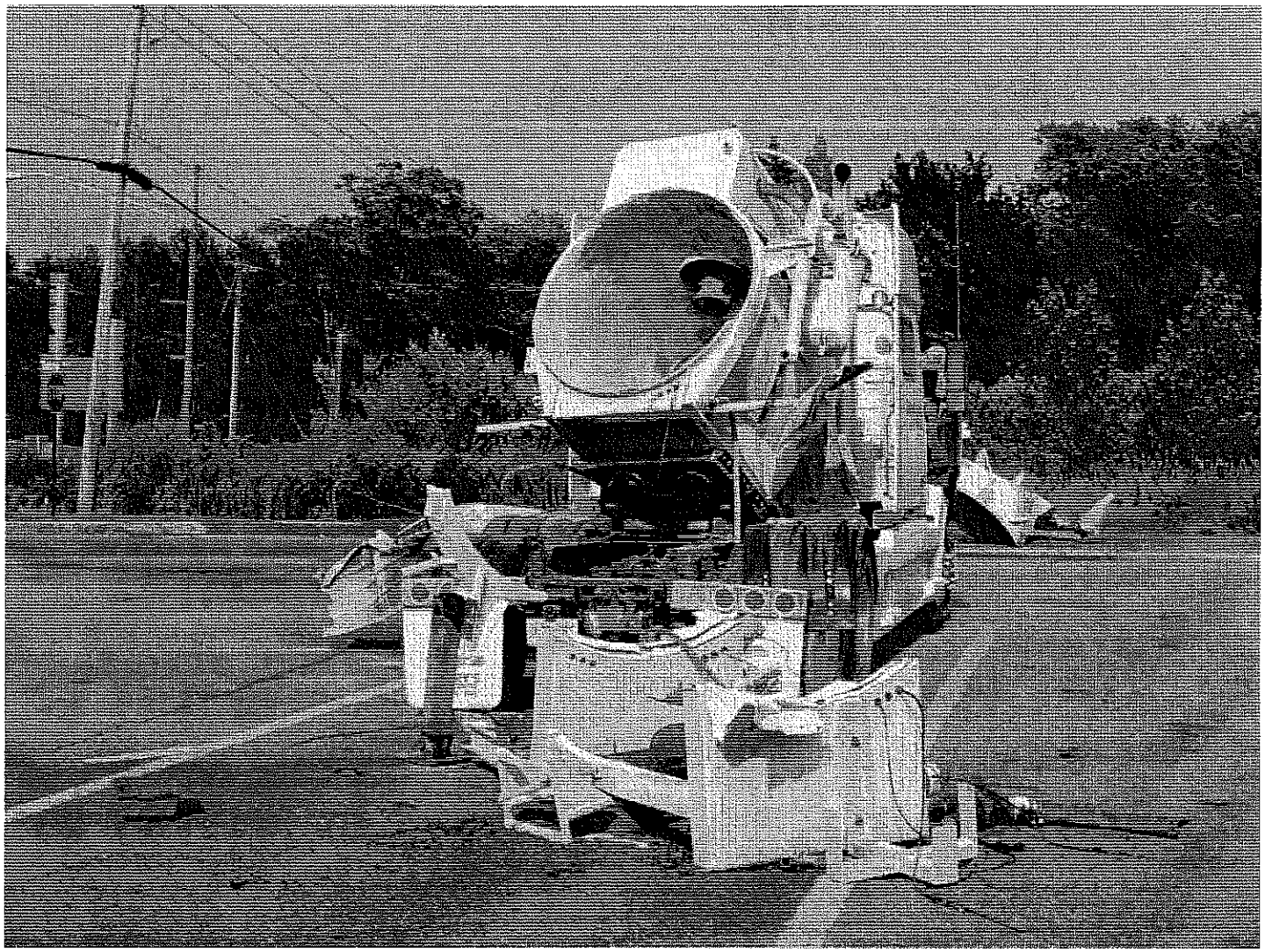
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



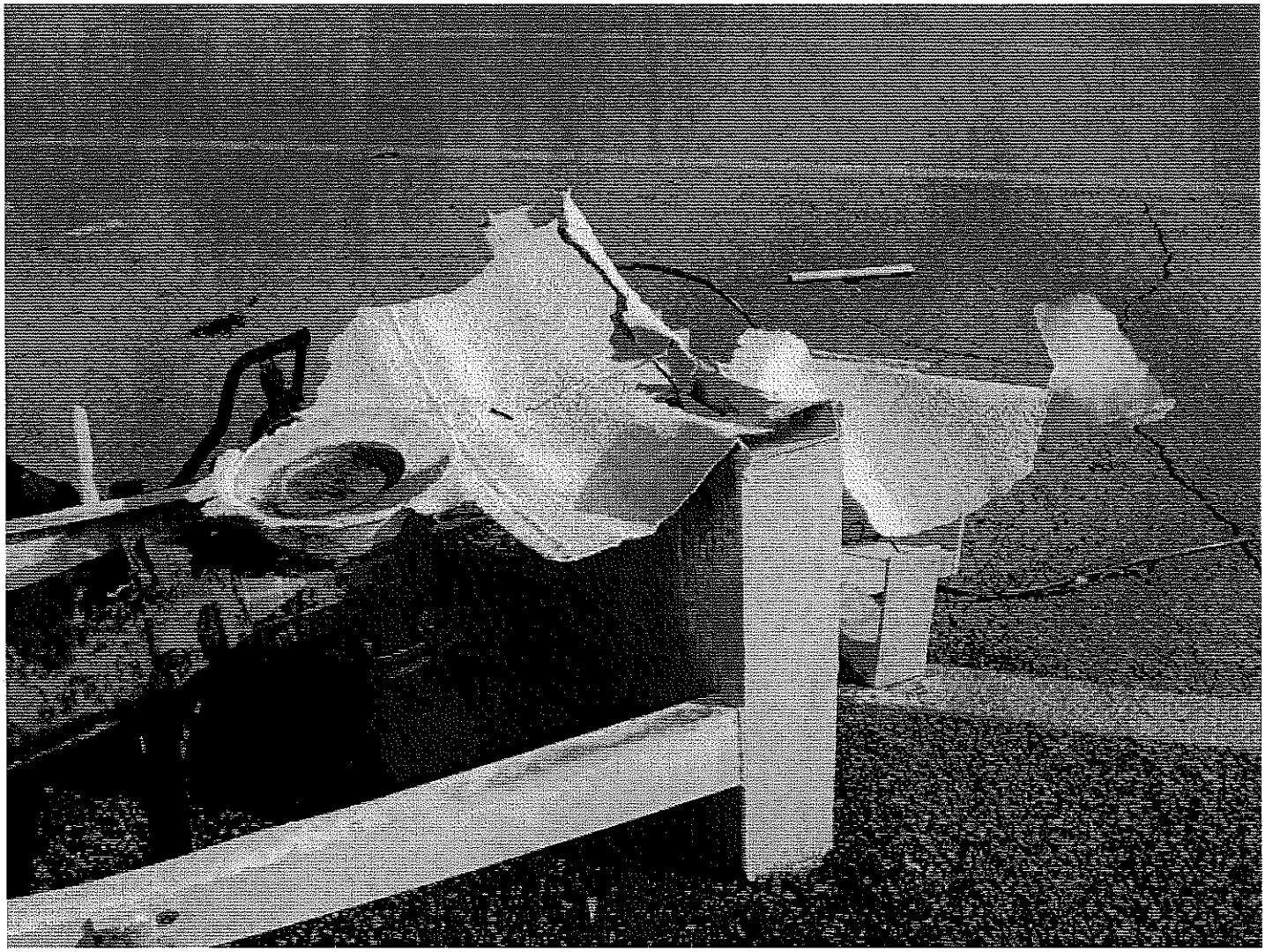
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



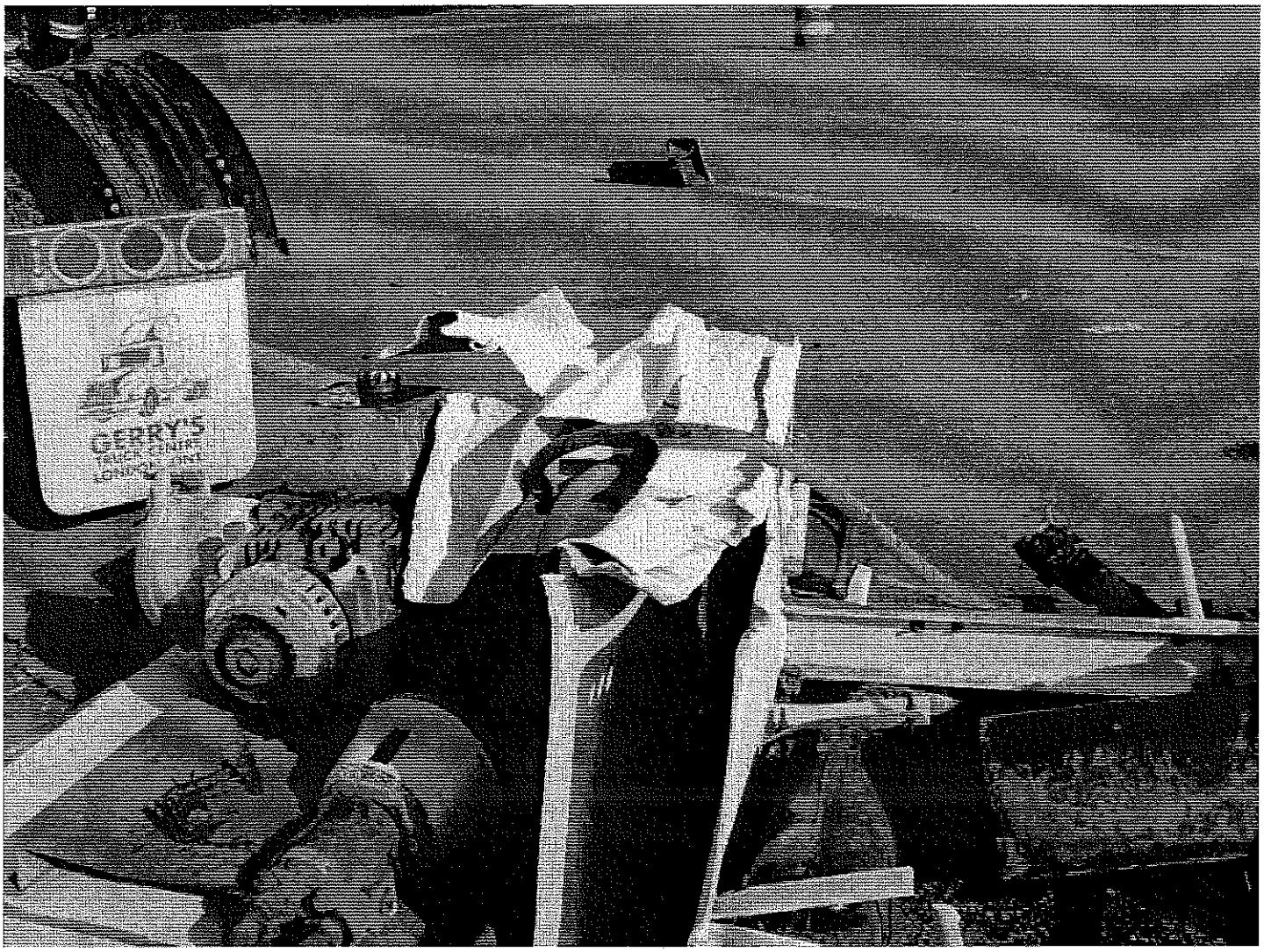
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



U.S. DOT/PHMSA/OHME	
Report Number:	11242024
Exhibit Number:	20
Page Number:	4 of 10

PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:

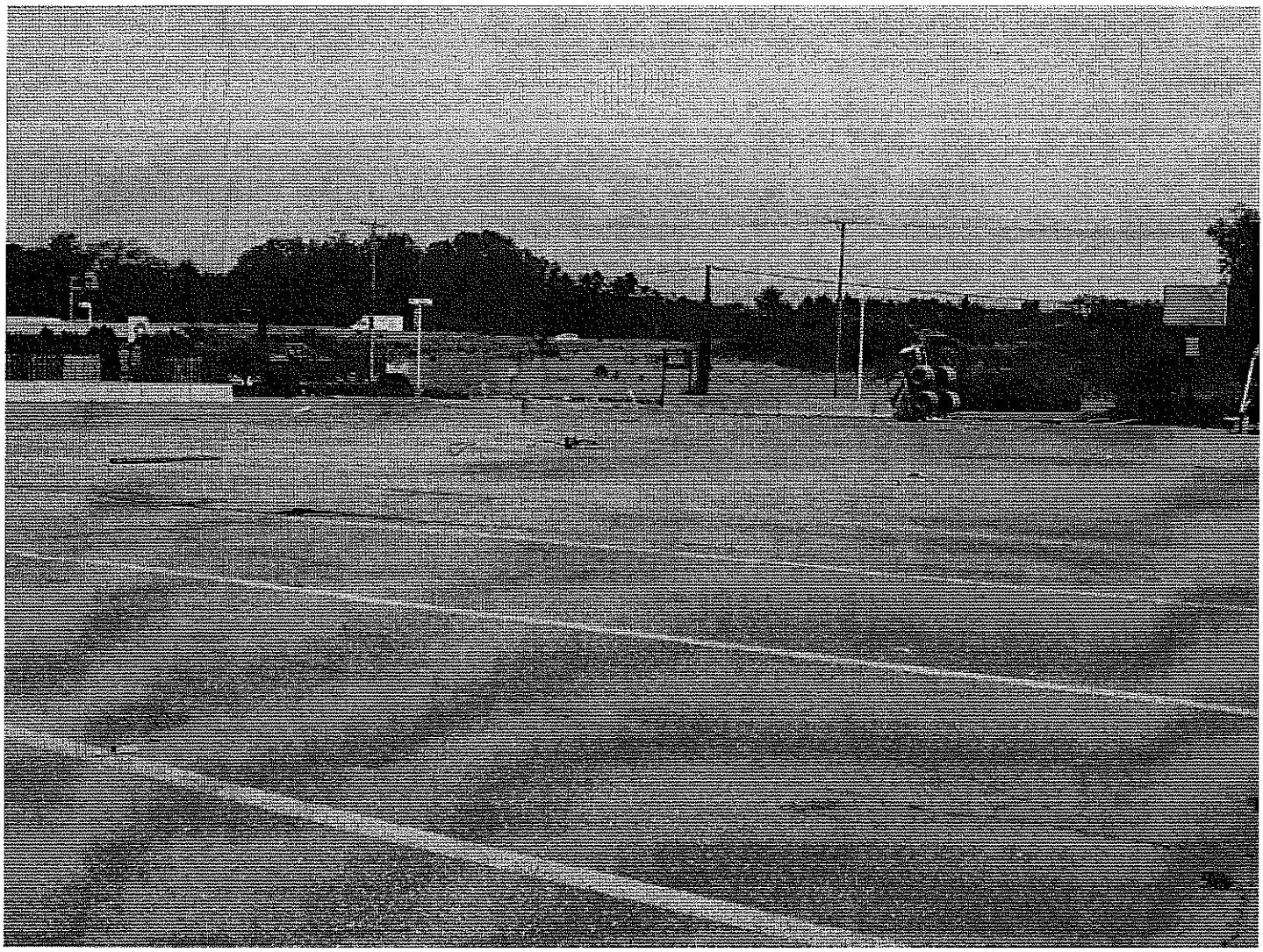
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



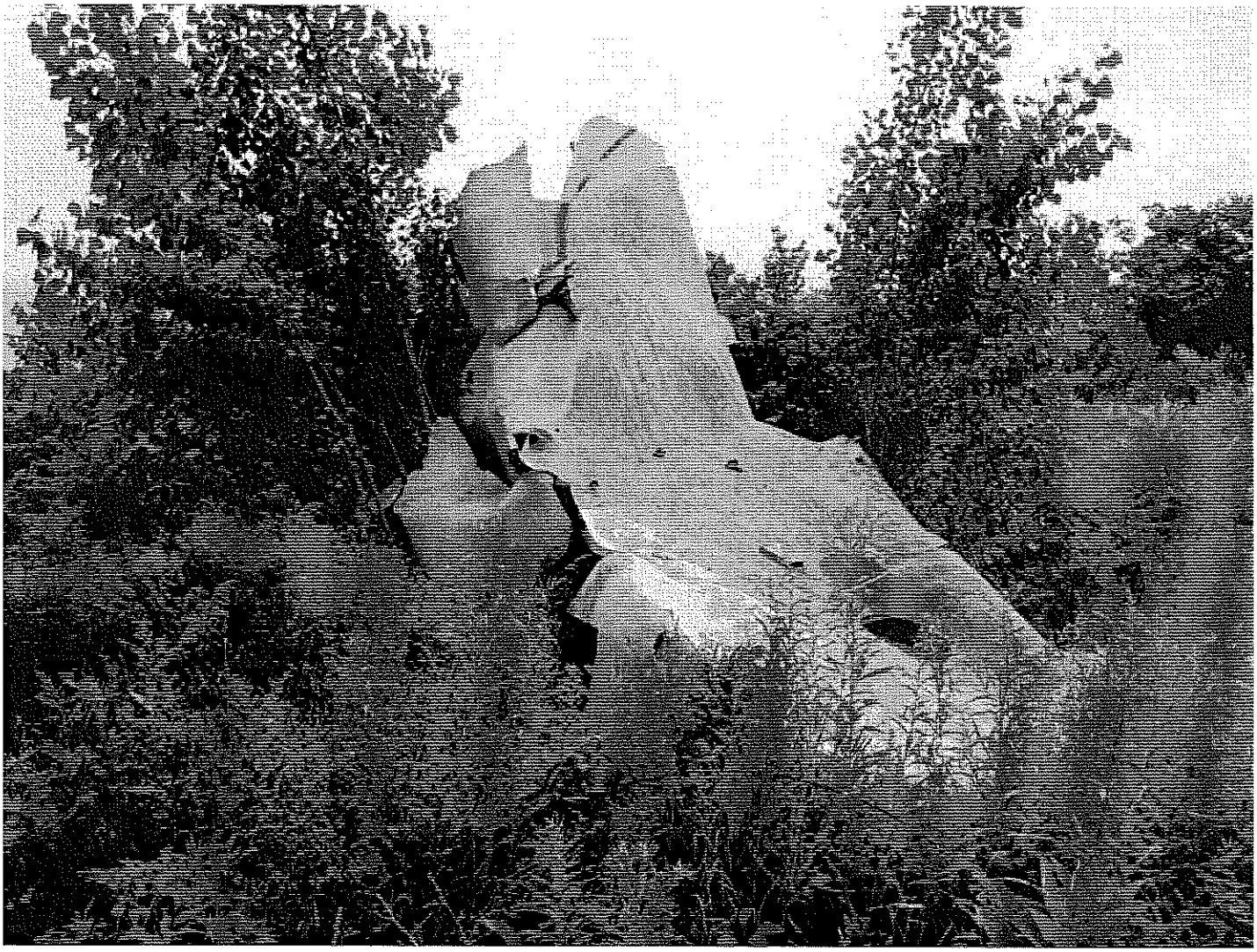
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:

PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:

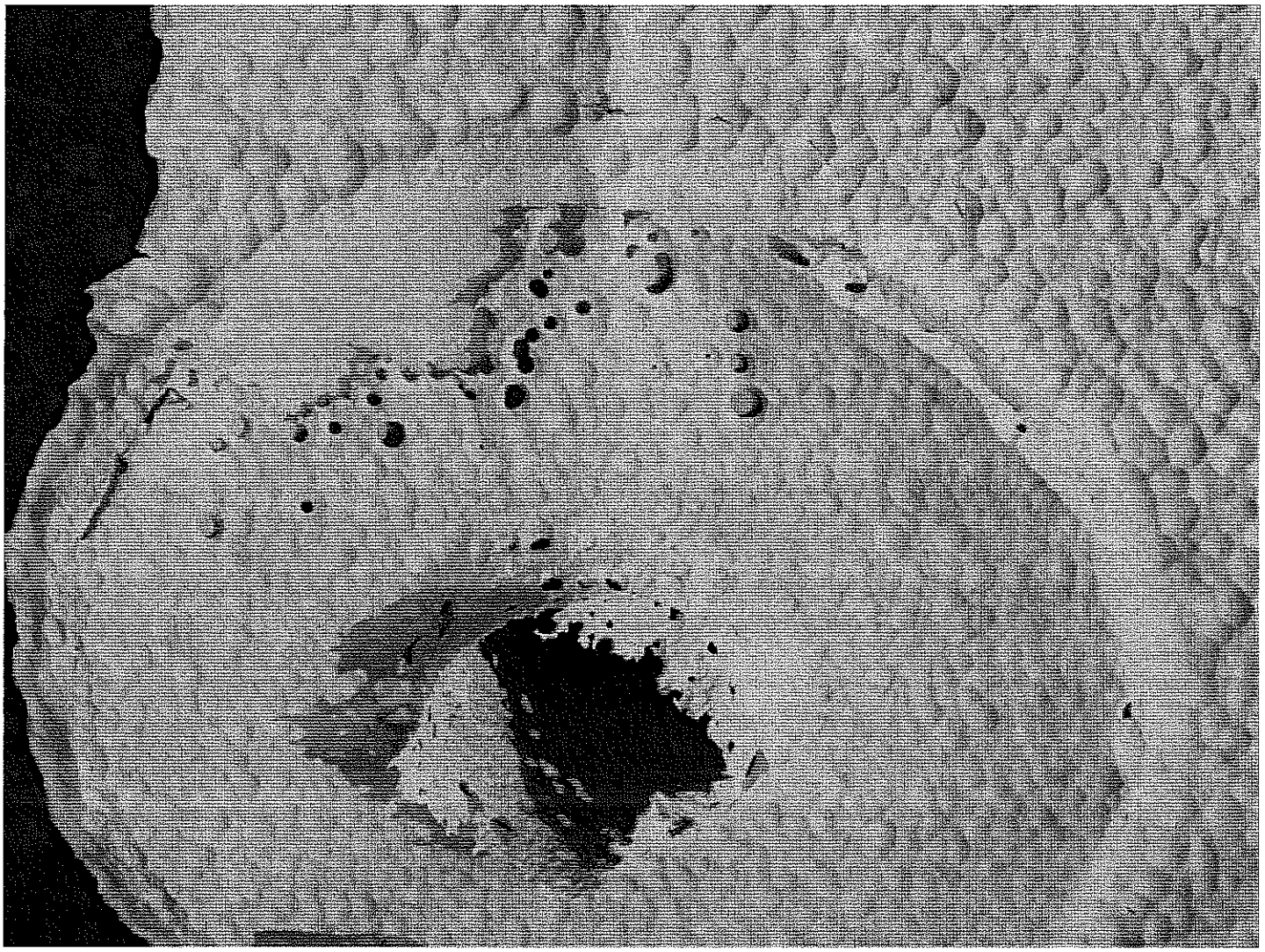
PHOTOGRAPHIC EXHIBIT

Location: Travelcenters of America
Sawyer, MI

Date: Date of incident and beyond

Photographer: Randy Badiuk, Marcus LTD

Camera:



US Department of Transportation
Pipeline & Hazardous Materials Safety Administration
Office of Hazardous Materials Enforcement
Oral Interview Form

Investigator Conducting Investigation Name: Ted Turner Title: Hazardous Materials Investigator Report Number: 11242024	**Respondent** Company: Clean Harbors Environmental Services of Chicago Address: 1445 West 42nd Street, Chicago, IL, 60609
Person Interviewed Name: Alfred Aghapour Title: General Manager Company: Clean Harbors Environmental Services of Chicago City/State: Chicago, IL	**Date and Type of Interview** Date: 7/27/11· In Person: X Telephone:

SUBSTANCE OF INQUIRY AND ANSWERS GIVEN (NOT A TRANSCRIPT)

On July 27, 2011 and July 28, 2011, Investigator Ted Turner conducted a compliance inspection at Clean Harbors Environmental Services Company of Chicago (Clean Harbors), a processor and recycler of hazardous materials. The company processes hazardous waste and recovers hazardous materials and ships both hazardous waste and recycled hazardous materials.

Mr. Alfred Aghapour, General Manager and Gary Malinowski, Senior Compliance Manager, represented Clean Harbors, answered questions, furnished documentation and escorted the investigator through the facility. The inspection consisted of reviewing shipping papers, packaging, safety, training and security matters.

During an investigation into a hazardous materials incident in Sawyer MI of a cargo tank load of hazardous waste shipped by Clean Harbors Mr. Aghapour was interviewed regarding the materials shipped. He indicated the company uses a 50% solution of sodium hydroxide in a distillation process to recycle different flammable liquids from waste materials shipped to the facility by various vendors. Some vendors want the recycled materials back, others do not. Once the sodium hydroxide solution material reaches between a 10-20% strength it is no longer suitable for the distillation process and it is stored in a tank with other liquid materials from other processes for disposal since it can not be sent through the sanitary sewer system. Several days prior to shipping a load from this "mixture" the company pulls a sample and conducts an analysis to determine the appropriate waste stream and a proper shipping description. In addition a sample is pulled from the cargo tank after the tank has been loaded in case there are issues with the load.

US Department of Transportation
Pipeline & Hazardous Materials Safety Administration
Office of Hazardous Materials Enforcement
Oral Interview Form

Investigator Conducting Investigation Name: Ted Turner Title: Hazardous Materials Investigator Report Number: 11242024	**Respondent** Company: Clean Harbors Environmental Services of Chicago Address: 1445 West 42nd Street, Chicago, IL, 60609
Person Interviewed Name: Ronald A. Pawlak Title: Shipping & Receiving Technician Company: Clean Harbors Environmental Services of Chicago City/State: Chicago, IL	**Date and Type of Interview** Date: 7/28/11 In Person: X Telephone:

SUBSTANCE OF INQUIRY AND ANSWERS GIVEN (NOT A TRANSCRIPT)

On July 27, 2011 and July 28, 2011, Investigator Ted Turner conducted a compliance inspection at Clean Harbors Environmental Services Company of Chicago (Clean Harbors), a processor and recycler of hazardous materials. The company processes hazardous waste and recovers hazardous materials and ships both hazardous waste and recycled hazardous materials.

Mr. Alfred Aghapour, General Manager, Mr. Ronald A. Pawlak, Shipping & Receiving Technician and Gary Malinowski, Senior Compliance Manager, represented Clean Harbors, answered questions, furnished documentation and escorted the investigator through the facility. The inspection consisted of reviewing shipping papers, packaging, safety, training and security matters.

During an investigation into package closure Mr. Aghapour indicated Mr. Pawlak did most of the package closure at Clean Harbors. Mr. Pawlak was requested to explain how he closed the two types of packages used by Clean Harbors. The drums he indicated were close by pounding on the clamp ring while tightening with the torque wrench until it clicked. I inquired if the wrench was still at the setting used when closing the drums and he indicated it was. The wrench was set at 75 foot pounds. When asked about the gap in the clamp ring he indicated he got it to about a ½ inch and tightened the lock nut up on the bolt. When asked if he checked the gap he indicated he got it to between ½ and ¼ inch but did not measure the gap. I regard to the IBC fill caps he indicated he used a different torque wrench, it had a ½ inch drive, and the special tool to go on the cap and tightened the cap on with it. Mr. Pawlak was then told both packages were not closed correctly and the closure instructions were reviewed to ensure he knew how they were actually supposed to be closed.

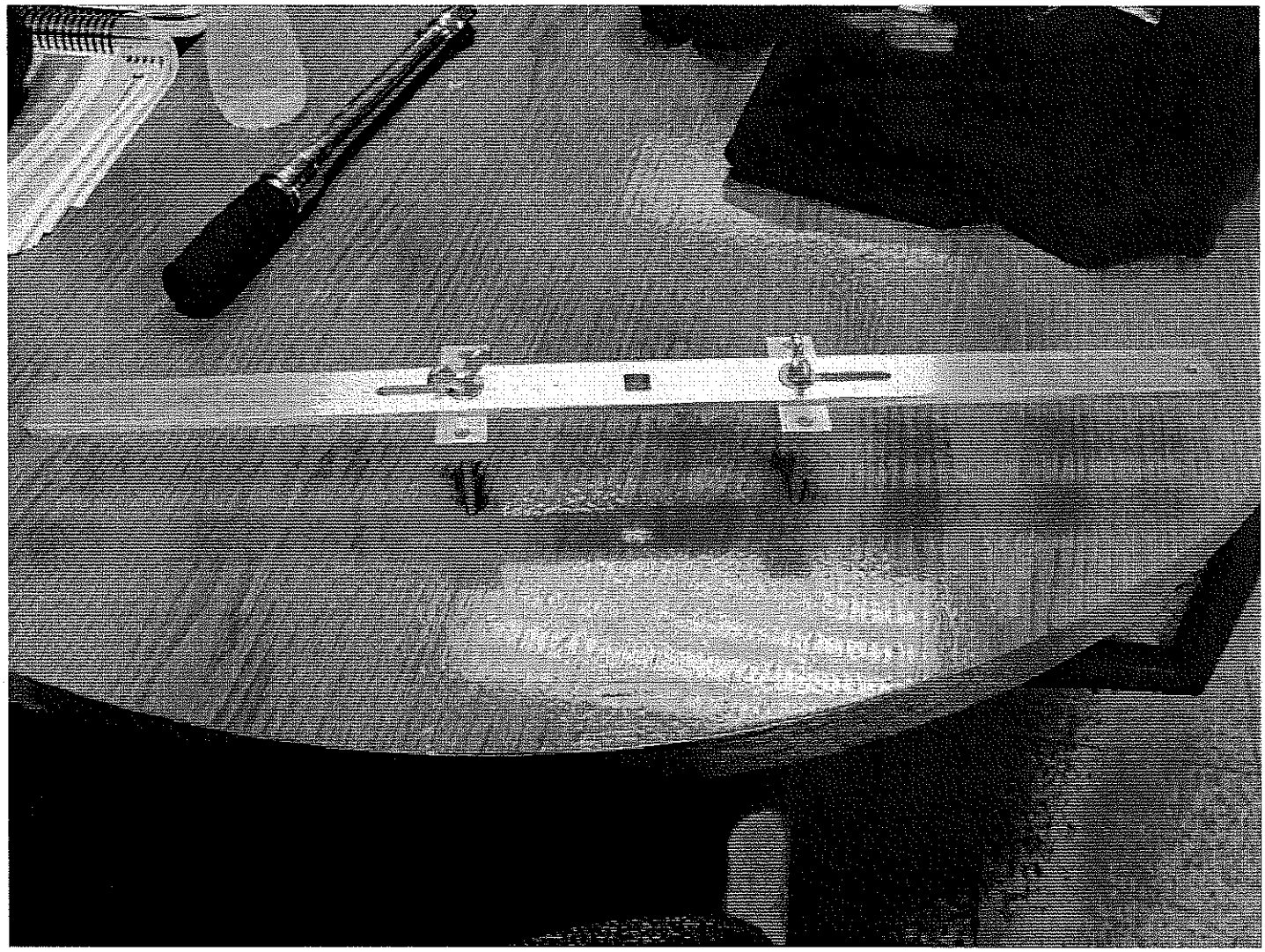
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 6/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	23
Page Number:	1 of 3

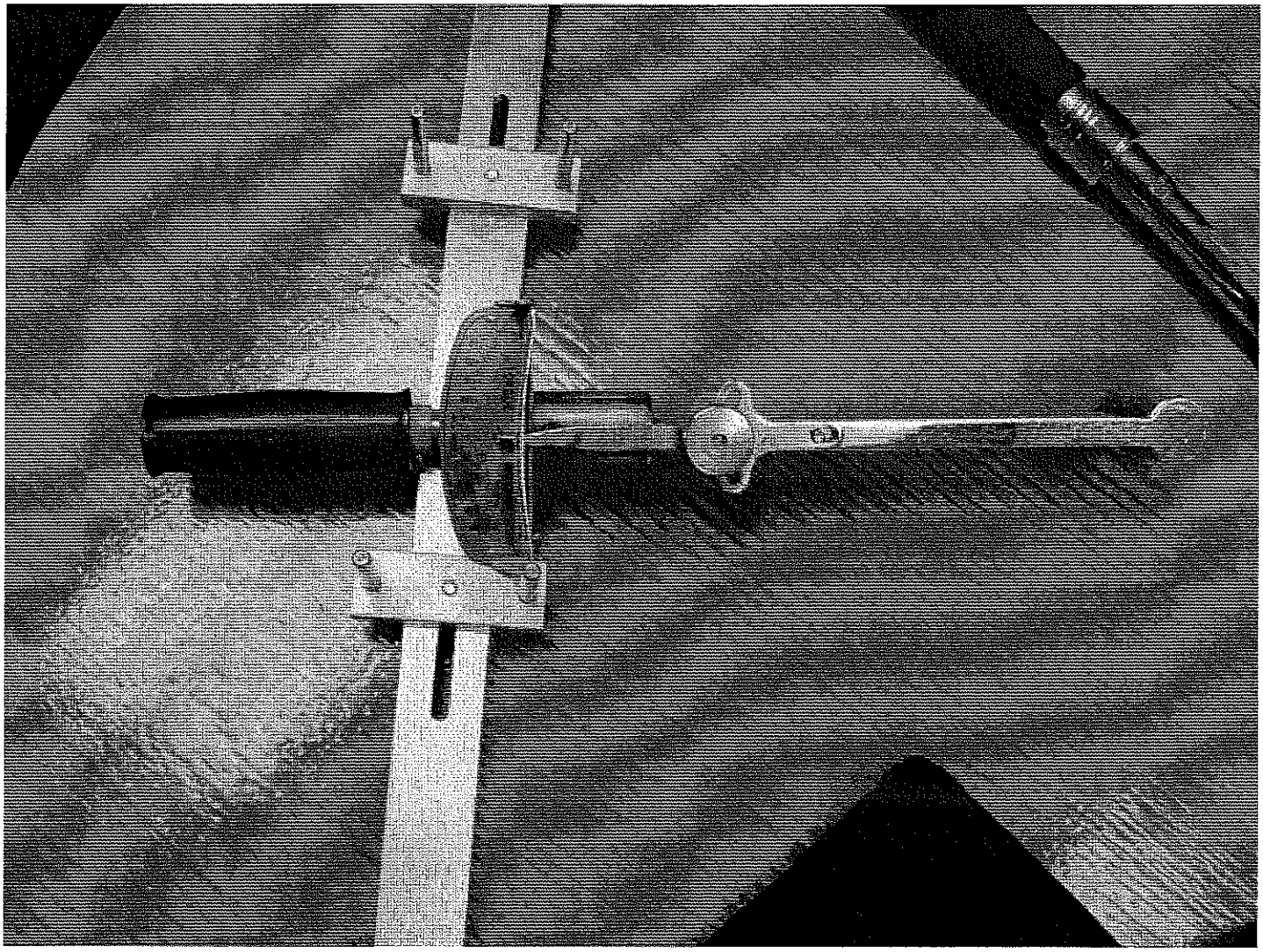
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 6/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	23
Page Number:	2 of 3

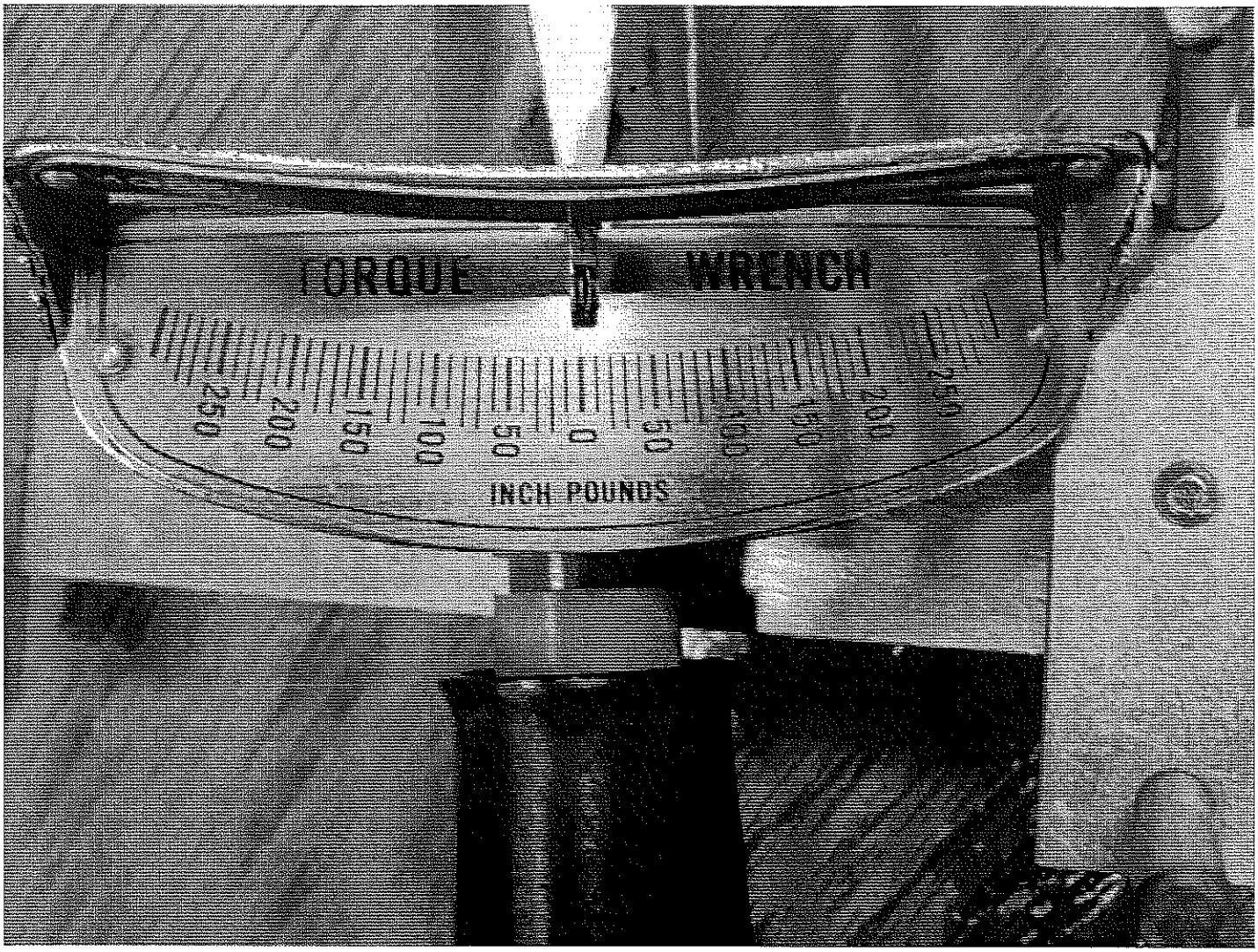
PHOTOGRAPHIC EXHIBIT

Location: Clean Harbors Environmental Services of Chicago
Chicago, IL

Date: 6/28/2011

Photographer: Ted Turner

Camera: Canon PowerShot SX120 IS



U.S. DOT/PHMSA/OHMS	
Report Number:	11242024
Exhibit Number:	23
Page Number:	3 of 3

On 7/22/11 at approximately 5:33 PM I interviewed the truck drive, DARYL CALVANK, of Harold Marcus Trucking in reference to a bleve or a tanker he was pulling. I advised Mr. Calvank that I was a criminal investigator assigned to the DEQ and provided him with a business card. He advised that he has already spoken to a number of investigators including MSP Motor Carrier but wanted to cooperate. He provided a cell phone number of 947-517-6099.

I asked Calvank to tell me what type of tractor and trailer he was operating and he advised that he was driving a 2009 Volvo with Ontario registration 6057PE and pulling a 1986 Brennan tanker with Ontario with Ontario registration B17850. He further advised that he has been employed with Harold Marcus for the last six years. Harold Marcus is located in Bothwell, Ontario and their phone number is 800-265-9426.

I then requested Calvank explain how he came to be in possession of the trailer and what happened. Calvank stated that he brought an empty trailer (which had a previous load of calcium chloride and had not been cleaned) and arrived at Clean Harbours in Chicago at approximately 11:00 AM Central time. He checked in, pulled around to loading bay and dropped the trailer. He then went to the staging area and waited approximately 3 hours. When Clean Harbours notified him the load was ready to go, he hooked the trailer up, inspected the seals on the top and bottom and picked up his manifest and other paperwork. He then left eastbound to Corunna Ontario.

Calvank stated that he then pulled into Lake Station Indiana to stop for dinner and to check the pressure gauge. He advised it was a little high, but not unusual because of the heat of the day and sun so bled the pressure off and after eating continued eastbound.

He then advised that around 5:00 PM he pulled into the Sawyer truck stop to again check the pressure. He advised that he put the window down to assist him in backing up the trailer and he got a smell of product. He then parked and did a walk around and observed product dripping from the middle of the bottom of the tanker. He grabbed his catch basin and put it under the leak as well as some absorbent pads for what had already leaked on the parking lot. Calvank stated that he then called his dispatch and told them he had an active leak. He then utilized the vacuum on the trailer and was able to stop the product from leaking. He advised the vapors were getting stronger and so he went to the desk at the truck stop and told the manager he had a leak and they needed to cordone off the parking lot.

Calvank further advised that at 5:10 PM he ran back to the scene and started waking up drivers in the adjoining trucks and the manager came out and told him that she called the fire department and that Harold Marcus Trucking called Clean Harbours at about the same time. Calvank stated that the first responders arrived within 10 minutes. Calvank stated that he never left the area of the trailer after that. He stated that about 8:00 PM the trailer started leaking again in the same spot so he put on his respirator and went to check on the status of the vacuum. He found out it was not working and tried revving the engine to engage it again. He stated he got out and looked and now there was a steady stream of product coming out of the trailer. He stated that around 8:40 to 8:45 PM he went in and

decided to shut off the ignition to the tractor and he then heard a hiss and whistle and advised that usually indicates that you have a PSI of 32-35 and that the trailer exploded at about 9:15 PM.

Calvank advised that he believed that something was wrong upon his first view of the trailer leaking because it was dropping to the pavement and then splashing on the trailer and was reacting with the aluminum.

2009

Trailer	Shell Type	Shipping Name	Constituent	Manifest Number
686	Aluminum	Flammable Liquid NOS	Tetrahydrofuran	003916939JJK
3756	Stainless	Flammable Liquid NOS	Tetrahydrofuran	003916948JJK
684	Aluminum	Flammable Liquid NOS	Tetrahydrofuran	003916950JJK
3734	Stainless	Flammable Liquid NOS	Tetrahydrofuran	003916949JJK

2010

677	Aluminum	Flammable Liquid NOS	Methyl Ethyl Ketone	000039720MWI
686	Aluminum	Flammable Liquid NOS	Methyl Ethyl Ketone	00003979MWI

2011

3768	Stainless	Flammable Liquid Toxic NOS	Isoamyl Alcohol	003109047FLE
3739	Stainless	Flammable Liquid NOS	Tetrahydrofuran	000039867MWI
686	Aluminum	Flammable Liquid NOS	Tetrahydrofuran	000039854MWI
3767	Stainless	Flammable Liquid NOS	Isoamyl Alcohol	000039853MWI
3751	Stainless	Flammable Liquid NOS	Tetrahydrofuran	000039837MWI
686	Aluminum	Flammable Liquid NOS	Isoamyl Alcohol	000039821MWI
686	Aluminum	Flammable Liquid NOS	Tetrahydrofuran	0000398540MWI
677	Aluminum	Flammable Liquid NOS	Isoamyl Alcohol	000039835MWI
684	Aluminum	Flammable Liquid NOS	Tetrahydrofuran	000039819MWI

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 ID Number: MIK552779290
2. Page 1 of: 1
3. Emergency Response Phone: 800 265 9426
4. Manifest Tracking Number: 000039890 MWI

5. Generator's Name and Mailing Address: HAROLD MARCUS LIMITED
15123 LONGWOODS ROAD RR#3
BOTHWELL ON N0P 1C0
Generator's Site Address (if different than mailing address):
Generator's Phone: (519) 695-3734

6. Transporter 1 Company Name: HAROLD MARCUS LIMITED
U.S. EPA ID Number: MIT 270012321

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: CLEAN HARBORS RECYCLING SERVICES OF CHICAGO LLC
1445 W. 43ND STREET
Facility's Phone: CHICAGO, ILLINOIS 60609 (773) 247-2828
U.S. EPA ID Number: ILD005450697

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN 3266, RQ - WASTE CORROSIVE LIQUID, BASIC, INORGANIC, NOS (SODIUM HYDROXIDE), 8, PGI (D002)	001	TT	3500	G	D001 D002 D004 D005 D006 D007
	2.					
	3. RESIDUE LAST CONTAINED					
	4.					

14. Special Handling Instructions and Additional Information: ERG ~~122~~ 154

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RANDY BODNIK
Signature:
Month Day Year: 07 24 11

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alan Fuller
Signature:
Month Day Year: 07 24 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

18. Discrepancy
18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Ronald A Pawlak
Signature: Ronald A Pawlak
Month Day Year: 07 24 11

GENERATOR | TRANSPORTER | DESIGNATED FACILITY

U.S. DOT/PHMSA/OHMS
Report Number: 11242024
Exhibit Number: 26
1 of 1

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149

781.792.5000
800.282.0058
www.cleanharbors.com

Certified Mail 7008 1140 0002 1411 1474

August 24, 2011

Mr. Ted Turner
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
Office of Hazardous Materials Safety, Field Operations, Central Region
2300 E. Devon Avenue, Suite 478
Des Plaines, IL 60018

RE: Clean Harbors Recycling Services of Chicago, LLC
Report Control # 11242024, Exit Briefing July 28, 2011

Dear Mr. Turner:

Clean Harbors Recycling Services of Chicago, LLC ("Clean Harbors") has had an opportunity to review the Exit Briefing document issued by your office as a result of an inspection conducted 1445 West 42nd Street in Chicago, IL on July 28, 2011. Specifically, it is alleged that Clean Harbors is in violation of the hazardous materials regulations by:

1. Offering a shipping paper to a motor carrier with an improper shipping description;
2. Offering a hazardous material for transportation in a package that was incompatible with the material of construction of the package;
3. Offering hazardous materials for transportation and failing to close the package in accordance with the manufacturer's instructions; and
4. Failing to create and retain hazardous material training records that include the name and address of the trainer as required.

Pursuant to instruction outlined in the Exit Briefing, Clean Harbors has conducted a comprehensive internal investigation into the allegations noted above and respectfully submits a summary of those corrective actions that are being taken to enhance and compliment existing systems to help reduce and/or eliminate the potential for a recurrence. In addition to responding to the Exit Briefing via this written communication, Clean Harbors respectfully requests the opportunity to schedule an in-person meeting at your office at your earliest convenience to review these corrective actions in greater detail.

Alleged Probable Violation #1:

Offering a shipping paper to a motor carrier with an improper shipping description

The internal investigation conducted by Clean Harbors first looked at the allegation that Clean Harbors offered a class 8 material using a shipping description for a Class 3 material which reacted in the cargo tank causing the tank to fail. Clean Harbors uses a multi step process designed to facilitate both transportation and disposal of material in compliance with all applicable regulatory requirements. The first step in the process is to analyze a representative sample of the material being offered for transportation. Based on the analytical results, the material is characterized using an in house waste profile that accurately describes the material in question based on specification ranges that will help determine appropriate end disposal treatment technologies. For example, these specifications may include the applicable PH range, flash point or the presence of toxic materials that will be used to categorize the waste stream for transportation and disposal. Once this information is reviewed, the individuals that are responsible for load preparation then select the appropriate profile used to direct the material to the appropriate destination facility. At this point, the facility shipping personnel then select the proper DOT shipping name based on their knowledge and/or analytical results. In this particular instance, the shipping personnel selected one of several USDOT Shipping Descriptions' the Company had in its database for this category of hazardous material but the selected USDOT description did not fully describe the waste as compared to the analytical data.

While we believe that the Company has complied with applicable regulations and industry standards Clean Harbors is taking the following remedial measures intended to reduce the likelihood of future incidents. The company is modifying its USDOT shipping description selection process such that there will only be one DOT shipping name available per profile. This will ensure that Clean Harbor's shipping personnel will compare the selected shipping description with available chemical analysis to select the profile and final shipping description that is consistent with the chemicals present rather than allowing the selection from a list of values. This information will also be provided to the transporter with explicit instructions on what type of tank to provide thus assuring compatibility between the shipment documentation and the material of construction specific to the transporting tank.
Upon arrival at the loading facility, the transporter will be required to provide confirmation that the tank has been washed and issued a certified tank wash receipt. Clean Harbors personnel will inspect the transport vehicle assigned to the shipment and insure that the tanker is certified empty

and clean. These personnel will also insure that a copy of the certified tank wash is available, that the tank trailer's specification plate is reviewed to insure the tank is compatible with the shipment and that all required inspections and permits are current. This amended process will act as a redundant check, assuring that the shipping documents will reflect any detailed load specific information that would have a bearing on selection of the correct USDOT Shipping description.

Alleged Probable Violation #2

Offering a hazardous material for transportation in a package that was incompatible with the material of construction of the package;

Based on the information collected during the course of our investigation, it was determined that the facility loading personnel were not aware of the fact that the tank in question was constructed of aluminum. They relied on their historical knowledge that the transporter routinely provided stainless steel tankers to the Clean Harbors Recycling Services of Chicago, LLC facility to remove a variety of hazardous materials from the site. They assumed that all tanks dispatched to their location for the purpose of removing the lean water waste streams were constructed of stainless steel. As indicated above, the Company has since modified its shipping container policies and procedures to insure that there are redundant checks in place so that the proper USDOT shipping container is always selected, taking into account all hazardous material information, analytical findings and the knowledge of the materials of construction of the shipping container. In addition, all third party transporters, as well as internal transportation resources have been put on formal notice that aluminum tank trucks or tank trailers will no longer be authorized for use for a majority of hazardous materials shipments within the Corporation.

Alleged Probable Violation #3

Offering hazardous materials for transportation and failing to close the package in accordance with the manufacturer's instructions

In response to this finding, additional torque wrench fittings with the specified 840 inch-pound rating for bolt securement on UN-specification packages were purchased and put into service thus assuring that the proper tools are available to secure the shipping container in accordance

CleanHarbors®

with shipping container manufacturers closure instructions. In addition, Clean Harbor's personnel conducted a survey of all containers used at this location to insure that current closure instructions are on file and that all necessary tools and supplies are available and in stock to insure all containers are secured properly.

Alleged Probable Violation # 4

Failing to create and retain hazardous material training records that include the name and address of the trainer as required

In response to the allegation that Clean Harbors failed to create and retain hazardous materials training records that comply with existing regulations, Clean Harbors audited its Personnel Training Software Program and discovered that the training course certificates on file at the facility did not include the name and address of the course instructor conducting the training on the printed document generated by the system. Please note, however, that Clean Harbors has a fully integrated PeopleSoft Employee Training Tracking Programs. Those programs do incorporate the instructor's name and employee ID, and address information in the database and this information is available within the system. This system is available at the facility and designated Plant Staff have access to the database. Unfortunately as we transfer from a paper training tracking system to an electronic one, the information in the electronic system does not always get into the paper file. The facility has updated all in house DOT training records to reflect the correct information.

Clean Harbors Recycling Services, LLC believes that the corrective actions taken will prevent a recurrence of this type of incident. We are committed to continuous improvement within our Operations and Transportation Compliance Programs with the goal of Zero-Incident's throughout the Company. If additional information is required, please do not hesitate to contact me at (781) 792-5760 or via e-mail at cellucci.anthony@cleanharbors.com.

Sincerely,

Anthony P. Cellucci
Vice President, Transportation Compliance

Cc: Alfred Aghapour, Clean Harbors Recycling Services, LLC

CBI p. 12 (Removed & placed in (BI) DMS

Clean Harbors

Clean Harbors is the leading provider of environmental, energy and industrial services throughout North America.

- 11,000 employees
- > 50 waste management facilities
- 60,000 Customers
- Operates in 37 States, 7 Canadian provinces, Puerto Rico & Mexico
- 200 Facilities

Clean Harbors is Committed to Maintaining the Safest, Most Compliant Network of Environmental Operations

- Clean Harbors was one of the largest contractors working on the Gulf Oil and the Yellowstone Oil Spill.
- Clean Harbors is the lead 3D contractor for the USDA in regards to the any animal disease out break including the Avian Flu.
- Clean Harbors was called upon by the various federal agencies to perform cleanup and recovery efforts following Hurricane Sandy, Katrina and Rita.
- Clean Harbors was called onsite to play a key role in supporting government agencies, utilities and business following the World Trade Center attacks.
- Clean Harbors decontaminated the New York City postal facility and two U.S. national television studios following several anthrax threats.

Standards of Ethical Professional Conduct for Clean Harbors and its Officers, Directors & Employees

III. Government and Regulatory Relations and Responsibilities

- It is the Company's standing Corporate Policy to comply with all applicable federal, state and local laws and regulations in the conduct of its business.

- The purpose of this section is to ensure that the Company, its associates and employees act and relate honestly and forthrightly with all governmental and regulatory agencies and all other persons or agencies in order to maintain the Company's reputation for credibility, honesty, integrity and the Company's standing as a good corporate citizen.

Corporate Environmental, Health and Safety Commitment

- *Clean Harbors, Inc., and its subsidiaries are committed to a standard of excellence as an environmental, health and safety leader and affirms to its employees, customers, shareholders and the public that it will always conduct its business activities in a manner which is protective of human health and the environment. The Clean Harbors' Corporate Environmental Health and Safety Policy is intended to ensure that the company continuously achieves superior performance in fulfilling this commitment:*
- We will continuously ensure that all our activities comply with all federal, state, provincial and local environmental, health and safety statutes and regulations and we will make every effort to exceed those standards whenever possible to further enhance health & safety and the environment.
- We will maintain and operate all our facilities and transportation equipment so they are safe, and protective of the environment.
- We will conduct ourselves as an environmentally responsible neighbor in the communities where we operate, and always strive to prevent or correct conditions that pose problems for public health, safety or the environment.
- We will conduct our operations in a manner that prevents pollution and conserves natural resources.
- We will strive to continually improve Clean Harbors' Environmental, Health and Safety Management System.
- We will conduct audits and self-assessments of compliance with this Policy, measure progress of the company's environmental, health and safety performance to ensure that results demonstrate continual improvement, and report periodically to the Chief Executive Officer, the Audit Committee of the Board and the Board of Directors on our performance.

2011 Transportation Statistics

- U.S. DOT rating scale; Satisfactory, Conditional and Unsatisfactory.
  - Clean Harbors = Satisfactory
- 67,878 shipments representing 3,407,133 non-bulk packages.
- 3,306 shipments representing 100173 regulated and non regulated PCB transformers.
- 32,564 shipments representing 57,429 bulk liquid shipments (note multiple shipments may be combined within the same straight tank or cargo tank).
- 26,318 shipments representing 29,532 roll-off/intermodal bulk containers (Note: A shipment may include two (2) roll-off containers on the same roll-off trailer).

Clean Harbors Recycling Services of Chicago
1445 W. 42nd St. Chicago IL

Facility History

- Started in 1969 as a privately held company called "Custom Organics Inc."
- The facility is located in the South side of Chicago better known as "Stockyards Industrial Park"
- The facility was purchased by Safety-Kleen Corp. in 1985
- The facility was purchased by Clean Harbors in March 2008

Nature of Business & Site

- Tolling and/or Recycling Industrial solvents for large quantity generators in industries such as Pharmaceuticals, Electronics, Polymer, Chemicals, Petro Chemicals and more…….
- The site operates 24X7
- Extensive Corporate Support
- Total size of the site, ~7 ½ Acres

Environmental Services

Solvent Recycling Services

Fact Sheet

Recycling
We provide recycling services, where the product is recycled to our high quality specifications and sold on the secondary market.

Tolling
Our tolling programs provide a closed loop cycle in which the customer's spent solvents are recycled to their precise specifications and returned directly to them.

Customized Solutions
Customized solutions that utilize traditional recycling with tolling to meet customers' unique requirements are also available.

Typical Solvents Recycled
Chlorinated solvents, aromatic and aliphatic hydrocarbon solvents, alcohols, ester solvents, ketones, n-Methyl-2-Pyrrolidine (NMP), and Tetrahydrofuran (THF) are typical solvents we recycle.

Recycled Materials for Sale
High quality recycled materials are sold through Service Chemical, LLC, a full service distributor of specialty and commodity chemicals.

Waste Minimization
Companies committed to waste minimization, good product stewardship, and the "Responsible Care Program" can benefit by having their waste recycled.

Facility Capabilities

Clean Harbors' Chicago, Illinois recycling facility is equipped with six distillation columns, one liquid-to-liquid extractor, and one mole sieve dryer. There are 90 storage tanks available, ranging from 500 to 17,500 gallons, creating a total capacity of 940,000 gallons.

Clean Harbors' Hebron, Ohio recycling facility is equipped with a distillation column, four Safety-Therm dryers, two thin-film evaporators (LUWAs), and three resin bed dryers. There is bulk storage capacity for 482,000 gallons and 136,080 gallons for containers.

Clean Harbors Solvent Recycling Services

Clean Harbors Solvent Recycling Services offer a full range of solvent recycling options from traditional recycling to tolling, or a combination of the two. Recovered products, which are not returned to customers, are available for sale.

- Our flexible operations, combined with chemical knowledge and engineering expertise, bring advanced solutions to the challenges of separation and purification.
- During the recovery process, components of the solvent/chemical streams are isolated and purified to high-quality product specifications.
- Clean Harbors Recycling Services employees are experts in recycling and tolling. All processing meets strict local, state, federal regulations, and customer requirements.

Our customers have peace of mind knowing they've made the best economic and environmental decision in recycling their waste.

Focus on Safety

Clean Harbors' number one priority is the health, safety and compliance of our operations on your sites and ours. Employees at all levels of the company share this philosophy and are committed to ensuring our safety goals are met.

CleanHarbors

What Makes CRC Unique

- Servicing High End of the Market in our Business
- Highly Dedicated Workforce
- Long Term Employment Creates Stability
- Average Experience
  - Operators 15+ Yrs
  - Supervisors 20+ Yrs
  - Managers 20+ Yrs
- Well Trained Employees in Tolling & Recycling

Facility Capabilities

- 4, Fractional Distillation Columns
- 1, Thin Film Evaporator
- 5, Tank farms 90 tanks prim. stainless steel
- 2, 500 HP Boilers
- 1, 100 HP Boiler
- Flare

Facility Permits

• State Part-B Permit	Expires Nov. 2015
• HSWA Part-B Permit	Expires Nov. 2015
• Title-V Permit	Going thru renewal
• Chicago DOE Waste Permit	Expires July 2012
• MWRDGC Permit	Expires March 2014

Solvent Recovery

- The term "Industrial Solvent" is generally applied to organic liquids which are used on an industrial scale to clean, dissolve, suspend or change the physical properties of materials.
- Solvents which have been used in the manufacturing or process industries may be contaminated with a variety of substances.
- The purpose of solvent recovery is to separate the solvent from the impurities to produce a reusable product.

Incoming Materials Process

- Feedstock Screening.
- Method of Delivery; bulk, drums or containers.
- Materials are transferred to the appropriate storage containers until processing.
- Materials are transferred from storage into the processing operations.

Sample of the Tanker → if water/fuel — pH only.
BTU / pH for sure.
Each deff. ~~storage~~ tank

Product Recycling Process

- Feeding Materials into Processing Equipment.
- Initial Treatment.
- Distillation.
- Purification.
- Storage and Handling of Finished Product.
- Generation of Waste.

Solvent Reclamation Waste Disposal Facts

Solvent recovery is likely to generate a number of waste streams which include:

- Used Drums – Reconditioning
- Contaminated water – sewer/or a diff. location
- Sludges and solids – remove Non Vol. Residue (NVR) goes for energy recovery. prim. low volatile Residue
- Non-Specification solvent –
- Volatile emissions – flare/Thermal (destruction & control)
- Waste derived fuels – Value due to BTU

Solvent Reclamation Waste Disposal Facts

- Waste materials separated from solvents during initial treatment and distillation are disposed of by incineration, landfilling, or deep well injection. The composition of such waste varies, depending on the original use of the solvent.

  High % for incineration + fuel recovery

- About 80 percent of the waste from solvent reclaiming by private contractors is disposed of in liquid waste incinerators. About 14 percent is deposited in sanitary landfills, usually in 55-gallon drums.

Solvent Recovery Benefits

- Recovers from 70% to 90% of a customer's waste stream.
- Reduces the use of raw material (i.e., solvent).
- Reduces cost of product and potential for illegal disposal.
- Reduces disposal costs by recovering solvent for reuse.
- Reduces the quantity of solvent-aqueous changeover water that is disposed of as waste.

CH. Central Transp. Group → Mass.
70 o/o agreements

Sawyer Michigan - Incident 7/21/11

- Waste generated by the solvent recovery process at CRC was being transported for incineration via a 3rd party transporter.
- Industry standard calls for transportation via a stainless steel tanker.
- Transportation requirements had been previously communicated to all transporters. Via contract.
- Transporter selected an aluminum tanker for transportation of the subject waste, the type of tanker provided to CRC was not known to prior to the incident.
- Although no expert cause and origin was performed, the following factors as to what may have caused the incident have been identified:
  - reaction between the waste and the aluminum tanker;
  - tanker's pressure release value may have malfunction;
  - the presence of a heat wave in that part of the country may have been a triggering event that resulted in an atypical chain reaction.

Sawyer Michigan – Post Incident 7/21/11

- Clean Harbors was the emergency response company for this incident.
- Clean Harbors performed the cleanup, remediation and disposal activities.
- Clean Harbors conducted an exhaustive Management Team Investigation. (MTI), the findings include but are not limited to:
  - Improvement in CRC's processes.
  - The incident was the result of an extraordinary confluence of factors not previously present in the facility's 43 year history.
- MTI recommendations have been implemented and are being monitored for compliance.
- State of Michigan DEQ – Consent Order and Payment of Fine
- U.S. Department of Transportation's Investigation and Issuance of a NOPV and Probable Penalty.

Mitigating Factors

• ✓ Safety First!

Facility Factors

• Hrs worked w/o LTA	485,000
• Days worked w/o LTA	2,321
• Hrs worked w/o a recordable	205,200
• Days worked w/o a recordable	982
• Years worked w/o NOV	>10 years
• Years worked w/o fines	>20 years
• VPP status	in Progress
• EMS status	in Progress

Mitigating Factors

- CRC is one of the leaders in this industry and has set the standard by which others operate, as evidenced by its 43 year history.
- CRC compliance and safety history, and its training programs and most important its dedicated employees.
- CRC's level of cooperation with the agencies investigating the incident.
- CRC's timely investigation and implementation of improvements to its processes.
- The rarity of this type of incident in the industry as a whole, as well as CRC never having been involved in a like or similar incident during its 43 years of operation.

ILD 005 450 697 Pink

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/524-3300

March 21, 2008

Certified Mail
7007 0220 0000 0039 3939
7007 0220 0000 0039 3946

Clean Harbors Recycling Services of Chicago, LLC
Attn: Scott Kuhn
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061

Clean Harbors Recycling Services
of Chicago, LLC
Attn: Alfred Aghapour
1445 W. 42 Street
Chicago, Illinois 60609

Re: 0316000053 -- Cook County
Clean Harbors Recycling Services of Chicago, LLC (CHRSC, LLC)
ILD005450697
RCRA Permit Log No. B-121R-M-3
RCRA Part B Permit File

RELEASABLE

MAR 28 2008

REVIEWER MD

Gentlemen:

This letter is in response to your letter dated January 31, 2008, requesting a Class 1* modification to transfer the permit to a new owner and operator and change the name of the facility from Safety-Kleen Systems, Inc (Chicago Recycle Center) (owner/operator and name of the facility) to Clean Harbors Recycling Services of Chicago, LLC. The new permitted owner/operator for the RCRA hazardous waste management Part B Permit for the facility is Clean Harbors Recycling Services of Chicago, LLC, Chicago, Illinois. The list of names, addresses, or phone numbers of coordinators, or other persons, or agencies that is identified in the plan in accordance with 35 Ill Admin Code Part(s) 703, Appendices A(A)(1) and A(B)(6)(d) has also been revised. The Agency has approved this modification request in accordance with 35 Ill. Adm. Code 703.260(b).

Approval of this modification is based upon review of (1) the RCRA permit issued to Clean Harbors Recycling Services of Chicago, LLC, (2) the regulations (35 Ill. Adm. Code Subtitle G), and (3) the information contained in your submittals. A copy of the approved permit is attached. The modifications to the permit are identified in Attachment 1 to this letter. Operations must be conducted in accordance with the approved RCRA Part B Permit issued to Clean Harbors Recycling Services of Chicago, LLC, (CHRSC, LLC) and all subsequent modifications to the Part B Permit.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with the regulations adopted pursuant to these laws. All work that falls within the

scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

The Permittee must complete the public notice requirements for the Class 1* modification requested in Log # B-121R-M-3. Pursuant to 35 Ill. Adm. Code 703.281(a)(2), a notice of the modification shall be sent to all persons on the facility mailing list, maintained by Illinois EPA in accordance with 35 Ill. Adm. Code 705.163(a)(4), and the appropriate units of the state and local government, as specified in 35 Ill. Adm. Code 705.163(a)(5). This notification must be made within ninety (90) days of the date of issuance of this letter.

In accordance with 35 Ill. Adm. Code 703.260(b) Safety-Kleen Corp (Chicago Recycle Center) must comply with the requirements of 35 Ill. Adm. Code 724 Subpart H until the new owner/operator has demonstrated compliance with that part. The new owner/operator must demonstrate compliance with that subpart within six months (180 days) after the date of transfer occurs.

If you have any additional questions in this matter, please contact Mark Schollenberger, P.E. at 217/524-3307 or Krishnamurthy S. Gadi at 217/524-3863.

Sincerely,

Stephen F Nightingale by JEN

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:KSG:bjh\96401s.doc

Attachments: Part B Permit
Attachment 1: Summary of Changes to the Permit

cc: Jim Blough, USEPA Region V
Dale Meyer, USEPA Region V
Lin Longshore, Vice President of Environmental Compliance, SKS, Inc.

bcc: Bureau File
Des Plaines Region
Hope Wright
Ted Dragovich
Steve Nightingale
Jim Moore
Terri Blake Myers
Mark Schollenberger
Krishna Gadi

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

RCRA Log 121 Part B

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE MANAGEMENT RCRA Part B PERMIT

IEPA #0316000053 -- Cook County
USEPA ILD #005450697
Clean Harbors Recycling Services of Chicago, LLC
RCRA Log No. B-121R-M-3
RCRA Part B -- Administrative Record

Issue Date: March 4, 2005
Effective Date: April 8, 2005
Expiration Date: April 8, 2015
Modification Date: March 21, 2008

OWNER
Clean Harbors Recycling Services of Chicago, LLC
Attn: Scott Kuhn
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061

OPERATOR
Clean Harbors Recycling Services
of Chicago, LLC
Attn: Alfred Aghapour
1445 W. 42 Street
Chicago, Illinois 60609

Gentlemen:

A Part B permit is hereby granted pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (Ill. Adm. Code) Parts 702, 703, 705, and 720 through 729 to Clean Harbors Recycling Services of Chicago, LLC to maintain and operate a waste management facility involved in the treatment and storage of hazardous waste. The Clean Harbors Recycling Services of Chicago, LLC is located at 1445 West 42nd Street, Chicago, Illinois 60609.

This permit consists of the conditions contained herein (including those in any attachments and appendices) and all applicable regulations contained in the Act and 35 Ill. Adm. Code Parts 702, 703, 705, and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (Ill. Rev. Stat., Chapter 111 ½, Section 1039) grants the Illinois Environmental Protection Agency (Illinois EPA) the authority to impose conditions on permits, which is issued. This permit contains 118 pages including attachments A through H.

If you have any questions regarding this permit, please contact Mark Schollenberger, P.E. at 217/524-3307 or Krishnamurthy S. Gadi at 217/524-3863 or Jim Blough of USEPA at 312/886-2967.

Stephen F. Nightingale by KSG

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:KSG:bjh\96401s.doc

cc: Jim Blough, USEPA Region V
Dale Meyers, USEPA Region V
Lin Longshore, Vice President of Environmental Compliance, SKS, Inc.

ATTACHMENT 1

1) Name of owner and operator was changed from Safety-Kleen Systems, Inc (Chicago Recycle Center) to Clean Harbors Recycle Services of Chicago, LLC (CHRSC, LLC).

2) Typographical errors were corrected in Conditions:

Condition 1.A	Corrected "Safety-Kleen" to "The Permittee".
Condition 1.J(2) & 1.J(3)	Corrected Typo for "Permittee".
Condition 1.K(1)	Corrected Typo for "Permittee".
Condition II.A	Corrected "Chicago Recycle Center" to "CHRSC, LLC"
Condition II.H.6c(vi)	Corrected Typo for "Permittee"
Condition II.I.3	Corrected Typo for "Permittee"
Condition II.I.7	Corrected Typo for "Permittee"
Condition V.A	Corrected Typo for "Permittee"
Condition V.B(1) & V.B(2)	Corrected Typo for "Permittee"
Condition V.B(2)(a)	Corrected Typo for "Permittee"
Condition V.C(1) & V.C(2)	Corrected Typo for "Permittee"
Condition V.C(2)(c) & V.C(3)	Corrected Typo for "Permittee"
Condition V.D(1) & V.D(2)	Corrected Typo for "Permittee"
Condition V.F(1) & V.F(2)	Corrected Typo for "Permittee"
Condition V.D(3) & V.D(4)	Corrected Typo for "Permittee"
Condition V.D(5)	Corrected Typo for "Permittee"
Condition V.F	Corrected to Condition V.E
Condition V.E	Corrected Typo for "Permittee"
Condition V.G	Corrected to Condition V.F
Condition V.F(1) & V.F(2)	Corrected Typo for "Permittee"
Condition VI.A(1)	Corrected Typo for "Permittee"
Condition VI.A(1)(a)(ii)	Corrected Typo for "Permittee"
Condition VI.A(1)(a)(iv)	Corrected Typo for "Permittee"
Condition VI.A(2)	Corrected Typo for "Permittee"
Condition VI.A(2)(a, b, c)	Corrected Typo for "Permittee"
Condition VI.A(3)	Corrected Typo for "Permittee"
Condition VI.B(1)	Corrected Typo for "Permittee"
Condition VI.B(1)(b, c, d)	Corrected Typo for "Permittee"
Condition VI.B(2)	Corrected Typo for "Permittee"
Condition VI.B(2)(a to e)	Corrected Typo for "Permittee"
Condition VI.B(3)	Corrected Typo for "Permittee"
Condition VI.B(4)(a & b)	Corrected Typo for "Permittee"
Condition VI.C(1)	Corrected Typo for "Permittee"
Condition VI.C(2)(a & b)	Corrected Typo for "Permittee"
Condition VII.(9, 13(b) & 14)	Corrected Typo for "Permittee"
Condition VII.14(a & 14(b)(2))	Corrected Typo for "Permittee"

Condition VII.15	Corrected Typo for "Permittee"
Condition VII.15(i & ii(b))	Corrected Typo for "Permittee"
Condition VII.16	Corrected Typo for "Permittee"
Condition VII.22(a & b)	Corrected Typo for "Permittee"
Condition VII.(28 & 29)	Corrected Typo for "Permittee"
Condition VIII.A(1 & 4(b))	Corrected Typo for "Permittee"
Condition VIII.A(5)(B)	Corrected Typo for "Permittee"
Condition VIII.A(5)(B)(ii.b)	Corrected Typo for "Permittee"
Condition VIII.A(6)(d)	Corrected Typo for "Permittee"
Condition VIII.C(1) & D(1)	Corrected Typo for "Permittee"
Condition VIII.E(2)	Corrected Typo for "Permittee"
Condition VIII.F(2)(d)	Corrected Typo for "Permittee"
Condition VIII.H(1)	Corrected Typo for "Permittee"

SFN:KSG:bjh\082871s.doc

RCRA Hazardous Waste Management Permit

CHRSC, LLC

ILD005450697

SFN:MAS:bjh\96401s.doc

Table of Contents

Item	Page
General Facility Description	i
I. Containers	I-1 - I-9
II. Tank Systems	II-1 - II-13
III. Reporting and Notification Requirements	III-1 - III-6
IV. Corrective Action	IV-1 - IV-8
V. Subpart BB	V-1 – V-6
VI. Subpart CC	VI-1 – VI-6
VII. Standard Conditions	VII-1 - VII-12
VIII. Special Conditions	VIII-1 – VIII-9

SFN:MAS:bjh\96401s.doc

List of Attachments

ILD005450697

Attachment A -- List of Wastes that can be accepted at this Facility

Attachment B -- Inspection Schedule

Attachment C -- Construction Certification Form

Attachment D -- Closure Certification Forms

Attachment E -- Site Layout Map

Attachment F -- Financial Assurance Requirements

Attachment G -- Approved Permit Section Identification

Attachment H -- Chemical Compound Groups

SFN:MAS:bjh\96401s.doc

Description of the Facility

The Chicago Recycle Center, owned and operated by CHRSC, LLC, is an organic chemicals reclamation and recycling facility that conducts regeneration of the spent solvent and blending/processing of the material for use as a hazardous waste fuel. Wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils and paint wastes. The facility is located within the city limits of Chicago, Cook County, Illinois, between 42nd Street and 43rd Street on approximately eight acres of land approximately 1000 feet east of Ashland Avenue.

Several hazardous waste management units exist at the facility. These units include:

1. An outdoor container storage area (container storage area #1) for wastes received in containers (e.g., any type of container meeting DOT transportation requirements) is used to store waste prior to being processed or shipped off-site. Container storage areas #2 and #3 are not permitted for hazardous waste storage and are used for the storage of product.

2. Nine tanks farms. Tank Farm #1 is an existing area which housed fifteen tanks (Tanks T100-T114). Tanks T100 and T101 are dedicated exclusively to the storage of product material and are not subject to RCRA requirements. Tanks T105-T114 have been removed from service and undergone closure leaving three tanks subject to RCRA. Tank Farm #2 is an existing area containing eleven tanks (Tanks T170-T180) subject to RCRA requirements. Tank Farm #3 is an existing area which housed six tanks (Tanks T190-T195). Tanks T190-T193 have been removed from service and are part of the corrective action activities at the facility. Leaving tanks T194 and 195 subject to RCRA permits. Tank Farm #4 is an existing area containing nineteen tanks (Tanks T1-T6 and T11-T23) subject to RCRA. Tank Farm #5 is an existing area containing thirty-one tanks (Tanks T30-T60). Tanks T54-T60 are dedicated to storage of product material and are not subject to RCRA requirements. Tank Farm #6 is a proposed tank farm containing ten tanks (T61-T70) subject to RCRA requirements. Tank Farm #7 is a proposed unit consisting of ten tanks (T85-T94) subject to RCRA requirements. Tank Farm #8 is a proposed unit consisting of four tanks (T182-T185) subject to RCRA requirements. Tank Farm #9 is a proposed unit consisting of six tanks (T115-T120) subject to RCRA requirements. Tank 199, which was operating under interim status but never permitted in a Part B permit was certified closed in 1991. A Container Storage Area which operated under interim status but never permitted in a Part B permit was certified closed in 1989.

Section I: Container Storage

A. Hazardous Waste Management Units

The container storage area is 148.5 ft. x 57.5 ft. Containers of hazardous waste received at the facility for storage will arrive in either 5 gallon steel pails, 16 gallon drums (steel or polyethylene plastic), 30 gallon drums (steel or polyethylene plastic), 55 gallon steel drums, or 85 gallon overpacks. Containers in the storage area must be stored in a manner which is consistent with the NFPA Outdoor Storage requirements. The Permittee may accept containers which are of different sizes than those listed above in accordance with the following conditions:

1. The container is DOT approved;
2. The container is compatible with the waste;
3. The container is in good condition (not rusting or leaking);
4. The facility has the available equipment and experience to properly manage the containers.

B. Waste Identification

1. All hazardous waste stored in containers shall be located in the storage area (container storage area #1) depicted in Exhibits 3 and 4.
2. The maximum volume of waste to be stored in this area is limited to 108,900 gallons before the design of the roof is approved and installed. Upon certification by an Illinois Registered P.E. that the roof is installed in accordance with the Illinois EPA approved design, the maximum volume of waste which may be stored is 146,520 gallons.
3. The Permittee may store the hazardous waste identified in Attachment A in containers and any non-hazardous waste which is determined to be compatible with the currently stored waste in accordance with Condition VIII.A.4(a). All non-hazardous waste must be evaluated through the waste analysis plan for compatibility. No waste which is incompatible with any of the other permitted wastes may be accepted. The Permittee shall not accept municipal waste, potentially infectious medical waste, construction or demolition debris, asbestos waste or TSCA regulated waste.

4. The Permittee is prohibited from storing a hazardous waste that has not been identified in Attachment A.

5. The Permittee is prohibited from adding additional container storage areas without the appropriate permit modification in accordance with 35 IAC 703, Appendix A.

C. Condition of Containers

1. If a container holding waste is not in good condition (e.g., severe rusting, apparent structural defect, etc.) or if it begins to leak (this includes waste which appears on the outside of the drum/box but has not spread to the containment base or other containers), the Permittee must immediately transfer the waste from this container to a container that is in good condition or place the container in an overpack drum.

2. Any transfer of waste which was required to comply with I(C)(1), must be recorded in a separate log and maintained as part of the facilities operating record.

3. Packaging of all wastes accepted for storage in the container storage area shall meet the requirements of 49 CFR 172, 178 and 179 and all applicable D.O.T. and N.F.P.A. regulations. All containers must be marked and placarded in accordance with 49 CFR 172.

4. The Permittee shall clearly identify the contents of each container on the side of the container in accordance with 49 CFR 172 prior to placing the container in the storage area.

D. Compatibility of Waste With Containers

The Permittee must use a container made of or lined with material which will not react with and is otherwise compatible with the waste to be stored so that the ability of the container to contain the waste is not impaired. (35 IAC 724.272).

E. Management of Containers

The Permittee shall comply with the following management practices:

1. A container holding waste must always be closed during storage, except when it is necessary to add or remove or sample waste.

2. A container holding waste must not be opened, handled or stored in a manner that may rupture the container or cause it to leak.

3. The following management practices apply to arrangements of containers that contain one or more containers of D001 waste.

   a. Each arrangement of containers (pile) shall be separated from other arrangements by a five foot aisle except as allowed by 3c. The maximum volume of containers in each arrangement shall not exceed the following:

      i. 1,100 gallons for arrangements with one or more containers of waste which have a flash point below 73°F and a boiling point below 100°F.

      ii. 2,200 gallons for arrangements with one or more containers of waste having a flash point below 73°F and a boiling point at or above 100°F.

      iii. 4,400 gallons for arrangements with one or more containers of waste having a flash point at or above 73°F and below 100°F.

      iv. 8,800 gallons for arrangements with one or more containers of waste having a flash point at or above 100°F and below 140°F.

      v. 22,000 gallons for arrangements which do not contain D001 wastes.

   b. All containers containing wastes which meet the definition of combustible or flammable liquid shall be stored in the same arrangements.

   c. An aisle that is a minimum of two feet wide must be maintained within the arrangement between each row of pallets and between pallets and a wall in a pile. This is necessary to provide adequate access for the inspection of each container.

4. Containers may be stacked provided that:

   a. Only the same size or smaller containers are stacked on top of the containers beneath and

   b. Containers are separated by a pallet or other dunnage to provide stability or

   c. Stacked in a staggered fashion as shown in Exhibit 20b.

5. If containers are stacked, the distance of the containers from the edge of secondary containment structure shall equal or exceed the height of the stack. At a minimum, six feet must be provided from the stacked containers to the edge of the secondary containment along the west side of the container storage pad.

6. The containers shall be clearly marked with the date received prior to being placed into storage.

F. Inspection

The Permittee shall inspect the container storage area weekly in accordance with the inspection schedule specified in Attachment B to this Permit. The inspection must be adequate to detect leaks and deterioration of containers and the containment system caused by wear, corrosion or other factors. The procedures described in the approved permit application must be used with the following modifications:

1. Action shall be taken to immediately overpack a leaking or deteriorating drum. Appropriate action to clean up any release of waste from a leaking or deteriorated drum shall be carried out immediately after the drum has been overpacked.

2. If a portion of the containment system is found to be in a deteriorated condition (cracks, gaps, spalling, failure of the coating, etc.) the Permittee shall immediately remove all waste containers from the deteriorated area until the containment system has been repaired.

3. The container loading/unloading area shall be inspected daily for spills and releases. Once observed, such releases shall receive immediate attention in accordance with the procedures outlined in the approved application. Results of this inspection and a description of the corrective action taken, if necessary, shall be documented in the inspection log.

4. The weekly inspection shall include checking aisle spacing, height of stacks and remaining capacity.

5. Results of all inspections and the activities undertaken to correct deficiencies shall be documented in the operating record for the facility.

6. Each container stacked in an arrangement which is greater than 6.5 feet high shall be inspected daily for stability of the pile.

G. Containment

The Permittee shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating. The annual inspection shall be by qualified personnel.

H. Special Requirements for Ignitable or Reactive Waste

1. The Permittee shall not accept reactive waste at the facility.

2. The Permittee shall not locate containers which hold ignitable waste within 50 feet of the facility's property line. Therefore, ignitable containers may only be stored in Row #3 through #24 of the 148.5 ft. x 57.5 ft. outdoor container storage area.

3. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable waste.

   Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

   a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.

   b. While ignitable waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.

   c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

I. Special Requirements for Incompatible Waste

1. The Permittee shall not store containers holding a material that is incompatible with any waste or other materials stored nearby, unless separated from other waste/materials or protected from them by means of a dike, berm or other devices. Incompatible materials are defined in Section VIII to this permit.

J. General Operating Requirements

The Permittee shall operate the container storage area in accordance with the approved permit application, subject to the following modifications:

1. The Permittee may receive hazardous waste for storage in containers provided the following requirements are met.

   a. The material must be a waste which has been identified in Attachment A to this permit.

b. The waste must be analyzed in accordance with the approved waste analysis plan.

c. The waste must be accompanied by a properly completed Illinois manifest as required by 35 Ill. Adm. Code 723 and/or 809.

2. Cleanup of all spills inside the secondary containment areas must begin immediately upon discovery and be completed within 24 hours. Secondary containment must be inspected immediately after cleanup for cracks, gaps or other defects (failure of the coating) which would allow waste to migrate to the underlying soil. If any deterioration is discovered, the Permittee shall immediately remove all waste from the deteriorated area.

3. The Permittee shall remove any precipitation which accumulates in the secondary containment system within 24 hours of the time such accumulation is discovered.

4. Incoming wastes must be transferred from the transportation vehicle to a permitted storage unit within the first 24 hours after arrival of the waste.

K. Closure Requirements

At closure, all waste and waste residues must be removed from the containment system. Remaining containers, liners, bases and soil containing or contaminated with waste or waste residue must be decontaminated or removed. Closure of the container storage area shall be carried out in accordance with the closure plan in the Approved Permit Application, as modified below:

1. The Permittee shall notify the Illinois EPA's Division of Land Pollution Control in writing of its intent to close the container storage area at least 180 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit the sampling and analysis plan to be used in demonstrating the storage area has been properly decontaminated. This plan shall be approved by the Illinois EPA's Division of land Pollution Control in writing prior to being implemented. Illinois EPA review of this plan will be subject to te permit appeal provisions contained in Sections 39(a) and 40(a) of the Environmental Protection Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for; and

   c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed, all residue adhering to the surface must be removed by scraping and/or brushing, followed by steam cleaning and triple rinsing the concrete surfaces. All wash and rinse waste shall be collected and managed as a hazardous waste. The pad must either be certified by an independent, registered, professional engineer that the surface has no cracks, gaps, or other defects which would allow waste to migrate through to the underlying soil or sampling shall be conducted to verify the underlying soil is uncontaminated.

   Sweepings and all washwater and rinsate generated during the closure of these units shall be managed as a hazardous waste, unless the Permittee can document that the waste is not hazardous as defined in 35 IAC 721.103.

3. The Permittee shall provide post-closure care in accordance with 35 IAC, Subtitle G, Part 724, for the container storage area if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care for the container storage area is required, this Permit will be modified to require post-closure care of the container storage area in accordance with 35 IAC, Subtitle G, Part 724, Subparts G and H.

4. Should post-closure care, as described in Condition K.3 above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit, within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan for the container storage area, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure of the container storage area, if required in accordance with Condition K.3 and K.4 above, shall be provided within thirty (30) days following modification of the permit under the provisions of Condition K.4 above.

6. Within sixty (60) days after closure of the container storage area is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

   The closure certification form in Attachment D to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code, Section 702.126. The independent engineer should be present at all critical,

major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the container storage area until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certifications for partial or final closure will be conducted in accordance with 35 IAC 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes the following activities:

a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;

b. A description of the method of waste handling and transport;

c. Copies of the waste manifests;

d. A description of the sampling and analytical methods used;

e. A chronological summary of closure activities and the cost involved;

f. Tests performed, methods and results; and

g. Color photographs of closure activities which document conditions before, during and after closure.

7. During closure, the Permittee shall obtain any necessary permits for waste disposal prior to initiating excavating activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, storage is limited to containers or tanks for less than ninety (90) days. The Permittee is prohibited from storing the excavated hazardous waste in piles because the ninety (90) days accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

8. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. The Permittee shall insure that general site workers engaged in activities that expose or potentially expose them to hazardous substances receive a minimum of 40 hours of safety and health training off site plus a minimum of

three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

9. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 IAC 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

10. The Permittee shall analyze all samples individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

SFN:MAS:bjh\96401s.doc

Section II: Tank Systems

A. Summary

The storage tanks at the CHRSC, LLC are used for a variety of purposes, including product storage, in-process materials storage, hazardous waste storage and wastewater storage. Of these uses, the storage of hazardous wastes and wastewaters are the only uses that are regulated under RCRA. Associated with the RCRA activity are 59 existing above ground tanks. The Permittee has also proposed to develop 30 above ground tanks for storage in the future. All above ground tank areas have secondary containment consisting of a concrete vault and an impermeable membrane or coating which has been applied to the concrete.

B. Waste Identification

1. The Permittee may store a total volume of 1,161,050 gallons of waste in the tanks listed below subject to the terms of this permit.

Tank Number	Tank Farm	(N)new or (E)existing	Capacity in gallons	Minimum Shell Thickness of Tank (inches)	material of construction
T1--T4	4	E	12,500	0.06	stainless steel
T5--T6	4	E	8,000	0.06	stainless steel
T11--T19	4	E	3,500	0.06	stainless steel
T20	4	E	1,000	0.009	stainless steel
T21	4	E	500	0.004	stainless steel
T22--T23	4	E	3,500	0.06	stainless steel
T30A,T30B	5	E	7,500	0.125	stainless steel
T31--T33	5	E	15,000	0.125	stainless steel
T34A,T34B	5	E	7,500	0.125	stainless steel
T35A,T35B	5	E	7,500	0.125	stainless steel
T36	5	E	15,000	0.125	stainless steel
T37A,T37B	5	E	7,500	0.125	stainless steel
T38	5	E	15,000	0.125	stainless steel
T39	5	E	15,000	0.125	carbon steel
T40A,T40B	5	E	7,500	0.125	caron steel
T41A,T41B	5	E	7,500	0.125	carbon steel
T42--T45	5	E	15,000	0.125	stainless steel

Tank Number	Tank Farm	(N)new or (E)existing	Capacity in gallons	Minimum Shell Thickness of Tank (inches)	material of construction
T46A, T46B	5	E	7,500	0.125	carbon steel
T47A,T47B	5	E	7,500	0.125	carbon steel
T48A,T48B	5	E	7,500	0.125	stainless steel
T49A,T49B	5	E	7,500	0.125	stainless steel
T50	5	E	15,000	0.125	stainless steel
T51	5	E	15,000	0.125	carbon steel
T52A,T52B	5	E	7,500	0.125	carbon steel
T53A,T53B	5	E	7,500	0.125	carbon steel
T61--T70	6	N	18,500	0.06	stainless steel
T85--T94	7	N	18,500	0.06	stainless steel
T102	1	E	12,500	0.06	stainless steel
T103	1	E	12,500	0.125	stainless steel
T104	1	E	8,000	0.06	stainless steel
T115--T120	9	N	15,000	0.033	stainless steel
T170	2	E	3,500	0.06	stainless steel
T171	2	E	3,095	0.06	stainless steel
T172--T173	2	E	5,335	0.06	stainless steel
T174	2	E	4,500	0.06	stainless steel
T175	2	E	3,095	0.06	stainless steel
T176--T177	2	E	5,335	0.06	stainless steel
T178--T180	2	E	6,500	0.06	stainless steel
T182--T185	8	N	18,500	0.06	stainless steel
T194	3	E	11,835	0.125	carbon steel
T195	3	E	17,749	0.051	carbon steel

2. The Permittee may store the liquid wastes identified in Attachment A to this permit in the tanks specified above and any non-hazardous waste which is determined to be compatible with the currently stored waste in accordance with Condition VIII.A.4(b). All non-hazardous waste must be evaluated through the waste analysis plan for compatibility. The Permittee is not authorized to receive municipal waste, potentially infectious medical waste, construction, or demolition debris, asbestos waste or TSCA regulated waste.

3. Storage of waste in tanks other than those specifically identified in II(B)(1) is prohibited.

4. The Permittee is prohibited from constructing or operating additional tanks without the appropriate permit modification in accordance with 35 IAC 703, Appendix A.

C. Containment and Detection of Releases

1. The Permittee shall construct, operate, and maintain the tank system according to the detailed plans and reports contained in the approved permit application, subject to the following modifications:

   a. The Permittee shall provide the concrete slab, the curbs and the walls that are used as part of the containment, with an impermeable surface coating that:

      1) is compatible with the waste, or any other liquid, stored in the containment system and

      2) will prevent migration of the waste into the concrete of the slab or wall.

   b. The Permittee shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating.

   c. The Permittee shall install a compatible caulking or sealant at each existing joint to make the joint liquid tight. These joints include but are not limited to, all construction joints within the slab, walls and curbs and joints between the slab and curb, between two curbs, between the slab or curb and wall and joints between two walls. The caulking or sealant shall be compatible with the stored waste, or any other liquid, stored in the same containment system with the hazardous waste.

2. The Permittee shall inspect all secondary containment sumps daily and remove all liquids contained in the sumps within 24 hours.

D. General Construction Requirements

1. The Permittee is authorized to construct Tank Farms #6, #7, #8 and #9 (including all tanks, ancillary equipment and secondary containment). These tank farms may only be constructed in accordance with the approved permit application, subject to the following modifications:

a. Within thirty days after completing construction and prior to any waste being placed or stored in a tank or its corresponding ancillary equipment, the Permittee shall submit to the Illinois EPA a certification from an independent qualified, registered professional engineer. The certification must demonstrate that the tank system meets the requirements of 35 IAC 724.292 and 724.293. The certification shall contain the information described in Attachment C and the additional information listed below:

1. A report documenting the new tank system was inspected for the presence of the following items:

   i. weld breaks;
   ii. punctures;
   iii. scrapes of protective coatings;
   iv. cracks;
   v. corrosion;
   vi. other structural damage or inadequate construction/installation.

   All defects noted during this inspection must be remedied prior to covering, enclosing or placing the tank system in use;

2. A copy of the leak test performed on all of the new tanks and ancillary equipment, including a description of any repairs performed on the system to remedy the leak(s);

3. Certification that the tanks and ancillary equipment were designed and installed in a manner that is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction; and

4. A statement that the base slab is free of cracks or gaps.

b. The Illinois EPA shall review the certification described above to ensure the tank systems and their secondary containment meets the requirements of 35 IAC 724.292 and 724.293. The Illinois EPA will respond with any comments to this certification in writing within fifteen days from the receipt of the certification. The Illinois EPA review of this certification will be subject to the permit appeal provisions contained in Section 39(a) and 40(a) of the Illinois Environmental Protection Act.

E. General Operating Requirements

1. The Permittee shall not place hazardous wastes in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

2. The Permittee shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems using the methods specified in the Approved Permit Application, subject to the following modifications:

   a. All hazardous waste storage tanks shall be equipped with automatic waste feed shut-off valves connected to the continuously monitored liquid-level sensors which are activated when the tank is 95% full or;

   b. All hazardous waste storage tanks shall be equipped with audible alarms which are activated when the tank is 95% full;

   c. In situations when the high level alarm or automatic shut off system is not operational, the facility may use the manual oversight procedures outlined below, for no more than 90 days from the date the alarm or shut off system is identified as nonfunctional. If the alarm is not functioning after 90 days, the tank shall be removed from service until the alarm is repaired or is replaced. Instances of nonfunctional alarms or shut off systems and their return to service shall be noted in the operating record maintained by the facility.

      The Permittee shall insure that an observer is standing by the level indicator during the filling of tank. The observer shall monitor the tank level indicator in accordance with the procedures identified below, notify the pump operator, by voice or radio, when the tank has reached 95% capacity and direct the operator to cease pumping.

      a) The Permittee shall take inventory of the tanks prior to pumping any waste materials into the hazardous waste storage tanks to insure that adequate capacity is available to accommodate the volume of the compartment to be emptied from the tank truck. In the event the calculated volume of waste to be pumped into the storage tank will fill to beyond 90% of the tank's total capacity, the tank shall be monitored continuously during the filling process.

      b) Upon starting the pump, the operator shall observe the level indicator to make sure it functions (rises) properly.

c) Upon pumping an entire compartment into the tank, repeat the inventory procedure identified in II(E)(2)(c)(i)(1) to verify available capacity prior to pumping more waste.

d) Upon completion of loading the Permittee shall take final inventory of the tank.

3. All hazardous and non-hazardous special wastes received at the facility must be accompanied by a properly completed Illinois manifest.

4. An employee of the facility shall be present at all times when waste is being transferred from a tank truck to the receiving tank.

5. Precipitation accumulating within the tank farm shall be removed within 24 h the precipitation event has ended.

6. Incoming wastes must be transferred from the transportation vehicle to a permitted storage unit within 24 hours upon receipt of the waste.

7. The Permittee shall analyze each waste stream in accordance with the waste analysis procedures set forth in this permit and the approved permit application.

F. Tank System Certification

1. The Permittee shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system as required by 35 IAC 724.292(g).

2. The Permittee shall obtain and keep on file at the facility a written assessment of the new tank system's integrity (35 IAC 724.292(a)) as amended 7/16/87. The assessment shall be certified by an independent, qualified registered professional engineer in Illinois.

G. Response to Leaks or Spills

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit (i.e., failure of the coating) for continued use, the Permittee shall remove the system from service immediately and complete the following actions: (35 IAC 724.296(a)-(f))

1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.

2. Remove all waste as necessary from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Illinois EPA and demonstrate that the longer time period is required.

   If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 35 IAC Parts 722-724.

3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak of spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.

4. Close the system in accordance with the Closure Plan, contained in the approved Permit Application, unless the following actions are taken:

   a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to the service.

   b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.

H. Inspections

1. The Permittee must inspect the facility in accordance with the inspection schedule in Attachment B to this Permit.

2. If a leak or spill is observed during the daily inspections, the Permittee shall immediately remove the tank system in question from service and follow the procedures set forth in 35 IAC 724.296. This includes, preventing flow or additional wastes to the tank system, removing the waste from the tank system and/or secondary containment system, containing all visible releases to the environment and notifying the Illinois EPA in accordance with Condition II(I) of this permit.

3. Precipitation accumulating in the sumps of the secondary containment system at the loading dock shall be removed within 24 hours after the precipitation event has ended.

4. Releases of hazardous waste from spills and leaks which are observed in the secondary containment system shall also be removed within the same operating shift and managed as a hazardous waste.

5. The bulk liquid unloading area shall be inspected in the following manner:

   a. The area shall be inspected for the presence of spills and releases after each truck has been unloaded. If observed, such releases shall be cleaned up immediately.

   Documentation of these inspections and any corrective actions taken shall be included in the operating record for the facility.

6. The Permittee shall inspect each tank system to assess its condition. This inspection shall consist of a visual inspection, a pressure test and an ultrasonic thickness test in accordance with the following procedures:

   a. An ultrasonic thickness test shall be conducted annually on the tank.

   b. A hydrostatic leak test or other integrity assessment as approved by the Illinois EPA shall be conducted annually on the tank ancillary equipment that are not inspected daily.

   c. A detailed visual inspection of the tank's interior shall be conducted every fifth year to ensure the tank's integrity. During this internal inspection, the internal surface shall be inspected for rust, cracks and thin areas. Corrective action as specified by a qualified registered professional engineer or corrosion technician shall be taken if the internal inspection indicates that the interior surface of a tank system has been detrimentally affected by the hazardous waste which has been stored in it. Tanks shall be entered in accordance with 29 CFR 1910.94(d)(11). The first internal inspection shall be conducted in accordance with the following schedule:

      i. Tanks in Tank Farm #1, #2 and #3 by the end of 2008.

      ii. Tanks in Tank Farm #4 by the end of 2004.

      iii. Tanks #T-30 through 41 in Tanks Farm #5 by the end of 2005.

iv. Tanks #T-42 through 53 in Tank Farm #5 by the end of 2006 and

v. new tanks shall be inspected in accordance with 724.292(b) prior to placing the tank into service and the first internal inspection shall occur five years after becoming operational.

vi. After the next scheduled internal inspection of Tanks 4, 21 and 170, the Permittee shall:

a. Conduct annual internal inspections; or
b. Provide documentation that an annual internal inspection is not necessary including a certification from an Illinois registered P.E.

d. The inspection of each tank shall be certified by a qualified, registered professional engineer, or corrosion technician.

e. Results of the inspection shall be submitted to the Division of Land Pollution Control of the Illinois EPA within 60 days of the inspection date, and shall also be included in the operating record of this facility.

f. If the results of these inspections indicate a tank system is leaking, or experiencing excessive erosion or deterioration the procedures set forth in 35 IAC 724.296 (as amended July 16, 1987) shall be followed.

g. All waste and washwater generated during evacuation of the tanks shall be managed as a hazardous waste unless the Permittee can demonstrate that the waste is not hazardous as defined in 35IAC 721.103.

I. Reporting and Recordkeeping

1. The Permittee shall report to the Illinois EPA's Division of Land Pollution Control Field Office within twenty-four (24) hours when a leak or spill occurs in the tank system or secondary containment system unless the spill or leak of hazardous waste is less than or equal to one pound in quantity and it is immediately contained and cleaned up.

2. Within thirty (30) days of detecting a release as described above to the environment from the tank system or secondary containment system, the Permittee shall report the following information in writing to the Division of Land Pollution Control of the Illinois EPA:

a. Likely route of migration of the release

b. Characteristics of surrounding soil (including soil composition, geology, hydrogeology, and climate)

c. Results of any monitoring or sampling conducted in connection with the release

d. Proximity to downgradient drinking water, surface water, and populated areas

e. Description of response actions taken or planned

3. The Permittee shall submit to the Illinois EPA all certifications of major repairs to correct leaks within seven days from returning the tank system to use. (35 IAC 724.296(f))

J. Special Requirements for Ignitable or Reactive Wastes

1. The Permittee shall not place ignitable waste in the tank system, unless the procedures specified in the Approved Permit Application are followed.

2. The Permittee shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1987).

3. The Permittee shall not place reactive waste/material in the tank systems at this facility.

K. Special Requirements For Incompatible Wastes

1. The Permittee shall not place incompatible wastes together in the same tank system. The facility shall not store waste in a tank which previously held an incompatible waste, unless the tank system has been decontaminated. Incompatible wastes are identified using the waste analysis procedures in Section VIII Condition A(4).

L. Closure

At closure, all waste and waste residues must be removed from tanks, discharge control equipment and discharge confined structures. The remaining tanks, containment systems, bases and soil containing or contaminated with waste or waste residue must be

decontaminated or removed. Closure of the tank storage area shall be carried out in accordance with the closure plan in the approved permit application, as modified below:

1. The Permittee shall notify the Illinois EPA's Division of Land Pollution Control in writing of its intent to close the tank system at least 180 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit the sampling and analysis plan to be used in demonstrating a tank system has been properly decontaminated. The plan shall be approved by the Illinois EPA's Division of Land Pollution Control in writing prior to being implemented. Illinois EPA review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and 40(a) of the Illinois Environmental Protection Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for;

   c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. For tank systems which include secondary containment systems which met the requirements of 35 IAC 724.293 at the time of installation, the secondary containment must be certified by an independent, registered, professional engineer indicating that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. If such a certification cannot be made, soil sampling and analysis must be conducted to establish clean closure.

   Sweepings and all washwater and rinsate generated during the closure of these units shall be managed as a hazardous waste, unless the Permittee can document that the waste is not hazardous waste defined in 35 IAC 721.103.

3. The Permittee shall provide post-closure care in accordance with 35 IAC Part 724 for a tank system if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in this permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, the tank system shall be considered to be a landfill and the post-closure care plan in the approved application will be modified as required to provide adequate post-closure care for the affected tank system(s) in accordance with 35 IAC, Subtitle G, Part 724, Subparts G and H.

4. Should post-closure care, as described in Condition 3 above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure plan and post-closure care plan for the affected tank system within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the closure plan for the tank system, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure of any tank system being closed as a landfill, when required in accordance with Conditions 3 and 4 above, shall be updated within thirty (30) days following modification of the permit under the provisions of Condition 4 above.

6. Within sixty (60) days after closure of any tank system is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

   The closure certification form in Attachment F to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. This might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for each tank system identified in Condition B.1 above. Documents regarding financial assurance for closure of this facility may be modified after the Illinois EPA approves the closure certification for any or all of the tank systems. The Illinois EPA's review of closure certifications for partial or final closure will be reviewed in accordance with 35 IAC 724.243.

   A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue removed, including wastes generated during decontamination procedures.

   b. A description of the method of waste handling and transport.

   c. Copies of the waste manifests.

   d. A description of the sampling and analytical methods used.

e. A chronological summary of closure activities and the cost involved.

f. Tests performed, methods and results.

g. Color photographs of closure activities which document conditions before, during and after closure.

7. During closure, the Permittee shall obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, storage shall be limited to containers or tanks for less than ninety (90) days. The Permittee is prohibited from storing the excavated hazardous waste in piles because the ninety (90) day accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

8. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. The Permittee shall insure that general site workers engaged in activities that expose or potentially expose them to hazardous substances receive a minimum of 40 hours of safety and health training off-site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor; and managers and supervisors at the cleanup site have at least an additional eight hours of specialized training on managing hazardous waste operations.

9. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

10. The Permittee shall analyze all samples individually (i.e., no composting). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

Section III: Reporting and Notification Requirements

The reporting and notification requirements of each section of the RCRA permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this permit.

Condition	Submittal	Due Date
SECTION I: CONTAINERS		
K(1)	Notify Illinois EPA of intent to close the container storage area	180 days prior to commencement of closure
K(1)	Submit sampling and analysis plan for review	180 days prior to commence of closure
K(4)	Submit application for modification of permit and post-closure care plan	No later than 30 after determination that the container storage area cannot be clean closed
K(5)	Update financial assurance to include modification in Conditions I(K)(4) or I(K)(5)	30 days after permit is modified
K(6)	Submit certification for closure of the container storage area	Within 60 days after closure is completed
SECTION II: TANK SYSTEMS		
D(1)(a)	Submit certification and report for Tank Farms #6, #7, #8 and #9 as required by 35 IAC 724.292 and 724.293	30 days after completing the construction of the tank systems
H(6)(f)	Results of tank integrity assessment	60 days after inspection

I(1)	Notify Illinois EPA of a leak or spill unless the spill or leak of hazardous waste is less than or equal to one pound and it is immediately contained and cleaned up.	24 hours after leak or spill occurs
I(2)	Report to Illinois EPA on release and Permittee's response	30 days after leak or spill occurs
I(3)	Certification of major repairs	Within seven days from returning tank system to service
L(1)	Notify Illinois EPA of intent to close tank system(s)	180 days prior to commencement of closure
L(1)	Submit sampling and analysis plan	180 days prior to commencement of closure
L(4)	Submit application for permit modification and post-closure care plan	30 days after determination that a tank system must be closed as a landfill
L(5)	Financial Assurance for closure or post-closure	30 days after effective date of permit or modification of permit
L(6)	Submit certification of closure of tank system(s)	60 days after closure of tank system(s) is complete

SECTION IV: CORRECTIVE ACTION

E(1)	Notify Illinois EPA of any newly-identified SWMU(s)	no later than 30 days after discovery
E(3)	Submit a SWMU Assessment Plan	within 60 calendar days after receipt of the Agency's request
F	Notify Illinois EPA of any release	within 30 days of discovering a release from a SWMU

SECTION V: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

G	Before using the Alternative Percentage Standards for Values or the Skip Period Alternative for Values	Notify in writing before implementing
G	Submit a semi-annual report as required by 35 IAC 724.965	by the last day of March and September of each year

SECTION VI: AIR EMISSION STANDARDS FOR CONTAINERS AND TANKS

C(1)	Notify in noncompliance with the conditions in 35 IAC 724.984(b)	A written request within 15 calendar days of the time that the Permittee becomes aware of the occurrence by the last day of March and September of each year
C(2)(a)	Submit a semiannual written report for control devices used in accordance with 35 IAC 724.987	by the last day of March and September of each year

SECTION VII: STANDARD CONDITIONS

6	Complete application for new permit	180 days prior to expiration
11	Information requested by Illinois EPA and copies of records required to be kept by this permit	Submittal date to be determined by Illinois EPA
14	Notify Illinois EPA of planned physical alterations or additions	15 days prior to planned change
15	Notify Illinois EPA of changes which may result in permit noncompliance	Within 15 days of change

16	Application for permit modification indicating permit is to be transferred	At least 90 days prior to transfer date
18	Submission of any information required in a compliance schedule	14 days after each schedule date
19	Report to Illinois EPA any non-compliance which may endanger health or environment	
	by telephone	24 hours after discovery
	in writing	5 days after dis
20	Report all other instances of noncompliance → w/ permit proof?	March 1 of each year along with Annual Report
27	Notify the Regional Administrative in writing of expected receipt of hazardous waste from a foreign source	4 weeks prior to receipt of waste
39	Update arrangements with local authorities	At a least annually
40	Implementation of Contingency Plan	
	Notify appropriate state and local agencies with designated response roles	As needed
	Notify appropriate local officials	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable
	Notify the Illinois EPA (217/782-3637) or Illinois ESDA (217/782-7860) if emergency coordinator determines there has been a release, fire or explosion which could threaten	Immediately after determination made

	human health or the environment, outside the facility	
	Notify Illinois EPA and appropriate state and local authorities, in writing that facility is in compliance with 35 IAC 724.156(h)	Prior to resuming operation in affected areas
	Report to Illinois EPA details regarding incident which required implementation of contingency plan	15 days after event
46	Submit annual report required by 35 IAC 724.175	March 1 of each year
48	Application for permit modification amending closure plan	Within 90 days of discovery of need for modification
49	Notify Illinois EPA that expecting to close	180 days prior to beginning closure
53(a)	Adjust closure cost estimate for inflation	30 days after anniversary date
53(b)	Revision of closure cost estimate	As needed, within 90 days of discovery of revision
54	Change in financial assurance mechanism for closure	As needed
55	Change in coverage for sudden and non-sudden accidental occurrences	As needed
56	Notify Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings	10 days after commencement of proceeding

SECTION VIII: ADDITIONAL SPECIAL CONDITIONS

A(2)b	Notify Illinois EPA in writing of manifest discrepancy	Within 15 days of discovery and failure to resolve
C(1)	submit closure plan	180 days prior to closure of any hazardous waste management unit
F(2)	Notify Emergency Response Teams	Immediately upon implementation of contingency plan
F(2)	Notify Des Plaines Office	Within 24 hours

SFN:MAS:bjh\96401s.doc

CLEAN HARBORS RECYCLING SERVICES OF CHICAGO, LLC
SECTION IV
CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Section 3004(u) and (v) of RCRA and 35 IAC 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) at its facility in Chicago, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.

2. The original RCRA permit for this facility was issued by Illinois EPA on September 30, 1992; Section IV of this permit contained corrective action requirements. The Permittee has completed all of the corrective action requirements of this initial permit for the SWMUs of concern at the facility.

3. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.

4. The requirements of 35 Ill. Adm. Code 742 must be met, when applicable, in establishing remediation objectives for corrective action.

B. CORRECTIVE ACTION EFFORTS COMPLETED TO DATE

1. On September 30, 1992, Illinois EPA issued a RCRA permit for operation of the Subject facility. Section IV of this permit contained conditions for the corrective action program to be implemented at this facility. The SWMUs of concern were:

   a. Area north of Container Storage Area #1

   b. Area north of Tank Farm #2 and Tank Farm #3

   A drawing showing the location of these units within the facility is provided in Attachment E to this permit.

2. On September 23, 1993, Illinois EPA approved an RFI Phase I Workplan to Investigate soil and groundwater at the facility. This approval letter also allowed CHRSC, LLC to

integrate closure of Tanks T-190 through T-193 (Tank Farm No. 3) into the corrective action process. An interim status closure plan for these units was initially approved by IEPA on August 23, 1990 (Log No. C-541) and was modified on August 30, 1991 (Log No. C-541-M-1). A drawing showing the location of Tank Farm No. 3 within the subject facility is provided as Attachment E to this permit.

3. On December 20, 1993, Illinois EPA approved minor modifications to the RFI Phase I groundwater monitoring efforts.

4. On May 16, 1994, Illinois EPA approved a document, which discussed field activities that had been completed during the first quarter of the Phase I RFI.

5. On September 30, 1994, Illinois EPA approved the RFI Phase I report and required development of a Phase II workplan.

6. On July 5, 1995, Illinois EPA approved an RFI Phase II workplan for soil and groundwater investigation efforts.

7. On June 17, 1996, Illinois EPA approved a Technical Memorandum, which contained the results of the first part of the Phase II soil and groundwater investigation efforts.

8. On May 6, 1998, Illinois EPA approved a request to abandon monitoring wells MW4 and MW5 installed during Phase I of the RFI.

9. On February 8, 1999 Illinois EPA approved the RFI Phase II report and determined no further action was necessary for the soils at the 2 SWMUs of concern. This letter also required that:

   a. Further groundwater monitoring was necessary for the facility and that the Groundwater quality at the site should be evaluated using TACO.

   b. The facility submit a plan to resume closure efforts for Tank Farm No. 3. Closure efforts for this unit had been delayed until the RFI had been completed to allow for a coordinated remediation effort for this unit and the other SWMUs of concern at the facility.

10. On December 27, 1999, Illinois EPA approved a document entitled Phase I Corrective Measures Plan-Site Groundwater Partial Closure Soil Sampling Plan-Former Tank Farm No. 3. This letter approved a soil investigation plan for Tank Farm No. 3 and contained a groundwater monitoring program. In addition, this letter required that the following be submitted for review and approval:

a. The results of the approved soil and groundwater investigation;

b. A summary of all investigative results for Tank Farm No. 3 and the groundwater beneath the facility;

c. Proposed remediation objectives for the area still of concern;

d. Additional information in support of an evaluation of the groundwater at the beneath being conducted under 35 Ill. Adm. Code 742;

e. A plan for completing corrective action for the area still of concern.

11. On January 8, 2001, Illinois EPA approved a document entitled "Phase I Corrective Measures for Site Groundwater and Partial Closure Soil Sampling for Tank Farm No. 3." This letter:

a. Approved a proposed corrective action effort for soils at Tank Farm No. 3 (removal of some contaminated soil, establishment of an engineered barrier and associated institutional control to restrict exposure to the remaining soils, properly address the groundwater exposure route under TACO);

b. Indicated that the groundwater exposure route could be eliminated once the following was submitted and approved by Illinois EPA:

(1) a report documenting completion of corrective action of the soils at Tank Farm 3;

(2) information demonstrating that the requirements of 35 Ill. Adm. Code 742.370(a) have been met concerning the soil saturation limits and the soil attenuation capacities; and

(3) information demonstrating that the TACO requirements relative to the use of an ordinance as an institutional control have been met.

c. Set forth a groundwater monitoring program to be implemented at the facility.

12. On March 23, 2001, Illinois EPA approved a soil sampling/analysis plan to better characterize the extent of soil contamination at Tank Farm No. # 3. Once the results of the approved sampling/analysis effort is complete, CHRSC, LLC was to continue with the soil remediation effort approved by Illinois EPA's January 8, 2001 letter.

13. On December 3, 2002, Illinois EPA approved an April 18, 2002 submittal and a document entitled "RCRA Corrective Action and Partial RCRA Closure Design Report for Tank Farm No. 3". This letter:

    a. Approved a proposed ELUC as it relates to an engineered barrier over Tank Farm No. 3.

    b. Required CHRSC, LLC to excavate inside the dike of Tank Farm No. 3 to remove the highest levels of contamination. This includes soil that exceeds the soil saturation limit and the soil attenuation capacity. An engineered barrier was then to be established over this area.

    c. Established the requirements for continuing to carry out a groundwater monitoring program.

    d. Established the requirements for properly establishing the groundwater exposure route.

    e. Required that a report be submitted documenting the completion of the approved efforts and describing the efforts which must still be carried out to complete corrective action responsibilities at this facility.

14. On March 12, 2004, Illinois EPA determined that no further action was necessary for: (1) corrective action of the Area North of Container Storage Area #1 and the Area North of Tank Farms 2 and 3; and (2) closure of Tank Farm 3.

15. On June 14, 2004, CHRSC, LLC submitted to the Illinois EPA well sealing forms documenting abandonment of all facility monitoring wells.

C. CURRENT STATUS OF CORRECTIVE ACTION

As indicated above, the Permittee has completed all corrective action requirements of its original RCRA permit. The following restrictions have been established at this facility as part of these efforts:

1. The CHRSC, LLC facility located at 1445 W. 42nd in Chicago, Illinois (PIN 20-05-112-001, 20-05-112-008, 20-05-112-009, 20-05-112-013, 20-05-108-005, 20-05-108-006, 20-05-108-007, and 20-05-108-009) is subject to an Environmental Land Use Control recorded with the Cook County Recorder of Deeds on January 14, 2004 as Document Number 0401503041. This ELUC shall apply in perpetuity to the facility

and shall not be released until: (1) Illinois EPA determines that there is no longer a need for this ELUC; (2) Illinois EPA, upon written request from the property owner and in accordance with 35 Ill. Adm. Code 742.1010, issues an amended certification of closure or a permit modification approving modification/elimination of the ELUC requirements; and (3) a release or modification of the ELUC is filed on the chain of title for the Property.

2. The ELUC referenced in Condition C.1 above places the following restrictions on the subject property:

   a. The property must be limited to industrial/commercial use in the future.

   b. An engineered barrier must be maintained over contaminated soil present beneath a portion of the facility as shown on the site layout map contained in Attachment E to this permit. Construction/excavation efforts conducted in the soil beneath the barrier must be carried out in accordance with a health and safety plan meeting the requirements of 29 CFR. Any soil removed from beneath the barrier must be managed as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.

   c. All groundwater located beneath the site cannot/will not be used as a potable supply of water.

3. Failure to comply with the limitations or requirements of an ELUC may result in voidance of an Agency no further action determination in accordance with the program under which the determination was made. The failure to comply with the limitations or requirements of an ELUC may also be grounds for an enforcement action pursuant to Title VIII of the Illinois Environmental Protection Act.

4. At no time shall this site be used in a manner inconsistent with the land use limitations established in the ELUC identified in Condition C.1 above, unless: (1) attainment of objectives appropriate for the new land use is achieved, and (2) a new no further action determination is obtained from Illinois EPA and subsequently recorded in accordance with 35 Ill. Adm. Code 742.

   a. Requests to release or modify an ELUC must be formally requested in writing from Illinois EPA as a: (1) request to amend the certification of closure; or (2) a permit modification request. Sufficient information must be provided in these requests to demonstrate that the requested change meets all the requirements of 35 Ill. Adm. Code 742.

b. Any final approval by Illinois EPA of a request to release or modify an ELUC must be filed with the chain of title for the subject facility.

D. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

1. The Permittee shall prepare a cost estimate for the completion of any corrective action required under Conditions IV.E or IV.F or this permit, in order to provide financial assurance for completion of corrective action, as required under 35 IAC 724.201(b). Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this permit. This cost estimate must be included in each workplan or report submitted to Illinois EPA.

2. The Permittee shall demonstrate continuous compliance with 35 IAC 724.201 by providing documentation of financial assurance using a mechanism specified in 35 IAC 724.243, in at least the amount of the cost estimate required under Condition IV.D.2. The words "completion of corrective action" shall be substituted for "closure and/or post-closure", as appropriate in the financial instrument specified in 35 IAC 724.251. This documentation shall be submitted to the Agency's DLPC within 60 days after the Agency's approval of the initial or revised cost estimates required under Condition IV.D.1. The Agency's DLPC may accept financial assurance for completion of corrective action in combination with another financial mechanism that acceptable under 35 IAC 724.246 at its discretion.

E. REQUIREMENTS FOR ADDRESSING NEWLY- IDENTIFIED SWMU(s)

1. The Permittee shall notify the Agency's DLPC in writing of any newly-identified SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:

   a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;

   b. The type and past and present function of the unit;

c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);

d. The period during which the unit was operated;

e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and

f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.

2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU, the Agency's DLPC may request in writing, that the Permittee prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment. Additional guidance regarding the contents of this plan will be provided along with the written request for submittal of a SWMU Assessment Plan.

3. Within 60 calendar days after receipt of the Agency's DLPC request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan.

4. After the Permittee submits the SWMU Assessment Plan, the Agency's DLPC shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Agency's DLPC shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.

5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Agency's DLPC in accordance with the schedule in the

approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.

6. The Permittee must implement a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time Illinois EPA notifies the Permittee of the need for such a program.

7. All workplans submitted to Illinois EPA must contain a detailed estimate of the cost of the efforts needed to carry out the proposed activities; this estimate must be developed in accordance with Condition IV.D.1 above. Once these cost estimates are approved, appropriate financial assurance must be established in accordance with Condition IV.D.2 above.

8. Overall efforts for these activities must meet the requirements of 35 Ill. Adm. Code 724.201 and 742.

F. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Agency must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition IV.E.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection IV.E above, including the requirements for cost estimates and financial assurance. The results of all corrective action efforts required by this condition must meet the requirements of 35 Ill. Adm. Code 724.201.

SFN:MAS:bjh\96401s.doc

SECTION V
AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

A. IDENTIFICATION OF REGULATED DEVICES

The Permittee shall mark each piece of equipment to which Subpart BB applies in such a manner that it can be distinguished readily from other pieces of equipment.

B. LIGHT LIQUID SERVICE PUMPS

1. The Permittee shall monitor each pump in light liquid services subject to Subpart BB as specified below:

   a. Conduct monthly monitoring to detect leaks as required by 35 Ill. Adm. Code 724.963(b) and described in the approved permit application.

   b. Perform visual inspections each calendar week for indications of liquids dripping from the pump seal.

2. The Permittee shall repair all pumps in light liquid service that are Subject to Subpart BB in accordance with the following:

   a. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the Permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

   b. A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

   c. A leak is detected from pumps in light liquid service if:

      i. an instrument reading of 10,000 ppm or greater is measured, or

      ii. there are indications of liquids dripping from the pump seal

C. VALVES

1. The Permittee shall monitor each valve in gas-vapor or light liquid service that is subject to Subpart BB monthly. Monitoring must be adequate to detect leaks by the methods specified in Section 724.963(b). The Permittee shall implement procedures for leaks as described in the approved permit application when an instrument reading of 10,000 ppm or greater is measured.

2. The Permittee shall monitored and repair each valve in gas-vapor or light liquid service that is subject to Subpart BB in accordance with the following procedures:

   a. Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

   b. If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months.

   c. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the Permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

   d. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

3. The Permittee shall make first attempts at repair which include, but are not limited to the following best practices when practicable:

   a. Tightening of bonnet bolts.

   b. Replacement of bonnet bolts.

   c. Tightening of packing gland nuts.

   d. Injection of lubricant into lubricated packing.

D. RECORD KEEPING

1. The Permittee shall record the following information in the facility operating record:

   a. For each piece of equipment to which Subpart BB applies:

      i. Equipment identification number and hazardous waste management unit identification.

      ii. Approximate locations within the facility (e.g. gas-vapor or liquid).

      iii. Type of equipment (e.g. a pump or pipeline valve).

      iv. Percent-by-weight total organics in the hazardous wastestream at the equipment.

      v. Hazardous waste state at the equipment (e.g., gas-vapor or liquid).

      vi. Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

      vii. P&ID of the hazardous waste management unit that includes the BB equipment.

   b. Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4) and Section 724.935(b)(4) and the approved permit application.

2. When each leak is detected as specified in Section 724.952, 724.953, 724.957 or 724.958, the Permittee shall comply with the following requirements.

   a. A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.

   b. The identification on all equipment except valves required by Condition V.D(2)(b) above, except valves, may be removed after it has been repaired.

c. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 724.957(c) and no leak has been detected during those 2 months.

3. When each leak is detected as specified in Section 724.952, 724.953, 724.957 or 724.958, the Permittee shall record the following information in an inspection log which must be kept in the facility operating record:

a. The instrument and operator identification numbers and the equipment identification number.

b. The date evidence of a potential leak was found in accordance with Section 724.958(a).

c. The date the leak was detected and the dates of each attempt to repair the leak.

d. Repair methods applied in each attempt to repair the leak.

e. "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

f. "Repair delayed" and the reason for the delay if a leak is not required with 15 calendar days after discovery of the leak.

g. A detailed description of the reasons that repair could not be effected without a hazardous waste management unit shutdown and the expected date of successful repair of the leak. If the leak is repaired within 15 calendar days, signed and certified by the facility operator in accordance with the procedures in 35 Ill. Adm. Code 702.126.

h. The date of successful repair of the leak.

4. The Permittee shall record design documentation on monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960. The information shall be kept-up-to-date in the facility operating record as specified in Section 724.935(d)(1) and (2), and monitoring, operating and inspection information in Section 724.935(c)(3)(through (8).

5. The Permittee shall record information pertaining to all equipment subject to the requirements of Subpart BB. The following information shall be kept in a log as part of the facility operating record:

   a. A list of identification numbers for equipment (except welding fittings) subject to the requirements of Subpart BB.

   b. Compliance testing information including copies of:

      i. The dates of each required compliance test.

      ii. The background level measured during each compliance test.

      iii. The maximum instrument reading measured at the equipment during each compliance test.

      iv. A list of identification numbers for equipment in vacuum service.

E. LIGHT LIQUID PUMPS

For each pump subject to Section 724.952, the Permittee shall record the following information in a log that is kept in the facility operating record:

1) Criteria required in Section 72.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.

2) Any changes in these criteria and the reasons for the changes.

F. REPORTING REQUIREMENTS

1. The Permittee shall notify the Agency's Bureau of Land's Field Section in writing before implementing the Alternative Percentage Standards for Valves or the Skip Period Alternative for Valves. The request for the Alternate Percentage Standards for Valves should include a performance test in accordance with 35 Ill. Adm. Code 724.961(c).

2. The Permittee must submit a semi-annual report to the Agency by the last day of March and September of each year. The report must include the following information:

a. The USEPA and Illinois EPA identification numbers (35 Ill. Adm. Code 722.112), name, and address of the facility.

b. For each month during the semi-annual reporting period:

   i. The equipment identification number of each valve for which a leak was not repaired as required in Section 724.957(d).

   ii. The equipment identification number of each pump for which a leak was not repaired as required in Section 724.952(c) and (d)(6).

   iii. The equipment identification number of each compressor for which a leak was not repaired as required in Section 724.953(g).

c. Dates of hazardous waste management unit shutdowns that occurred with the semi-annual reporting period.

d. For each month during the semi-annual reporting period, dates when the control device installed as required by Sections 724.952, 724.953, 724.954 or 724.955, exceeded or operated outside of the design specifications as defined in Section 724.964(e) and as indicated by the control device monitoring required by Section 724.960 and was not corrected within 24 hours, the duration and cause of each exceedence, and any corrective measures taken.

If during the semi-annual reporting period, leaks from valves, pumps and compressors are repaired as required in Sections 724.957(d), 724.952(c) and (d)(6) and 724.953(g), respectively, and the control device does not exceed or operate outside of the design specifications as defined in Section 724.964(e) for more than 24 hours, a report to the Agency is not required.

The report shall be sent to the following address:

Illinois EPA
BOL – Permit Section #33
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

SFN:MAS:bjh\96401s.doc

SECTION VI
AIR EMISSION STANDARDS FOR CONTAINERS AND TANKS

A. CONTAINERS

1. Whenever hazardous waste is in a container using Container Level 1 or 2 controls, the Permittee shall install all covers and closure devices for the container and secure and maintain each closure device in closed position, except:

   a. Opening of a closure device or cover for a container is allowed for the purposes of adding/removing hazardous waste or material as follows:

      i. In the case where the container is filled to the intended final level in one continuous operation, the Permittee shall promptly secure the closure devices in the closed position and install the covers upon conclusion of the filling operation.

      ii. In the case where discrete quantities or batches of material intermittently are added to the container over a period of time, the Permittee shall promptly secure the closure devices in the closed position and install covers upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

      iii. An empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time.

      iv. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the Permittee shall promptly secure the closure devices in the closed position and install covers upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

b. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste.

c. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications.

d. Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition.

2. The Permittee shall inspect the containers and their covers and closure devices as follows:

a. In the case when a hazardous waste already is in the container at the time the Permittee first accepts possession of the container at the facility and the container in not emptied within 24 hours after the container is accepted at the facility, the Permittee shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility.

b. In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the Permittee shall visually inspect the container and its cover and closure device initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position.

c. When a defect is detected for the container, cover, or closure devices, the Permittee shall make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible butt no later than five calendar days after detection. If repair cannot be completed with five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

3. Level 3 Containers

The Permittee shall inspect and monitor the closed-vent systems and control devices as specified in 35 Ill. Adm. Code 724.987.

B. TANKS

1. The Permittee shall operate each tank identified in condition II.B.1 with each closure device secured in the closed position except to provide access to the tank for performing routine inspections and maintenance, to maintain the tank internal pressure in accordance with the tank design specifications, or for the opening of a safety device to avoid an unsafe condition.

For each tank identified in condition II.B.1 the Permittee shall inspect air emission control equipment in accordance with the following:

a. The fixed roof and its closure devices must be visually inspected to check for defects that could result in air pollution emissions.

b. An initial inspection of the fixed roof and its closure devices must be performed on or before the date that the tank becomes subject to Subpart CC. Thereafter, the Permittee shall perform the inspections at least once every year.

c. In the event a defect in the air emission control equipment is detected, the Permittee shall repair the defect in accordance with condition VI.B.4.

d. The Permittee shall maintain a record of the inspection in accordance with 35 Ill. Adm. Code 724.989(b).

2. Whenever a waste is in the tank, the Permittee shall not operate the fixed roof tanks identified in condition II.B.1 unless each closure device has been secured in the closed position and the vapor headspace underneath the fixed roof has been vented to the control device except as follows:

a. provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

b. remove accumulated sludge or other residue from the bottom of a tank.

c. open a safety device to avoid an unsafe condition.

The Permittee shall inspect and monitor the air emission control equipment in accordance with the following procedure:

a. The fixed roof and its closure devices must be visually inspected by the Permittee to check for defects that could result in air pollutant emissions.

b. The closed vent system and control device must be inspected and monitored by the Permittee in accordance with the procedures specified in 35 Ill. Adm. Code 724.987.

c. The Permittee shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Subpart CC. Thereafter, the Permittee shall perform the inspections at least once every year except for the special conditions provided for in 35 Ill. Adm. Code 724.984(l).

d. In the event a defect is detected the Permittee shall repair the defect in accordance with the requirements of condition VI.B.4.

e. The Permittee shall maintain a record of the inspection in accordance with the requirements specified in 35 Ill. Adm. Code 724.989.

3. For pressure tanks

Whenever a hazardous waste is in the tank, the Permittee must operate the tank as a closed system that does not vent to the atmosphere except in the event that a safety device is required to open to avoid an unsafe condition.

4. Repair Condition

The Permittee shall repair each defect detected during an inspection as follows:

a. The Permittee shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after a detection.

b. Repair of a defect may be delayed beyond 45 calendar days if the Permittee determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank

capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the Permittee shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

C. REPORTING REQUIREMENTS

1. For tanks and miscellaneous units using air emission control device

The Permittee shall report to the Agency each occurrence when hazardous waste is managed in the unit in noncompliance with the conditions specified in 35 Ill. Adm. Code 724.984(b). The Permittee shall submit a written report within 15 calendar days of the time that the Permittee becomes aware of the occurrence. The written report shall contain the USEPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the Permittee.

2. For control devices in 724.987

a. The Permittee shall submit a semiannual written report to the Agency for control devices used in accordance with 35 Ill. Adm. Code 724.987, except as provided condition (b) below. The report shall describe each occurrence during the previous 6-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in 35 Ill. Adm. Code 724.935(c)(4) or a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in 35 Ill. Adm. Code 724.933(d). The written report shall include the USEPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the Permittee.

b. A report to the Agency is not required for a 6-month period during which all control devices subject to Subpart CC are operated by the Permittee so that both of the following conditions result: during no period of 24 hours or longer did a control device operate continuously in noncompliance with

the applicable operating values defined in Section 724.935(c)(4) and no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d).

SFN:MAS:bjh\96401s.doc

Section VII: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. EFFECT OF PERMIT. The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 IAC 702.181)

2. PERMIT ACTIONS. This permit may be modified, reissued or revoked for cause as specified in 35 IAC 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. (35 IAC 702.146)

3. SEVERABILITY. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 IAC 700.107)

4. PERMIT CONDITION CONFLICT. In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 IAC 702.160)

5. DUTY TO COMPLY. The Permittee shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 IAC 702.141 and 703.242)

6. DUTY TO REAPPLY. If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 IAC 702.142 and 703.125)

7. PERMIT EXPIRATION. This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application (see 35 IAC 703.181-703.209) and through no fault of the Permittee the Illinois EPA has not issued a new permit as set forth in 35 IAC 702.125.

8. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 IAC 702.143)

9. DUTY TO MITIGATE. In the event of noncompliance with the permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. (35 IAC 702.144)

10. PROPER OPERATION AND MAINTENANCE. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 IAC 702.145)

11. DUTY TO PROVIDE INFORMATION. The Permittee shall furnish to the Illinois EPA, within a reasonable time, any relevant information which the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Illinois EPA, upon request, copies of records required to be kept by this permit. (35 IAC 702.148)

12. INSPECTION AND ENTRY. The Permittee shall allow an authorized representative of the Illinois EPA, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location. (35 IAC 702.149)

13. MONITORING AND RECORDS. (35 IAC 702.150)

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 IAC 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

c. Records of monitoring information shall include:

i. The date(s), exact place, and time of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) who performed the analyses;

v. The analytical technique(s) or method(s) used; and

vi. The result(s) of such analyses. (35 IAC 702.150)

14. REPORTING PLANNED CHANGES. The Permittee shall give notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. For a new HWM facility, the Permittee may not commence treatment, storage or disposal of

hazardous waste; and for a facility being modified the Permittee may not treat, store or dispose of hazardous waste in the modified portion of the facility, until:

a. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

b.

1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or

2. If, within 15 days of the date of submission of the letter in paragraph (a), the Permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage or disposal of hazardous waste. (35 IAC 703.244 and 702.152(a))

15. ANTICIPATED NONCOMPLIANCE. The Permittee shall give advance notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the Permittee shall not treat, store or dispose of hazardous waste; and for a facility being modified, the Permittee shall not treat, store or dispose of hazardous waste in the modification portion of the facility, except as provided in Section 703.280, until:

i. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

ii. Either:

a. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

b. Within 15 days after the date submission of the letter in section i above, the Permittee has not received notice from the Illinois EPA of its intent to inspect, the Permittee may commence treatment, storage or disposal of hazardous waste.

(35 IAC 702.152(b) and 703.247)

16. TRANSFER OF PERMITS. This permit is not transferable to any person except after notice to the Illinois EPA. The Illinois EPA may require modification of the permit to change the

name of the Permittee and incorporate such other requirements as may be necessary under the appropriate Act. (See Sections 703.260 and 703.270, in some cases modification is mandatory.) (35 IAC 702.152(c))

17. MONITORING REPORTS. Monitoring results shall be reported at the intervals specified in the permit. (35 IAC 702.152(d))

18. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 IAC 702.162. (35 IAC 702.152(e))

19. TWENTY-FOUR HOUR REPORTING.

    a. The Permittee shall report to the Illinois EPA any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:

        i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.

        ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.

    b. The description of the occurrence and its cause shall include:

        i. Name, address, and telephone number of the owner or operator;

        ii. Name, address, and telephone number of the facility;

        iii. Date, time, and type of incident;

        iv. Name and quantity of material(s) involved;

        v. The extent of injuries, if any;

        vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five day written notice requirement in favor of a written report within fifteen days. (35 IAC 702.152(f) and 703.245(b))

20. OTHER NONCOMPLIANCE. The Permittee shall report all instances of noncon not otherwise required to be reported under Standard Conditions 17, 18, and 19, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 19. (35 IAC 702.152(g))

21. OTHER INFORMATION. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 IAC 702.152(h))

include manifest as a qu? no

22. REPORTING REQUIREMENTS. The following reports required by 35 Ill. Adm. Code 724 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):

a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the Permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 IAC 724.172(b))

b. Unmanifested waste report: The Permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 IAC 724.176)

c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 IAC 724.175)

including on LQG

23. SUBMITTAL OF REPORTS OR OTHER INFORMATION. All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

Illinois Environmental Protection Agency
Division of Land Pollution Control #33
Planning and Reporting Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

24. SIGNATORY REQUIREMENT. All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 IAC 702.126. (35 IAC 702.151)

25. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 IAC 702.103 and 35 IAC 161.

26. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE. The Permittee shall maintain at the facility, until closure is complete, the following documents and amendment and modifications to these documents:

a. Waste analysis plan as required by 35 IAC 724.113(b) and this permit.

b. Personnel training documents and records as required by 35 IAC 724.116(d) and this permit.

c. Contingency plan as required by 35 IAC 724.153(a) and this permit.

d. Closure plan as required by 35 IAC 724.212(a) and this permit.

e. Cost estimate for facility closure as required by 35 IAC 724.242(d) and this permit.

f. Operating record as required by 35 IAC 724.173 and this permit.

g. Inspection schedules as required by 35 IAC 724.115(b) and this permit.

27. WASTE MINIMIZATION. The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently

available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 35 IAC 724.173(b)(9).

GENERAL FACILITY STANDARDS

28. NOTICE OF WASTE FROM A FOREIGN SOURCE. The Permittee who has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected at the facility. (35 IAC 724.112(a))

29. NOTICE OF WASTE FROM OFF-SITE. The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the Permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 IAC 724.112(b))

30. GENERAL WASTE ANALYSIS. The Permittee shall comply with the procedures described in the approved waste analysis plan. (35 IAC 724.113)

31. SECURITY. The Permittee shall comply with the security provisions of 35 IAC 724.114(b) and (c).

32. GENERAL INSPECTION REQUIREMENTS. The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 IAC 724.115(c). Records of insp[illegible] be kept as required by 35 IAC 724.115(d).

33. PERSONNEL TRAINING. The Permittee shall conduct personnel training as required by 35 IAC 724.116 and shall maintain training documents and records as required by 35 IAC 724.116(d) and (e).

34. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee shall comply with the requirements of 35 IAC ~~724.117~~. 264.17?

PREPAREDNESS AND PREVENTION

35. DESIGN AND OPERATION OF FACILITY. The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 IAC 724.131)

36. REQUIRED EQUIPMENT. The Permittee shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 IAC 724.132.

37. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee shall test and maintain the equipment specified in condition 36 as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 IAC 724.133)

38. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee shall maintain access to the communications or alarm system as required by 35 IAC 724.134.

39. REQUIRED AISLE SPACE. The Permittee shall maintain aisle space as required by 35 IAC 724.135 and National Fire Protection Association (NFPA) requirements.

40. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 IAC 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

CONTINGENCY PLAN

41. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 IAC 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed). Within 15 days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 IAC 724.156(j).

42. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 IAC 724.153.

43. AMENDMENTS TO PLAN. The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 35 IAC 724.154.

44. EMERGENCY COORDINATOR. A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 IAC 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

45. MANIFEST SYSTEM. The Permittee shall comply with the manifest requirements of 35 IAC 724.171, 724.172 and 724.176.

46. OPERATING RECORD. The Permittee shall maintain a written operating record at t facility in accordance with 35 IAC 724.173.

47. ANNUAL REPORT. The Permittee shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 IAC 724.175.

CLOSURE

48. PERFORMANCE STANDARD. The Permittee shall close the facility as required by 35 IAC 724.211 and in accordance with the approved closure plan.

49. AMENDMENT TO CLOSURE PLAN. The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 IAC 724.212(c).

50. NOTIFICATION OF CLOSURE. The Permittee shall notify the Illinois EPA at least 60 days prior to the date it expects to begin closure. (35 IAC 724.212(d))

51. TIME ALLOWED FOR CLOSURE. After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 IAC 724.213)

52. DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT. When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 IAC 724.214) plan.

53. CERTIFICATION OF CLOSURE. When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 IAC 724.215 that the facility has been closed as specified by the approved closure plans.

54. COST ESTIMATE FOR FACILITY CLOSURE. The Permittee's original closure cost estimate, prepared in accordance with 35 IAC 724.242, must be:

    a. Adjusted for inflation either 60 days prior to each anniversary of the date on which the first closure cost estimate was prepared or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year.

    b. Revised whenever there is a change in the facility's closure plan increasing the cost of closure.

    c. Kept on record at the facility and updated. (35 IAC 724.242)

55. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee shall demonstrate compliance with 35 IAC 724.243 by providing documentation of financial assurance, as required by 35 IAC 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 IAC 724.243.

56. LIABILITY REQUIREMENTS. The Permittee shall demonstrate continuous compliance with the requirements of 35 IAC 724.247 and the documentation requirements of 35 IAC 724.251.

57. IN CAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee shall comply with 35 IAC 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

58. DISPOSAL PROHIBITION. Any waste identified in 35 IAC Part 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 IAC Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.

59. DILUTION PROHIBITION. The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 IAC 728, Subpart D (35 IAC 728.103).

60. WASTE ANALYSIS.

1. The Permittee must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

LDR Not Form

2. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.

3. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 IAC 728.107 and 728.150(a)(1).

61. STORAGE RESTRICTIONS

1. The Permittee shall not store hazardous wastes restricted from land disposal under 35 IAC Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 IAC 728.150 or such information is recorded and maintained in the operating records at the facility.

2. The Permittee must comply with the operating record requirements of 35 IAC 724.173.

62. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 IAC Part 728, Subpart C, or for which treatment standards have been established under 35 IAC 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 58 through 61 above.

SFN:MAS:bjh\96401s.doc

SECTION VIII
SPECIAL CONDITIONS

A. Waste Analysis

1. All hazardous waste blended into a fuel to be burned for energy recovery must have a heating value of at least 5,000 BTU/lb. This requirement may be superseded if the Permittee provides documentation to the Illinois EPA that all facilities which receive the waste fuel have a certification of compliance based on the specification in the approved permit application.

2. The Permittee shall document the receipt of each load of waste at that site in the operating record. The results of the mandatory and any supplemental analyses performed on the received waste shall also be placed in the operating record.

   a. If significant manifest discrepancies in quantity are encountered, the procedures used to reconcile the discrepancy shall be included in the operating record;

   b. If a significant manifest discrepancy is not resolved within (15) days after receiving the waste, the Permittee must immediately submit a letter to the Illinois EPA's Division of Land Pollution Control, describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.

3. Used oil which is received at this facility for blending into a fuel program or re-refining is subject to a TCLP analysis unless an analysis (by EPA Method 9077) shows total chlorine is less than 1000 ppm or an adequate rebuttal is made. Used oil destined for other uses besides a fuel program or re-refining (disposal, road application, . . .) are subject to the full TCLP requirements.

4. Storage

   Before any wastes are placed into a storage unit, facility management will assess the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein.

   a. <u>Containerized Storage Compatibility</u> will be assessed by performing a Liquid Waste Compatibility Test, on the waste received for container storage with a composite sample aggregating all samples taken from the candidate storage area in a seven day period. If the incoming sample passes the Liquid Waste Compatibility criteria, an aliquot of the incoming sample will be added to the composite to create a compatibility composite for the next sample.

b. Tank Farm Compatibility will be assessed by performing a Liquid Waste Compatibility Test, 11, on the liquid received for bulk storage with a composite sample of the tanks within the containment system to which the new waste will be added.

Ignitable wastes will be handled according to 40 CFR 265.17 to prevent accidental ignition.

The below referenced procedure, Liquid Waste Compatibility Test D5058A, is described in the following publication "Annual Book of ASTM Standards", American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19013, most recent edition.

Under the revised method the test will be conducted at 1:1 ratio of the new waste stream and the composite of existing wastes stored at the facility. The Permittee shall use a 100 ml composite of existing waste streams from which a 5 ml is taken to test 5 ml of a sample of the waste stream received for storage at the facility. If no reaction is observed, a second 5 ml aliquot of the same sample is added to the larger (remaining 95 ml) composite in preparation for testing the next sample.

5. Receipt Analysis

A. Core Business

OK's Typo?

Wastes received from Safety-Kleen's core business will be bulked into dedicated storage tanks and analyzed for the parameters outlined in the Waste Analysis Plan prior to processing. These waste streams only include wastes associated with the following:

Parts Washer Solvent
Immersion Cleaner Solvent
Paint Gun Cleaner Solvent and Paint Wastes
Dry Cleaning Solvent and Filters
Used Oils
Antifreeze/Coolants

B. Industrial Wastes

The Permittee shall determine visual characteristics (color, obvious viscosity, phase, etc.) which are appropriate to each waste stream to aid in determining if the

physical appearance of the waste received conforms to the description of the waste in the pre-acceptance evaluation.

Changes in physical appearance will require contacting the generator to reconcile the discrepancies. Changes in physical appearance due to different dyes, supplier or variations of the main constituents without a change in the manufacturing operations do not require performing a pre-acceptance analysis. However, if the variation is due to change in the manufacturing process, then the waste shall be treated as a new waste stream and hence will require a new pre-acceptance analysis.

i. Visual Evaluation

a. Bulk wastes shall be visually inspected individually to verify that the contents match the pre-acceptance physical description of the waste.

b. Each container in the shipment will be visually inspected by obtaining a full depth vertical sample to verify that the contents match the pre-acceptance physical description of the waste.

ii. Receipt Sampling and Analysis

a. Bulk wastes shall be individually sampled and analyzed and compared to the pre-acceptance analysis for conformance with an acceptance criteria.

b. Containerized wastes received from each generator containing the same waste profile (each line item on the manifest) shall be composited. This initial composite shall be limited to a maximum of twenty (20) drums. The Permittee shall randomly select every fifth such composite sample to be analyzed and compared to the pre-acceptance ana that waste profile for conformance with an acceptance criteria

The Permittee shall generate a second composite sample which shall be analyzed for the fingerprint parameters (PCBs, VOC, BTU, etc.) outlined in the waste analysis plan. The composite for containerized waste may be composed of different line items containing similar waste codes (F001 and F002); however, this composite shall be limited to a maximum of twenty drums. This test is to determine treatability.

iii. Acceptance Criteria

The initial sample shall be analyzed for VOC and compared to the pre-acceptance analysis for that waste profile. If a new constituent appears, that is detected above 10%, then the waste stream will be considered as a new waste stream and will require a new pre-acceptance analysis.

6. The facility shall conduct pre-acceptance analysis in accordance with the approved waste analysis plan and the following requirements:

a. The waste must be re-analyzed for the pre-acceptance parameters required by the waste analysis plan at least every five years.

b. For hazardous waste, the waste must be categorized as a hazardous waste for each TCLP parameter detected by the VOC test unless the waste is a listed hazardous waste and the parameter detected is the basis for the listing or the waste is analyzed for the parameter in question according to the methods set forth in 35 IAC 721 Subpart C and the constituent is not present above the regulatory limit.

c. All wastes declared nonhazardous must have a completed waste profile that identifies that the waste is nonhazardous.

d. The Permittee shall not accept waste which has not been properly characterized in accordance with 35 Ill. Adm. Code 722.111.

e. Exceptions

i. Based upon the nature of the generator's business and waste generation process, the generator may certify that the eight pesticides (D012, D013, D014, D015, D016, D017, D020 and D031) would not reasonably be expected to be present in their waste. A certification statement must be submitted as part of the application to support this claim.

ii. Petroleum contaminated media and debris from LUST sites are temporarily exempt from full TCLP analysis and the generator may limit anlayses to flashpoint, paint filter test and TCLP lead.

iii. Off-specification, unused or discarded commercial chemicals products may use a MSDS to determine the hazardous constituents present and appropriate USPEA hazardous waste class, if applicable, in lieu of analytical results.

iv. Used oil which is destined for fuel blending must provide analyses for flashpoint, total organic halogen or total chloride, bottom sediment and water, and totals for arsenic, cadmium, chromium, lead, and reactive sulfide.

7. The fingerprint parameters, at a minimum, for used antifreeze/coolant shall be specific gravity, PCBs, halogenated compounds and percent water.

B. Reporting Requirements

1. Any incident which requires implementation of the contingency plan shall be recorded in the facilities operating record in an incident log which is maintained separate from the facilities other operating records. The incident log must include a copy of each incident report. The incident report must include, at a minimum, the waste management units involved in the incident, the cause of the release, measures taken to correct the situation and prevent a reoccurrence in addition to the information identified in the approved application.

C. Closure

1. At least 180 days prior to closure of any hazardous waste management unit at this facility the Permittee shall submit its closure plan to insure it complies with the current Illinois EPA standards in effect at the time of closure.

D. General Operating Requirements

1. The Permittee is prohibited from conducting any waste management activities outside the permitted boundaries of this facility without a permit modification and proof of compliance with Section 3.32 and 39(c) of the Act. Waste management includes storage, staging, treatment, sampling or all other activities not associated with transportation of waste.

2. Container may not be staged on the staging pad for more than 24 hours.

E. Construction Requirements

1. The proposed hazardous waste management units must be constructed in accordance with the approved permit application and the Part B permit. Modification to the tank system and tank or container, secondary containment system including changes to physical dimensions or materials of construction are subject to the permit modification requirements prior to construction. Changes in structural members or foundation design which are completed prior to the operation of the hazardous waste management

unit and have been certified by the Illinois licensed structural engineer of record are not subject to the permit modification requirements provided the changes are made solely to maintain the structural integrity of the unit.

2. The Permittee shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating.

F. Contingency Plan

1. The contingency plan must be implemented whenever there is a fire, explosion or spill which involves hazardous waste or which occurs in areas where hazardous waste is treated or stored. This includes spills within the containment system. A spill is any release of material outside the permitted unit, into or outside of the containment system.

2. The Permittee shall contact the local emergency response entities immediately after implementation of the contingency plan unless the spill is less than one pound in quantity and it is immediately contained and cleaned up, or the spill is below the quantity specified in Condition 2(d) of this section.

   a. The entities which must be notified include:

      1. Chicago Police Department -- 9th Precinct
      2. Chicago Fire Department
      3. University of Illinois Hospital
      4. Mercy Hospital
      5. Raymond Orozco --- Acting Chairman of the Local Emergency Planning Committee
      6. IESDA (IEMA)
      7. National Response Center
      8. DLPC, FOS -- Northern Region (within 24 hours)

   b. The information which must be initially relayed to each entity includes:

      1. The type of emergency (release, fire or explosion);

      2. The type of wastes involved in the emergency and the approximate quantity involved;

      3. An initial assessment of the conditions at the site; and whether outside help is needed to properly respond to the situation.

c. If the Permittee is able to properly respond to the emergency without any aid from the entities identified in Condition 2.a above, the Permittee shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.

d. The following compounds listed in Attachment H will not have an impact off-site if the spill is below the quantity identified below:

Chemical Group	Spill Quantity	Group(s)
Aliphatics alcohols	29 gallons	1
Aliphatics, oxygenated	14 gallons	3
Aliphatics, halogenated	3 gallons	6
Aliphatics, ketones	32 gallons	8
Other aliphatics	9 gallons	2, 5, 9, 10
Aromatic, halogenated	60 gallons	7
Aromatic, general	50 gallons	4

Therefore, the local emergency response entities are not required to be notified because of spill below the quantity identified above. The Permittee shall conduct air modeling for new chemicals (i.e., not listed in Attachment H) for other chemicals contained within approved wastes codes (i.e., Attachment A) prior to managing these chemicals (wastes) at the Chicago Recycle Center. If the spill of the new chemical within it's chemical group would have an impact off-site at a lower quantity than that specified above, the facility must submit a class 1 modification to amend their Part B permit.

3. The Permittee shall provide applicable local emergency response entities with changes/modifications to the contingency plan and offer to meet and review the plan on an annual basis. Copies of the meeting notes and list of attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon verbal or written request.

G. Miscellaneous

1. All used oil which contains greater than 1,000 ppm halogens which cannot be adequately rebutted are hazardous wastes and must be handled accordingly (i.e., they cannot be processed into an on-specification or off-specification used oil fuel).

2. Discharges of precipitation to the storm sewer from the loading/unloading areas shall not be in violation of state or local laws or permits.

3. Financial assurance for the amounts in Attachment F shall be submitted 60 days prior to placing wastes in the unit.

4. Photographic wastes are limited to hazardous waste codes D002 and D011.

H. Generic Waste Streams Authorizations Pursuant to Section 22.11 of the Environmental Protection Act

1. The Permittee is authorized to accept the wastes identified in Condition D(H)(2) below provided the generator complies with the following requirements:

   a. The waste is analyzed in accordance with the waste analysis plan submitted as part of the approved Part B permit application, Condition D(A) and all subsequent waste analysis requirements included in the approved Part B Permit; and it is determined that the waste complies with the acceptance criteria in the approved waste analysis plan;

   b. The waste is delivered by an Illinois special waste hauler or an exempt hauler as defined in 35 Ill. Adm. Code 809.211; and

   c. The waste is accompanied by a manifest, if required.

The Illinois EPA has modified its procedures. As a result, an authorization number is no longer required. Therefore, the generator will no longer be required to identify the authorization number on the manifest when shipping waste as authorized by this permit.

2. The following categories of waste from more than one generator may be accepted:

   a. Nonhazardous waste, received for storage and transfer offsite.

   b. Nonhazardous waste, received for treatment.

c. Hazardous waste, received for treatment.

d. Hazardous waste, received for storage and transfer offsite.

SFN:MAS:bjh\96401s.doc

ATTACHMENT A

WASTES [illegible] AND
HAZARDOUS WASTE IDENTIFICATION NUMBERS

ILD005450697

ATTACHMENT A

WASTES [illegible] AND
HAZARDOUS WASTE IDENTIFICATION NUMBERS

ILD005450697

Hazardous Waste No.	Description of Hazardous Waste
A.	Characteristically hazardous waste
D001	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.

D023 Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.

D024 Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.

D025 Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.

D026 Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.

D027 Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.

D028 Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.

D029 Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.

D030 Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.

D032 Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.

D033 Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.

D034 Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.

D035 Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.

D036 Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.

D037 Solid waste exhibiting the characteristic of TCLP toxicity for pentachlorophenol at 100.0 mg/l or more.

D038 Solid waste exhibiting the characteristic of TCLP toxicity for pyridine at 5.0 mg/l or more.

D039 Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.

D040 Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.

D041 Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.

D042 Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.

D043 Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous wastes from non-specific sources

F001 The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons, spent solvent mixtures/blends used in degreasing, and still bottom from the recovery of these spent solvents and spent solvent mixtures.

F002 The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, 1,1,2-trichloroethane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F003 The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-buryl alcohol, cyclohexanone, methanol, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F004 The following spent non-halogenated solvents: cresols and cresylic acid, nitrobenzene, spent solvent mixtures and blends, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F005 The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F024 Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons.

F037 Petroleum refinery primary oil/water/solids separation sludge.

F038 Petroleum refinery secondary (emulsified) oil/water/solids separation sludge.

C. Hazardous wastes from specific sources

K022 Distillation bottom tars from the production of phenol/acetone from cumene.

K029 Waste from the product steam stripper in the production of 1,1,-trichloroethane.

K030 Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.

K048 Dissolved air flotation float from the petroleum refining industry.

K049 Slop oil emulsion solids from the petroleum refining industry.

K051 API separator sludge from the petroleum refining industry.

K052 Tank bottoms (leaded) from the petroleum refining industry.

K085 Distillation or fractionation column bottoms from the production of chlorobenzene.

K086 Solvent washes and sludges, caustic washes and sludges or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.

K095 Distillation bottoms from the production of 1,1,1-trichloroethane.

K096 Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

D. Discarded commercial chemical products

U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile
U009	Acrylonitrile
U019	Benzene
U031	1-Butanol
U037	Chlorobenzene
U043	Ethane, chloro-
U044	Chloroform
U051	Creosote
U052	Cresols
U055	Cumene
U056	Cyclohexane
U057	Cyclohexanone
U068	Methane, dibromo-
U069	Dibutyl phthalate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U075	Dichlorodifluoromethane
U077	Ethane, 1,2-dichloro
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U080	Methylene Chloride
U083	1,2-Dichloropropane
U084	1,3-Dichloropropene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U110	Dipropylamine
U112	Ethyl acetate
U113	Ethyl acrylate
U117	Ethyl ether
U118	Ethyl methacrylate
U121	Trichloromonofluoromethane
U124	Furan
U125	Furfural
U140	Isobutyl alcohol
U154	Methanol
U159	Methyl ethyl ketone
U161	Methyl isobutyl ketone
U162	Methyl methacrylate

U165	Napthalene
U169	Nitrobenzene
U171	2-Nitropropane
U188	Phenol
U191	2-Picoline
U196	Pyridine
U210	Tetrachloroethylene
U211	Methane, tetrachloro
U213	Tetrahydrofuran
U220	Toluene
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethylene
U239	Xylene
U359	2-Ethoxyethanol

SFN:MAS:bjh\96401s.doc

ATTACHMENT B

INSPECTION SCHEDULE

ILD005450697

Table I: General Inspection Schedule
Security Devices

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Fence	. Inspect entire perimeter for breaches or damage	Weekly
Gates	. Check for proper gate lock function	Weekly
Warning Signs	. Check for presence of warning signs	Monthly
Lighting System	. Check lights for operability	Monthly

Table II: General Inspection Schedule,
Safety & Emergency Equipment

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Protective Gear (e.g., Helmets, Face Shields, Goggles, Boots, Gloves, Acid Resistent Clothing, Disposable Suits, Disposable Bags	. Check accessibility	Monthly
	. Check for adequate supply	Monthly
	. Check for deterioration, damage	Monthly
Breathing Apparatus	. Check for accessibility	Monthly
	. Check for adequate supply, full charge on canisters, and all air tanks	Monthly
	. Check for deterioration and damage	Monthly
	. Check for function	Monthly

First Aid Kits	Check accessibility	Monthly
	Check for adequate supply	Monthly
Emergency Showers	Check that units activate and shut off properly	Weekly
	Check accessibility	Weekly
Water Lines	Check for adequate pressure	Monthly
Internal (Phone or Radio)/External (Phase) Communications Systems	Check accessibility	Weekly
	Check for operations	Monthly
Fire Extinguishers	Check pressure gauge for full charge indication	Monthly
	Check inspection tag to insure annual maintenance by outside fire service is up-to-date	Monthly
	Check seal to ensure no one has used extinguisher	Monthly
	Check to ensure access to units is not blocked	Weekly
Absorbent Supply	Check for adequate supply	Weekly
Recovery Drums	Check for adequate supply	Weekly
Other Emergency and Decontamination Equipment	Check accessibility	Weekly
	Check for adequate supply	Monthly
	Check for deterioration/damage	Monthly

Alternate power supply for alarm system	. Check for disconnection or low charge	Monthly
Respirators and cartridges	. Check for adequate supply	Monthly
Fire department pull stations	. Check for operability and accessibility, location signs	Monthly

Table III: Tank Farms Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Storage Tanks Containment Area	. Check for evidence of spilled materials	Daily
	. Check for cracks and gaps in, or damage to containment base, sumps and drains, and their coatings.	Daily
	. Check for evidence of seepage outside containment (e.g. discoloration)	Daily
	. Check for debris, cleanup residue, improperly stored equipment	Daily
Storage Tanks	. Inspect tank exterior for cracks, leaks, discoloration, and obvious deformation	Daily
	. Check tank integrity	Annually
Access Hatches, Vents, and Sampling Ports	. Check for leaks	Daily
	. Check for damage	Daily
Fill/Drain and Overflow Piping	. Inspect piping for leaks	Daily

	. Inspect valve seals for leaks	Daily
	. Check that handles are not bent or damaged	Daily
Liquid Levels	. Check if operators log book is up to date	Daily
	. Check tank liquid level indicators for operability	Daily
All Ancillary Equipment	. Visual inspection for leaks	Daily
	. Conduct leak test or approved integrity assessment	Annually
Tank Truck loading/ Unloading Area	. Check for evidence of spills or releases in unloading area	Daily
	. Check for removal of spill absorbent and cleanup materials	Daily
	. Check sump, grating and curbs for cracks or other damage	Daily
	. Inspect hoses for deterioration or leakage	Daily
	. Inspect hose couplings and valves for leakage	Daily
	. Inspect containment system for deterioration	Weekly

Table IV: Container Storage Area Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Container Storage	. Check for evidence of spilled material on slab, ramps, drains, sumps	Daily

	. Check for removal of absorbent materials and cleanup rags	Daily
	. Check for, cracks and gaps in, or damage to, containment bases, sump and drains and coatings	Weekly
	. Check for erosion, uneven settlement, etc.	Weekly
	. Check for corrosion of grating over drains and sumps	Weekly
	. Check for condition and availability of overpack containers	Weekly
Stored Containers	. Check for drum leaks or swelling	Weekly
	. Check that drums are not open	Weekly
	. Check for proper placement	Weekly
	. Check adequacy of aisle space	Weekly
	. Check height of stacks	Weekly
	. Check capacity not exceeded	Weekly
	. Check for proper labeling	Weekly
Container Loading/ Unloading Area	. Check for damaged containers	Daily
	. Check for evidence of spilled material on slabe and ramps used	Daily
	. Check for removal of used absorbent and cleaning materials	Daily
	. Check for prompt container removal from receiving area	Daily

ATTACHMENT C

CONSTRUCTION CERTIFICATION FORM

ILD005450697

When submitting certifications required by this Part B permit for construction of any new unit, please complete the attached certification form on Page C-3. This will help to ensure that the submittal reaches its proper destination and the certification will meet the regulatory requirements. Sending the Field Operations Section (F.O.S.) copy directly to the Field Office is acceptable as long as all copies have a completed copy of the enclosed form attached and you advise the Permit Section, in writing, that a copy has been sent to Illinois EPA FOS.

A documentation report and as-built drawings (sealed and signed by an Illinois Professional Engineer) must be included with this certification. Information necessary to document the construction of the unit and to support the certification must be contained within the report. This report should include a thorough description of all construction data and drawings and should be formatted in a logical and orderly manner. The construction documentation report must contain at least the following items:

1. An introduction and summary which describes the scope and purpose of the project;

2. A description of all construction activities, including quality assurance and quality control;

3. As-built drawings of the unit and a description of any deviations from the plans and specifications approved in the permit;

4. A description of the test methods used and justification for any deviations from standard test methods;

5. A summary of test results, identification of any samples which did not meet the specifications and the corrective action and retesting which was undertaken in response to any failing test results;

6. Any necessary information associated with construction of the unit to document that construction was in accordance with the plans and specifications approved by the permit;

7. Information specifically required by the permit; and

8. Any available photographs of the unit.

SFN:MAS:bjh\96401s.doc

CONSTRUCTION CERTIFICATION

This statement is to be completed by both the responsible officer and the registered professional engineer upon completion of construction in accordance with 35 IAC Section 702.126. Submit one copy of the certification with original signatures and two additional copies. Forward these certification statements and any information required by the permit to the following address:

Illinois Environmental Protection Agency
Bureau of Land
Division of Land Pollution Control -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

FACILITY NAME:
IEPA SITE CODE:
USEPA ID NO.:
PART B PERMIT LOG NO.
PERMIT (OR MODIFICATION) ISSUANCE DATE:
PERMIT CONDITION NO. IS REQUIRING CERTIFICATION:

The _____ has been constructed in accordance with the specifications in the Part B. Documentation that the construction was in accordance with the permit is contained in the enclosed report. I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly father and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for fathering the information the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____	
Signature of Owner/Operator	Name and Title
_____	
Signature of Registered P.E.	Name of Registered P.E. and Illinois Registration Number
Date	(P.E. SEAL)

SFN:MAS:bjh\96401s.doc

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

IEPA ID Number
DLPC 0316000053
USEPA ID Number
ILD005450697

Facility Name
CHRSC, LLC
1445 W. 42nd Street
Chicago, Illinois 60609

Signature of Owner/Operator

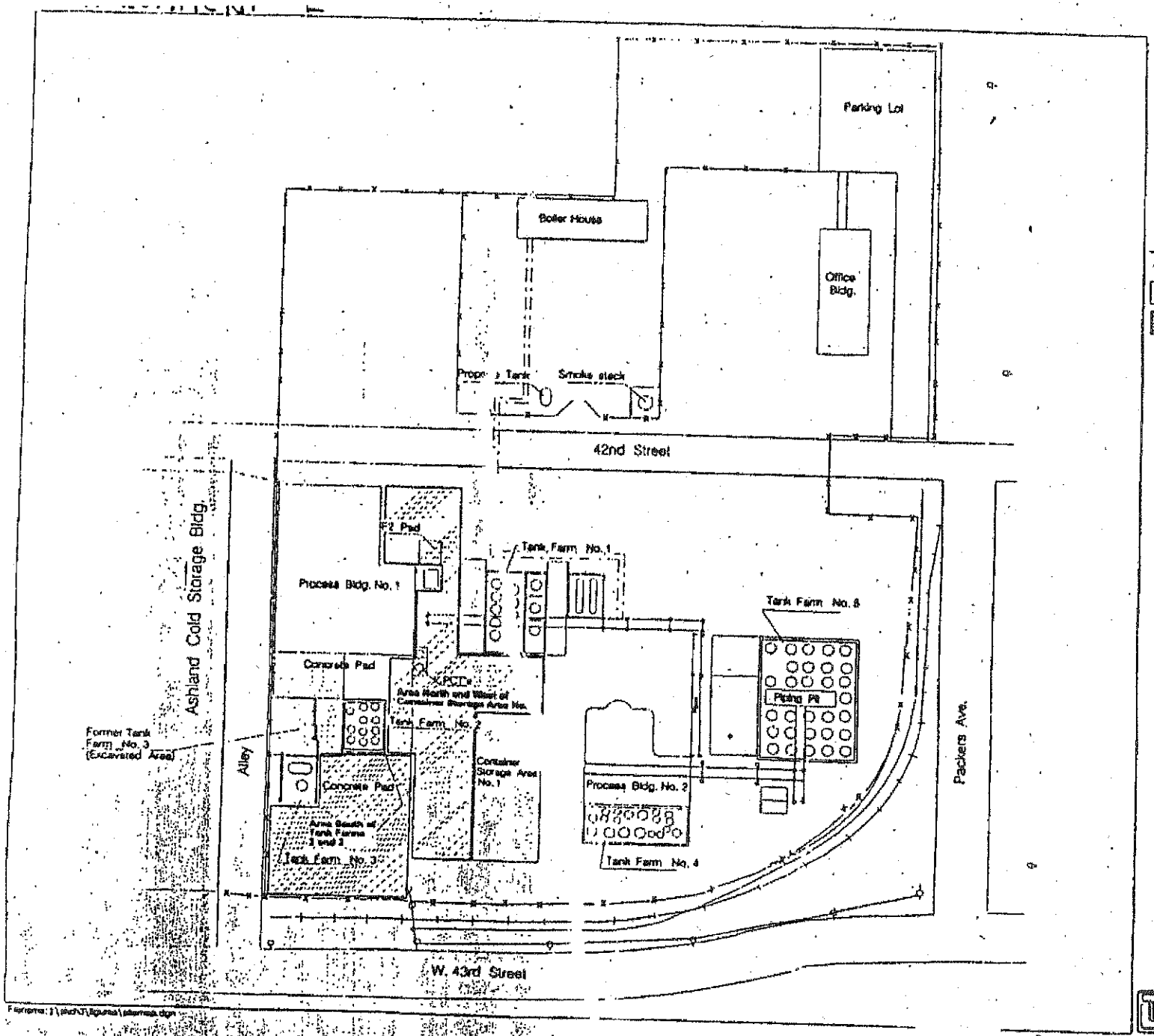
Name and Title

Signature of Registered P.E.

Name of Registered P.E. and Illinois Registration Number

Date

SFN:MAS:bjh\96401s.doc



N

100 0 100

SCALE IN FEET

Legend

- Fenceline ~ Property Boundary
- Engineered Barrier
- Approximate SWMU Areas

SAFETY-KLEEN CORP.
Chicago Recycle Center

LTI Environmental Engineering
A Division of Limno-Tech, Inc.
501 Avis Dr, Ann Arbor, MI 48108

		Total Tankage	Financial Assurance Required for Unit
1.	Existing Tankage	627,050 gallons	1,447,280
2.	Existing Container Storage Volume	108,900 gallons	339,173
3.	Total Container Storage Volume Once Roof Installed item #3 replaces item #2	146,520 gallons	435,699
4.	Proposed Tank Farm	534,000 gallons	1,043,612

These numbers are based on 2001 dollars.

SFN:MAS:bjh\96401s.doc

ATTACHMENT G

APPROVED PERMIT SECTION IDENTIFICATION

For

CHRSC, LLC

ILD005450697

1.0	Part A Application	August 15, 2003
2.0	Facility Description	May 20, 2004
3.0	Waste Characteristics	March 11, 2004
4.0	Process Information	January 10, 2004
5.0	Contingency Plan	October 15, 2003
6.0	Procedures to Prevent Hazards	October 31, 2003
7.0	Training Plan	August 15, 2003
8.0	Closure Plan	May 8, 2002
9.0	Closure Cost Estimate	July 8, 2004
10.0	Financial Responsibility	May 8, 2002
11.0	Other Federal Laws	August 15, 2003
12.0	Subpart AA	October 31, 2003
13.0	Equipment Leaks	October 31, 2003
14.0	Air Emission Standards for Tanks and Containers	October 31, 2003
15.0	Prior Conduct Certification	May 8, 2002
16.0	List of Exhibits	August 15, 2003

SFN:MAS:bjh\96401s.doc

Chemical Compound Groups
Attachment H

	Name	Waste Code	CAS Number
1.	Alcohols		
	Butyl alcohol, n-(1-Butanol)	F003, U031	71-63-3
	Isoamyl alcohol (3-Methyl-1-butanol)		123-51-3
	Isobutanol (Isobutyl alcohol, 2-methyl-1 propanol)	F005, U140	78-83-1
	Methanol	F003, U154	67-56-1
	Phenols	U188	108-95-2
2.	Aliphatic		
	Acetadehyde	U001	75-07-0
	Cyclohexane	U056	110-82-7
	Hexane		110-54-3
3.	Ethers		
	Ethyl ether	F003, U117	60-29-7
	Dioxane, 1,4-	U108	123-91-1
	Tetrahydrofuran	U213	109-99-9
	Ethoxyethanol,2-(cellosolve®)	F005, U359	110-80-5
4.	Aromatic		
	Benzene	F005, D018, U019	71-43-2
	Cumene	U055	98-82-8

Ethyl benzene	F003	100-41-4
Naphthalene	U165	91-20-3
Toluene	F005, U220	108-88-3
Xylene	F003, U239	1330-20-7
5. Esters		
Ethyl acetate	F003, U112	141-78-6
Ethyl acrylate	U113	140-88-5
Ethyl methacrylate	U118	97-63-2
Methyl methacrylate	U162	80-62-6
6. Halogenated, compounds		
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon®113)	F002	76-13-1
Carbon tetrachloride (Tetrachloromethane)	F001, D019, U211	96-23-5
Chlorinated fluorocarbons	F001	
Chloroethane	U043	75-00-3
Chloroform	D022, U044	67-66-3
Dibromomethane (Methylene bromide)	U068	74-95-3
Dichlorodifluoromethane (Freon®12)	U075	75-71-8
Dichloroethane, 1,2-	D028, U077	107-06-2
Dichloroethylene, 1,2-(Vinylidene chloride)	D029, U078	75-35-4
Dichloroethylene, 1,2-(mixed isomers)	U079	540-59-0
Dichloropropane, 1,2-	U083	78-87-5

Dichloropropane 1,3-(mixed isomers)	U084	542-75-6
Methylene chloride (Dichloromethane)	F001, F002, U080	75-09-2
Tetrachloroethylene (Perchloroethylene)	F001, F002, D039, U210	127-18-4
Trichloroethane 1,1,1-	F001, F002, U226	71-55-6
Trichloroethane, 1,1,2-	F002, U227	79-00-5
Trichloroethylene	F001, F002, D040, U228	79-01-6
Trichlorofluoromethane (Freon®11)	F002, U121	75-69-4
Vinyl chloride	D043	75-01-4

7. Halogenated, aromatic

Chlorobenzene	F002, D021, U037	108-90-7
Dichlorobenzene, 1,4-(p-Dich[illegible]enzene)	D027, U072	106-46-7
Dichlorob[illegible]in-	U071	541-73-1
Orthodichlorobenzene (1,2-Dichlorobenzene)	F002	95-50-1
Trichlorophenol 2,3,5-	D041	933-78-8
Trichlorophenol, 2,4,6-	D042	933-75-5

8. Ketone, aliphatic

Acetone	F003, U002	67-[illegible]
Cyclohexanone	F003, U057	108-94-1
Methyl ethyl ketone (2-Butanone)	F005, D035, U159	78-93-3
Methyl isobutyl ketone (4-Methyl-2-pentanone)	F003, U161	108-10-1

9. Nitrogen, aliphatic

Acetonitrile	U003	75-05-8
Nitropropane, 2-	F005, U171	79-46-9
Dimethylacetamide		127-19-5
Dipropylamine	U110	142-84-7
Pyridine	F005, D038, U196	110-86-1
Ethyl Pyrrolidone		2687-91-4
Methyl pyrrolidone		872-50-4

10. Sulfur compound, oxygenated

Dimethylsulfoxide		67-68-5

SFN:MAS:bjh\96401s.doc

Park

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

7008 1830 0001 4712 4387
7008 1830 0001 4712 4394

217/524-3300

NOV 18 2010

Clean Harbors Recycling Services of Chicago, LLC
Attn: Scott Kuhn
1445 W. 42nd Street
Chicago, Illinois 60609

Clean Harbors Recycling Services
of Chicago, LLC
Attn: Alfred Aghapour
1445 W. 42 Street
Chicago, Illinois 60609

Re: 0316000053 -- Cook County
Clean Harbors Recycling Services of Chicago, LLC (CHRSC, LLC)
ILD005450697
RCRA Permit Log No. B-121R-M-2, 4 & 5
RCRA Part B Permit File

Gentlemen:

This letter is in response to your letter dated August 1, 2007 to close tank T-17 and replace tanks T-103 and T-104, and T-1 through T-4 as described in your letters dated April 4, 2008 and July 18, 2008. The Agency has approved your modification request in accordance with 35 Ill. Adm. Code Section 703 Appendix A(D)(1)(c) and (G)(3).

Approval of this modification is based upon review of (1) the RCRA permit issued to Clean Harbors Recycling Services of Chicago, LLC, (2) the regulations (35 Ill. Adm. Code Subtitle G), and (3) the information contained in your submittals. A copy of the approved permit is attached. The modifications to the permit are identified in Attachment 1 to this letter. Operations must be conducted in accordance with the approved RCRA Part B Permit issued to Clean Harbors Recycling Services of Chicago, LLC, (CHRSC, LLC) and all subsequent modifications to the Part B Permit.

Work required by this permit, your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This permit does not relieve anyone from compliance with the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

RELEASABLE

JAN 12 2011

The Permittee must complete the public notice requirements for the modifications. Pursuant to 35 Ill. Adm. Code 703.281(a)(2), a notice of the modification shall be sent to all persons on the facility mailing list, maintained by Illinois EPA in accordance with 35 Ill. Adm. Code 705.163(a)(4), and the appropriate units of the state and local government, as specified in 35 Ill. Adm. Code 705.163(a)(5). This notification must be made within ninety (90) days of the date of issuance of this letter.

If you have any additional questions in this matter, please contact Mark Schollenberger, P.E. at 217/524-3307.

Sincerely,

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:MAS:bjh\96401s.doc

Attachments: Part B Permit
Attachment 1: Summary of Changes to the Permit

cc: Jim Blough, USEPA Region V
Dale Meyer, USEPA Region V

bcc: Bureau File
Des Plaines Region
Hope Wright
Ted Dragovich
Jim Blough, USEPA Region V
Dale Meyer, USEPA Region V
Mark A. Schollenberger Rob Watson

Attachment 1

1. Section II(B)(1) was modified to indicate tank T-17 was closed.

SFN:MAS:bjh\96401s.doc

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

RCRA Log 121 Part B

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE MANAGEMENT RCRA Part B PERMIT

IEPA #0316000053 -- Cook County
USEPA ILD #005450697
Clean Harbors Recycling Services of Chicago, LLC
RCRA Log No. B-121R-M-2, 4 & 5
RCRA Part B -- Administrative Record

Issue Date: March 4, 2005
Effective Date: April 8, 2005
Expiration Date: April 8, 2015
Modification Date: NOV 1 8 2010

OWNER
Clean Harbors Recycling Services of Chicago, LLC
Attn: Scott Kuhn
1445 W. 42nd Street
Chicago, Illinois 60609

OPERATOR
Clean Harbors Recycling Services
of Chicago, LLC
Attn: Alfred Aghapour
1445 W. 42 Street
Chicago, Illinois 60609

Gentlemen:

A Part B permit is hereby granted pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (Ill. Adm. Code) Parts 702, 703, 705, and 720 through 729 to Clean Harbors Recycling Services of Chicago, LLC to maintain and operate a waste management facility involved in the treatment and storage of hazardous waste. The Clean Harbors Recycling Services of Chicago, LLC is located at 1445 West 42nd Street, Chicago, Illinois 60609.

This permit consists of the conditions contained herein (including those in any attachments and appendices) and all applicable regulations contained in the Act and 35 Ill. Adm. Code Parts 702, 703, 705, and 720 through 729 in effect on the effective date of this permit. The Environmental Protection Act (Ill. Rev. Stat., Chapter 111 ½, Section 1039) grants the Illinois Environmental Protection Agency (Illinois EPA) the authority to impose conditions on permits, which is issued. This permit contains 118 pages including attachments A through H.

If you have any questions regarding this permit, please contact Mark Schollenberger, P.E. at 217/524-3307 or Krishnamurthy S. Gadi at 217/524-3863 or Jim Blough of USEPA at 312/886-2967.

Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

SFN:MAS:bjh\96401s.doc

cc: Jim Blough, USEPA Region V
Dale Meyers, USEPA Region V

RCRA Hazardous Waste Management Permit

CHRSC, LLC

ILD005450697

SFN:MAS:bjh\96401s.doc

Table of Contents

Item	Page
General Facility Description	i
I. Containers	I-1 - I-9
II. Tank Systems	II-1 - II-13
III. Reporting and Notification Requirements	III-1 - III-6
IV. Corrective Action	IV-1 - IV-8
V. Subpart BB	V-1 – V-6
VI. Subpart CC	VI-1 – VI-6
VII. Standard Conditions	VII-1 - VII-12
VIII. Special Conditions	VIII-1 – VIII-9

SFN:MAS:bjh\964601s.doc

List of Attachments

ILD005450697

Attachment A -- List of Wastes that can be accepted at this Facility

Attachment B -- Inspection Schedule

Attachment C -- Construction Certification Form

Attachment D -- Closure Certification Forms

Attachment E -- Site Layout Map

Attachment F -- Financial Assurance Requirements

Attachment G -- Approved Permit Section Identification

Attachment H -- Chemical Compound Groups

SFN:MAS:bjh\96401s.doc

Description of the Facility

The Chicago Recycle Center, owned and operated by CHRSC, LLC, is an organic chemicals reclamation and recycling facility that conducts regeneration of the spent solvent and blending/processing of the material for use as a hazardous waste fuel. Wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils and paint wastes. The facility is located within the city limits of Chicago, Cook County, Illinois, between 42nd Street and 43rd Street on approximately eight acres of land approximately 1000 feet east of Ashland Avenue.

Several hazardous waste management units exist at the facility. These units include:

1. An outdoor container storage area (container storage area #1) for wastes received in containers (e.g., any type of container meeting DOT transportation requirements) is used to store waste prior to being processed or shipped off-site. Container storage areas #2 and #3 are not permitted for hazardous waste storage and are used for the storage of product.

2. Nine tanks farms. Tank Farm #1 is an existing area which housed fifteen tanks (Tanks T100-T114). Tanks T100 and T101 are dedicated exclusively to the storage of product material and are not subject to RCRA requirements. Tanks T105-T114 have been removed from service and undergone closure leaving three tanks subject to RCRA. Tank Farm #2 is an existing area containing eleven tanks (Tanks T170-T180) subject to RCRA requirements. Tank Farm #3 is an existing area which housed six tanks (Tanks T190-T195). Tanks T190-T193 have been removed from service and are part of the corrective action activities at the facility. Leaving tanks T194 and 195 subject to RCRA permits. Tank Farm #4 is an existing area containing nineteen tanks (Tanks T1-T6 and T11-T23) subject to RCRA. Tank Farm #5 is an existing area containing thirty-one tanks (Tanks T30-T60). Tanks T54-T60 are dedicated to storage of product material and are not subject to RCRA requirements. Tank Farm #6 is a proposed tank farm containing ten tanks (T61-T70) subject to RCRA requirements. Tank Farm #7 is a proposed unit consisting of ten tanks (T85-T94) subject to RCRA requirements. Tank Farm #8 is a proposed unit consisting of four tanks (T182-T185) subject to RCRA requirements. Tank Farm #9 is a proposed unit consisting of six tanks (T115-T120) subject to RCRA requirements. Tank 199, which was operating under interim status but never permitted in a Part B permit was certified closed in 1991. A Container Storage Area which operated under interim status but never permitted in a Part B permit was certified closed in 1989.

Section I: Container Storage

A. Hazardous Waste Management Units

The container storage area is 148.5 ft. x 57.5 ft. Containers of hazardous waste received at the facility for storage will arrive in either 5 gallon steel pails, 16 gallon drums (steel or polyethylene plastic), 30 gallon drums (steel or polyethylene plastic), 55 gallon steel drums, or 85 gallon overpacks. Containers in the storage area must be stored in a manner which is consistent with the NFPA Outdoor Storage requirements. The Permittee may accept containers which are of different sizes than those listed above in accordance with the following conditions:

1. The container is DOT approved;

2. The container is compatible with the waste;

3. The container is in good condition (not rusting or leaking);

4. The facility has the available equipment and experience to properly manage the containers.

B. Waste Identification

1. All hazardous waste stored in containers shall be located in the storage area (container storage area #1) depicted in Exhibits 3 and 4.

2. The maximum volume of waste to be stored in this area is limited to 108,900 gallons before the design of the roof is approved and installed. Upon certification by an Illinois Registered P.E. that the roof is installed in accordance with the Illinois EPA approved design, the maximum volume of waste which may be stored is 146,520 gallons.

3. The Permittee may store the hazardous waste identified in Attachment A in containers and any non-hazardous waste which is determined to be compatible with the currently stored waste in accordance with Condition VIII.A.4(a). All non-hazardous waste must be evaluated through the waste analysis plan for compatibility. No waste which is incompatible with any of the other permitted wastes may be accepted. The Permittee shall not accept municipal waste, potentially infectious medical waste, construction or demolition debris, asbestos waste or TSCA regulated waste.

4. The Permittee is prohibited from storing a hazardous waste that has not been identified in Attachment A.

5. The Permittee is prohibited from adding additional container storage areas without the appropriate permit modification in accordance with 35 IAC 703, Appendix A.

C. Condition of Containers

1. If a container holding waste is not in good condition (e.g., severe rusting, apparent structural defect, etc.) or if it begins to leak (this includes waste which appears on the outside of the drum/box but has not spread to the containment base or other containers), the Permittee must immediately transfer the waste from this container to a container that is in good condition or place the container in an overpack drum.

2. Any transfer of waste which was required to comply with I(C)(1), must be recorded in a separate log and maintained as part of the facilities operating record.

3. Packaging of all wastes accepted for storage in the container storage area shall meet the requirements of 49 CFR 172, 178 and 179 and all applicable D.O.T. and N.F.P.A. regulations. All containers must be marked and placarded in accordance with 49 CFR 172.

4. The Permittee shall clearly identify the contents of each container on the side of the container in accordance with 49 CFR 172 prior to placing the container in the storage area.

D. Compatibility of Waste With Containers

The Permittee must use a container made of or lined with material which will not react with and is otherwise compatible with the waste to be stored so that the ability of the container to contain the waste is not impaired. (35 IAC 724.272).

E. Management of Containers

The Permittee shall comply with the following management practices:

1. A container holding waste must always be closed during storage, except when it is necessary to add or remove or sample waste.

2. A container holding waste must not be opened, handled or stored in a manner that may rupture the container or cause it to leak.

3. The following management practices apply to arrangements of containers that contain one or more containers of D001 waste.

   a. Each arrangement of containers (pile) shall be separated from other arrangements by a five foot aisle except as allowed by 3c. The maximum volume of containers in each arrangement shall not exceed the following:

      i. 1,100 gallons for arrangements with one or more containers of waste which have a flash point below 73°F and a boiling point below 100°F.

      ii. 2,200 gallons for arrangements with one or more containers of waste having a flash point below 73°F and a boiling point at or above 100°F.

      iii. 4,400 gallons for arrangements with one or more containers of waste having a flash point at or above 73°F and below 100°F.

      iv. 8,800 gallons for arrangements with one or more containers of waste having a flash point at or above 100°F and below 140°F.

      v. 22,000 gallons for arrangements which do not contain D001 wastes.

   b. All containers containing wastes which meet the definition of combustible or flammable liquid shall be stored in the same arrangements.

   c. An aisle that is a minimum of two feet wide must be maintained within the arrangement between each row of pallets and between pallets and a wall in a pile. This is necessary to provide adequate access for the inspection of each container.

4. Containers may be stacked provided that:

   a. Only the same size or smaller containers are stacked on top of the containers beneath and

   b. Containers are separated by a pallet or other dunnage to provide stability or

   c. Stacked in a staggered fashion as shown in Exhibit 20b.

5. If containers are stacked, the distance of the containers from the edge of secondary containment structure shall equal or exceed the height of the stack. At a minimum, six feet must be provided from the stacked containers to the edge of the secondary containment along the west side of the container storage pad.

6. The containers shall be clearly marked with the date received prior to being placed into storage.

F. Inspection

The Permittee shall inspect the container storage area weekly in accordance with the inspection schedule specified in Attachment B to this Permit. The inspection must be adequate to detect leaks and deterioration of containers and the containment system caused

H. Special Requirements for Ignitable or Reactive Waste

1. The Permittee shall not accept reactive waste at the facility.

2. The Permittee shall not locate containers which hold ignitable waste within 50 feet of the facility's property line. Therefore, ignitable containers may only be stored in Row #3 through #24 of the 148.5 ft. x 57.5 ft. outdoor container storage area.

3. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable waste.

   Ignitable wastes must be separated and protected from sources of ignition or reaction including but not limited to:

   a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.

   b. While ignitable waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.

   c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable waste.

I. Special Requirements for Incompatible Waste

1. The Permittee shall not store containers holding a material that is incompatible with any waste or other materials stored nearby, unless separated from other waste/materials or protected from them by means of a dike, berm or other devices. Incompatible materials are defined in Section VIII to this permit.

J. General Operating Requirements

The Permittee shall operate the container storage area in accordance with the approved permit application, subject to the following modifications:

1. The Permittee may receive hazardous waste for storage in containers provided the following requirements are met.

   a. The material must be a waste which has been identified in Attachment A to this permit.

b. The waste must be analyzed in accordance with the approved waste analysis plan.

c. The waste must be accompanied by a properly completed Illinois manifest as required by 35 Ill. Adm. Code 723 and/or 809.

2. Cleanup of all spills inside the secondary containment areas must begin immediately upon discovery and be completed within 24 hours. Secondary containment must be inspected immediately after cleanup for cracks, gaps or other defects (failure of the coating) which would allow waste to migrate to the underlying soil. If any deterioration is discovered, the Permittee shall immediately remove all waste from the deteriorated area.

3. The Permittee shall remove any precipitation which accumulates in the secondary containment system within 24 hours of the time such accumulation is discovered.

4. Incoming wastes must be transferred from the transportation vehicle to a permitted storage unit within the first 24 hours after arrival of the waste.

K. Closure Requirements

At closure, all waste and waste residues must be removed from the containment system. Remaining containers, liners, bases and soil containing or contaminated with waste or waste residue must be decontaminated or removed. Closure of the container storage area shall be carried out in accordance with the closure plan in the Approved Permit Application, as modified below:

1. The Permittee shall notify the Illinois EPA's Division of Land Pollution Control in writing of its intent to close the container storage area at least 180 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit the sampling and analysis plan to be used in demonstrating the storage area has been properly decontaminated. This plan shall be approved by the Illinois EPA's Division of land Pollution Control in writing prior to being implemented. Illinois EPA review of this plan will be subject to te permit appeal provisions contained in Sections 39(a) and 40(a) of the Environmental Protection Act. The response from the Illinois EPA shall approve and establish:

a. The sampling plan;

b. What contaminants must be analyzed for; and

c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed, all residue adhering to the surface must be removed by scraping and/or brushing, followed by steam cleaning and triple rinsing the concrete surfaces. All wash and rinse waste shall be collected and managed as a hazardous waste. The pad must either be certified by an independent, registered, professional engineer that the surface has no cracks, gaps, or other defects which would allow waste to migrate through to the underlying soil or sampling shall be conducted to verify the underlying soil is uncontaminated.

   Sweepings and all washwater and rinsate generated during the closure of these units shall be managed as a hazardous waste, unless the Permittee can document that the waste is not hazardous as defined in 35 IAC 721.103.

3. The Permittee shall provide post-closure care in accordance with 35 IAC, Subtitle G, Part 724, for the container storage area if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care for the container storage area is required, this Permit will be modified to require post-closure care of the container storage area in accordance with 35 IAC, Subtitle G, Part 724, Subparts G and H.

4. Should post-closure care, as described in Condition K.3 above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit, within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan for the container storage area, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure of the container storage area, if required in accordance with Condition K.3 and K.4 above, shall be provided within thirty (30) days following modification of the permit under the provisions of Condition K.4 above.

6. Within sixty (60) days after closure of the container storage area is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

   The closure certification form in Attachment D to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code, Section 702.126. The independent engineer should be present at all critical,

major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for the container storage area until the Illinois EPA approves the closure certification for the unit. The Illinois EPA's review of closure certifications for partial or final closure will be conducted in accordance with 35 IAC 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes the following activities:

a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities;

b. A description of the method of waste handling and transport;

c. Copies of the waste manifests;

d. A description of the sampling and analytical methods used;

e. A chronological summary of closure activities and the cost involved;

f. Tests performed, methods and results; and

g. Color photographs of closure activities which document conditions before, during and after closure.

7. During closure, the Permittee shall obtain any necessary permits for waste disposal prior to initiating excavating activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, storage is limited to containers or tanks for less than ninety (90) days. The Permittee is prohibited from storing the excavated hazardous waste in piles because the ninety (90) days accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

8. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. The Permittee shall insure that general site workers engaged in activities that expose or potentially expose them to hazardous substances receive a minimum of 40 hours of safety and health training off site plus a minimum of

three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.

9. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 IAC 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

10. The Permittee shall analyze all samples individually (i.e., no compositing). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

SFN:MAS:bjh\96401s.doc →

Section II: Tank Systems

A. Summary

The storage tanks at the CHRSC, LLC are used for a variety of purposes, including product storage, in-process materials storage, hazardous waste storage and wastewater storage. Of these uses, the storage of hazardous wastes and wastewaters are the only uses that are regulated under RCRA. Associated with the RCRA activity are 59 existing above ground tanks. The Permittee has also proposed to develop 30 above ground tanks for storage in the future. All above ground tank areas have secondary containment consisting of a concrete vault and an impermeable membrane or coating which has been applied to the concrete.

B. Waste Identification

1. The Permittee may store a total volume of 1,157,550 gallons of waste in the tanks listed below subject to the terms of this permit.

Tank Number	Tank Farm	(N)new or (E)existing	Capacity in gallons	Minimum Shell Thickness of Tank (inches)	material of construction
T1--T4	4	E	12,500	0.06	stainless steel
T5--T6	4	E	8,000	0.06	stainless steel
T11--16, 18, 19	4	E	3,500	0.06	stainless steel
T20	4	E	1,000	0.009	stainless steel
T21	4	E	500	0.004	stainless steel
T22--T23	4	E	3,500	0.06	stainless steel
T30A,T30B	5	E	7,500	0.125	stainless steel
T31--T33	5	E	15,000	0.125	stainless steel
T34A,T34B	5	E	7,500	0.125	stainless steel
T35A,T35B	5	E	7,500	0.125	stainless steel
T36	5	E	15,000	0.125	stainless steel
T37A,T37B	5	E	7,500	0.125	stainless steel
T38	5	E	15,000	0.125	stainless steel
T39	5	E	15,000	0.125	carbon steel
T40A,T40B	5	E	7,500	0.125	carbon steel
T41A,T41B	5	E	7,500	0.125	carbon steel
T42--T45	5	E	15,000	0.125	stainless steel

Tank Number	Tank Farm	(N)new or (E)existing	Capacity in gallons	Minimum Shell Thickness of Tank (inches)	material of construction
T46A, T46B	5	E	7,500	0.125	carbon steel
T47A,T47B	5	E	7,500	0.125	carbon steel
T48A,T48B	5	E	7,500	0.125	stainless steel
T49A,T49B	5	E	7,500	0.125	stainless steel
T50	5	E	15,000	0.125	stainless steel
T51	5	E	15,000	0.125	carbon steel
T52A,T52B	5	E	7,500	0.125	carbon steel
T53A,T53B	5	E	7,500	0.125	carbon steel
T61--T70	6	N	18,500	0.06	stainless steel
T85--T94	7	N	18,500	0.06	stainless steel
T102	1	E	12,500	0.06	stainless steel
T103	1	E	12,500	0.125	stainless steel
T104	1	E	8,000	0.06	stainless steel
T115--T120	9	N	15,000	0.033	stainless steel
T170	2	E	3,500	0.06	stainless steel
T171	2	E	3,095	0.06	stainless steel
T172--T173	2	E	5,335	0.06	stainless steel
T174	2	E	4,500	0.06	stainless steel
T175	2	E	3,095	0.06	stainless steel
T176--T177	2	E	5,335	0.06	stainless steel
T178--T180	2	E	6,500	0.06	stainless steel
T182--T185	8	N	18,500	0.06	stainless steel
T194	3	E	11,835	0.125	carbon steel
T195	3	E	17,749	0.051	carbon steel

2. The Permittee may store the liquid wastes identified in Attachment A to this permit in the tanks specified above and any non-hazardous waste which is determined to be compatible with the currently stored waste in accordance with Condition VIII.A.4(b). All non-hazardous waste must be evaluated through the waste analysis plan for compatibility. The Permittee is not authorized to receive municipal waste, potentially infectious medical waste, construction, or demolition debris, asbestos waste or TSCA regulated waste.

3. Storage of waste in tanks other than those specifically identified in II(B)(1) is prohibited.

4. The Permittee is prohibited from constructing or operating additional tanks without the appropriate permit modification in accordance with 35 IAC 703, Appendix A.

C. Containment and Detection of Releases

1. The Permittee shall construct, operate, and maintain the tank system according to the detailed plans and reports contained in the approved permit application, subject to the following modifications:

   a. The Permittee shall provide the concrete slab, the curbs and the walls that are used as part of the containment, with an impermeable surface coating that:

      1) is compatible with the waste, or any other liquid, stored in the containment system and

      2) will prevent migration of the waste into the concrete of the slab or wall.

   b. The Permittee shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating.

   c. The Permittee shall install a compatible caulking or sealant at each existing joint to make the joint liquid tight. These joints include but are not limited to, all construction joints within the slab, walls and curbs and joints between the slab and curb, between two curbs, between the slab or curb and wall and joints between two walls. The caulking or sealant shall be compatible with the stored waste, or any other liquid, stored in the same containment system with the hazardous waste.

2. The Permittee shall inspect all secondary containment sumps daily and remove all liquids contained in the sumps within 24 hours.

D. General Construction Requirements

1. The Permittee is authorized to construct Tank Farms #6, #7, #8 and #9 (including all tanks, ancillary equipment and secondary containment). These tank farms may only be constructed in accordance with the approved permit application, subject to the following modifications:

a. Within thirty days after completing construction and prior to any waste being placed or stored in a tank or its corresponding ancillary equipment, the Permittee shall submit to the Illinois EPA a certification from an independent qualified, registered professional engineer. The certification must demonstrate that the tank system meets the requirements of 35 IAC 724.292 and 724.293. The certification shall contain the information described in Attachment C and the additional information listed below:

1. A report documenting the new tank system was inspected for the presence of the following items:

   i. weld breaks;
   ii. punctures;
   iii. scrapes of protective coatings;
   iv. cracks;
   v. corrosion;
   vi. other structural damage or inadequate construction/installation.

   All defects noted during this inspection must be remedied prior to covering, enclosing or placing the tank system in use;

2. A copy of the leak test performed on all of the new tanks and ancillary equipment, including a description of any repairs performed on the system to remedy the leak(s);

3. Certification that the tanks and ancillary equipment were designed and installed in a manner that is supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction; and

4. A statement that the base slab is free of cracks or gaps.

b. The Illinois EPA shall review the certification described above to ensure the tank systems and their secondary containment meets the requirements of 35 IAC 724.292 and 724.293. The Illinois EPA will respond with any comments to this certification in writing within fifteen days from the receipt of the certification. The Illinois EPA review of this certification will be subject to the permit appeal provisions contained in Section 39(a) and 40(a) of the Illinois Environmental Protection Act.

E. General Operating Requirements

1. The Permittee shall not place hazardous wastes in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

2. The Permittee shall use appropriate controls and practices to prevent spills and overflows from tank or containment systems using the methods specified in the Approved Permit Application, subject to the following modifications:

   a. All hazardous waste storage tanks shall be equipped with automatic waste feed shut-off valves connected to the continuously monitored liquid-level sensors which are activated when the tank is 95% full or;

   b. All hazardous waste storage tanks shall be equipped with audible alarms which are activated when the tank is 95% full;

   c. In situations when the high level alarm or automatic shut off system is not operational, the facility may use the manual oversight procedures outlined below, for no more than 90 days from the date the alarm or shut off system is identified as nonfunctional. If the alarm is not functioning after 90 days, the tank shall be removed from service until the alarm is repaired or is replaced. Instances of nonfunctional alarms or shut off systems and their return to service shall be noted in the operating record maintained by the facility.

      The Permittee shall insure that an observer is standing by the level indicator during the filling of tank. The observer shall monitor the tank level indicator in accordance with the procedures identified below, notify the pump operator, by voice or radio, when the tank has reached 95% capacity and direct the operator to cease pumping.

      a) The Permittee shall take inventory of the tanks prior to pumping any waste materials into the hazardous waste storage tanks to insure that adequate capacity is available to accommodate the volume of the compartment to be emptied from the tank truck. In the event the calculated volume of waste to be pumped into the storage tank will fill to beyond 90% of the tank's total capacity, the tank shall be monitored continuously during the filling process.

      b) Upon starting the pump, the operator shall observe the level indicator to make sure it functions (rises) properly.

c) Upon pumping an entire compartment into the tank, repeat the inventory procedure identified in II(E)(2)(c)(i)(1) to verify available capacity prior to pumping more waste.

d) Upon completion of loading the Permittee shall take final inventory of the tank.

3. All hazardous and non-hazardous special wastes received at the facility must be accompanied by a properly completed Illinois manifest.

4. An employee of the facility shall be present at all times when waste is being transferred from a tank truck to the receiving tank.

5. Precipitation accumulating within the tank farm shall be removed within 24 hours after the precipitation event has ended.

6. Incoming wastes must be transferred from the transportation vehicle to a permitted storage unit within 24 hours upon receipt of the waste.

7. The Permittee shall analyze each waste stream in accordance with the waste analysis procedures set forth in this permit and the approved permit application.

F. Tank System Certification

1. The Permittee shall obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system as required by 35 IAC 724.292(g).

2. The Permittee shall obtain and keep on file at the facility a written assessment of the new tank system's integrity (35 IAC 724.292(a)) as amended 7/16/87. The assessment shall be certified by an independent, qualified registered professional engineer in Illinois.

G. Response to Leaks or Spills

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit (i.e., failure of the coating) for continued use, the Permittee shall remove the system from service immediately and complete the following actions: (35 IAC 724.296(a)-(f))

1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.

2. Remove all waste as necessary from the system within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Illinois EPA and demonstrate that the longer time period is required.

   If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of 35 IAC Parts 722-724.

3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak of spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.

4. Close the system in accordance with the Closure Plan, contained in the approved Permit Application, unless the following actions are taken:

   a. For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to the service.

   b. For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service.

H. Inspections

1. The Permittee must inspect the facility in accordance with the inspection schedule in Attachment B to this Permit.

2. If a leak or spill is observed during the daily inspections, the Permittee shall immediately remove the tank system in question from service and follow the procedures set forth in 35 IAC 724.296. This includes, preventing flow or additional wastes to the tank system, removing the waste from the tank system and/or secondary containment system, containing all visible releases to the environment and notifying the Illinois EPA in accordance with Condition II(I) of this permit.

3. Precipitation accumulating in the sumps of the secondary containment system at the loading dock shall be removed within 24 hours after the precipitation event has ended.

4. Releases of hazardous waste from spills and leaks which are observed in the secondary containment system shall also be removed within the same operating shift and managed as a hazardous waste.

5. The bulk liquid unloading area shall be inspected in the following manner:

   a. The area shall be inspected for the presence of spills and releases after each truck has been unloaded. If observed, such releases shall be cleaned up immediately.

   Documentation of these inspections and any corrective actions taken shall be included in the operating record for the facility.

6. The Permittee shall inspect each tank system to assess its condition. This inspection shall consist of a visual inspection, a pressure test and an ultrasonic thickness test in accordance with the following procedures:

   a. An ultrasonic thickness test shall be conducted annually on the tank.

   b. A hydrostatic leak test or other integrity assessment as approved by the Illinois EPA shall be conducted annually on the tank ancillary equipment that are not inspected daily.

   c. A detailed visual inspection of the tank's interior shall be conducted every fifth year to ensure the tank's integrity. During this internal inspection, the internal surface shall be inspected for rust, cracks and thin areas. Corrective action as specified by a qualified registered professional engineer or corrosion technician shall be taken if the internal inspection indicates that the interior surface of a tank system has been detrimentally affected by the hazardous waste which has been stored in it. Tanks shall be entered in accordance with 29 CFR 1910.94(d)(11). The first internal inspection shall be conducted in accordance with the following schedule:

      i. Tanks in Tank Farm #1, #2 and #3 by the end of 2008.

      ii. Tanks in Tank Farm #4 by the end of 2004.

      iii. Tanks #T-30 through 41 in Tanks Farm #5 by the end of 2005.

iv. Tanks #T-42 through 53 in Tank Farm #5 by the end of 2006 and

v. new tanks shall be inspected in accordance with 724.292(b) prior to placing the tank into service and the first internal inspection shall occur five years after becoming operational.

vi. After the next scheduled internal inspection of Tanks 4, 21 and 170, the Permittee shall:

a. Conduct annual internal inspections; or
b. Provide documentation that an annual internal inspection is not necessary including a certification from an Illinois registered P.E.

d. The inspection of each tank shall be certified by a qualified, registered professional engineer, or corrosion technician.

e. Results of the inspection shall be submitted to the Division of Land Pollution Control of the Illinois EPA within 60 days of the inspection date, and shall also be included in the operating record of this facility.

f. If the results of these inspections indicate a tank system is leaking, or experiencing excessive erosion or deterioration the procedures set forth in 35 IAC 724.296 (as amended July 16, 1987) shall be followed.

g. All waste and washwater generated during evacuation of the tanks shall be managed as a hazardous waste unless the Permittee can demonstrate that the waste is not hazardous as defined in 35IAC 721.103.

I. Reporting and Recordkeeping

1. The Permittee shall report to the Illinois EPA's Division of Land Pollution Control Field Office within twenty-four (24) hours when a leak or spill occurs in the tank system or secondary containment system unless the spill or leak of hazardous waste is less than or equal to one pound in quantity and it is immediately contained and cleaned up.

2. Within thirty (30) days of detecting a release as described above to the environment from the tank system or secondary containment system, the Permittee shall report the following information in writing to the Division of Land Pollution Control of the Illinois EPA:

a. Likely route of migration of the release

b. Characteristics of surrounding soil (including soil composition, geology, hydrogeology, and climate)

c. Results of any monitoring or sampling conducted in connection with the release

d. Proximity to downgradient drinking water, surface water, and populated areas

e. Description of response actions taken or planned

3. The Permittee shall submit to the Illinois EPA all certifications of major repairs to correct leaks within seven days from returning the tank system to use. (35 IAC 724.296(f))

J. Special Requirements for Ignitable or Reactive Wastes

1. The Permittee shall not place ignitable waste in the tank system, unless the procedures specified in the Approved Permit Application are followed.

2. The Permittee shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1987).

3. The Permittee shall not place reactive waste/material in the tank systems at this facility.

K. Special Requirements For Incompatible Wastes

1. The Permittee shall not place incompatible wastes together in the same tank system. The facility shall not store waste in a tank which previously held an incompatible waste, unless the tank system has been decontaminated. Incompatible wastes are identified using the waste analysis procedures in Section VIII Condition A(4).

L. Closure

At closure, all waste and waste residues must be removed from tanks, discharge control equipment and discharge confined structures. The remaining tanks, containment systems, bases and soil containing or contaminated with waste or waste residue must be

decontaminated or removed. Closure of the tank storage area shall be carried out in accordance with the closure plan in the approved permit application, as modified below:

1. The Permittee shall notify the Illinois EPA's Division of Land Pollution Control in writing of its intent to close the tank system at least 180 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit the sampling and analysis plan to be used in demonstrating a tank system has been properly decontaminated. The plan shall be approved by the Illinois EPA's Division of Land Pollution Control in writing prior to being implemented. Illinois EPA review of this plan will be subject to the permit appeal provisions contained in Section 39(a) and 40(a) of the Illinois Environmental Protection Act. The response from the Illinois EPA shall approve and establish:

   a. The sampling plan;

   b. What contaminants must be analyzed for;

   c. The level at which decontamination is considered complete.

2. The concrete surfaces shall be visually inspected, photographed and any residue adhering to the surface must be removed by scraping and/or brushing. Following this, the concrete surfaces must be steam cleaned and triple rinsed. All wash and rinse water shall be collected. For tank systems which include secondary containment systems which met the requirements of 35 IAC 724.293 at the time of installation, the secondary containment must be certified by an independent, registered, professional engineer indicating that the surface has no cracks, gaps or other defects which would allow waste to migrate through to the underlying soil. If such a certification cannot be made, soil sampling and analysis must be conducted to establish clean closure.

   Sweepings and all washwater and rinsate generated during the closure of these units shall be managed as a hazardous waste, unless the Permittee can document that the waste is not hazardous waste defined in 35 IAC 721.103.

3. The Permittee shall provide post-closure care in accordance with 35 IAC Part 724 for a tank system if all of the hazardous wastes or contaminated soils cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in this permit and in the approved closure plan. If it is determined that the closure requirements cannot be met and post-closure care is required, the tank system shall be considered to be a landfill and the post-closure care plan in the approved application will be modified as required to provide adequate post-closure care for the affected tank system(s) in accordance with 35 IAC, Subtitle G, Part 724, Subparts G and H.

4. Should post-closure care, as described in Condition 3 above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure plan and post-closure care plan for the affected tank system within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made not to pursue clean closure prior to the implementation of the closure plan for the tank system, the modification request shall be made no later than sixty (60) days after the determination is made.

5. Financial assurance for closure and post-closure of any tank system being closed as a landfill, when required in accordance with Conditions 3 and 4 above, shall be updated within thirty (30) days following modification of the permit under the provisions of Condition 4 above.

6. Within sixty (60) days after closure of any tank system is complete, the Permittee shall submit certification to the Illinois EPA that the unit has been closed in accordance with the approved closure plan.

   The closure certification form in Attachment F to this permit or a certification with identical wording must be used. Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The independent engineer should be present at all critical, major points (activities) during the closure. This might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the independent engineer must be sufficient to determine the adequacy of each critical activity. Financial assurance must be maintained for each tank system identified in Condition B.1 above. Documents regarding financial assurance for closure of this facility may be modified after the Illinois EPA approves the closure certification for any or all of the tank systems. The Illinois EPA's review of closure certifications for partial or final closure will be reviewed in accordance with 35 IAC 724.243.

   A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

   a. The volume of waste and waste residue removed, including wastes generated during decontamination procedures.

   b. A description of the method of waste handling and transport.

   c. Copies of the waste manifests.

   d. A description of the sampling and analytical methods used.

e. A chronological summary of closure activities and the cost involved.

f. Tests performed, methods and results.

g. Color photographs of closure activities which document conditions before, during and after closure.

7. During closure, the Permittee shall obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, storage shall be limited to containers or tanks for less than ninety (90) days. The Permittee is prohibited from storing the excavated hazardous waste in piles because the ninety (90) day accumulation time exemption (35 IAC 722.134) only applies to containers and tanks.

8. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. The Permittee shall insure that general site workers engaged in activities that expose or potentially expose them to hazardous substances receive a minimum of 40 hours of safety and health training off-site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor; and managers and supervisors at the cleanup site have at least an additional eight hours of specialized training on managing hazardous waste operations.

9. If the Illinois EPA determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Illinois EPA reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

10. The Permittee shall analyze all samples individually (i.e., no composting). Sampling and analytical procedures shall be conducted in accordance with the latest edition of SW-846 and Attachment G to the Illinois EPA's closure plan instruction package. Sample size per interval shall be minimized to prevent dilution of any contamination. Apparent visually contaminated material within a sampling interval shall be included in the sample portion of the interval to be analyzed. To demonstrate a parameter is not present in a sample, analysis results must show a detection limit at least as low as the PQL for that parameter as identified in the latest edition of SW-846.

Section III: Reporting and Notification Requirements

The reporting and notification requirements of each section of the RCRA permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this permit.

Condition	Submittal	Due Date
SECTION I: CONTAINERS		
K(1)	Notify Illinois EPA of intent to close the container storage area	180 days prior to commencement of closure
K(1)	Submit sampling and analysis plan for review	180 days prior to commence of closure
K(4)	Submit application for modification of permit and post-closure care plan	No later than 30 after determination that the container storage area cannot be clean closed
K(5)	Update financial assurance to include modification in Conditions I(K)(4) or I(K)(5)	30 days after permit is modified
K(6)	Submit certification for closure of the container storage area	Within 60 days after closure is completed
SECTION II: TANK SYSTEMS		
D(1)(a)	Submit certification and report for Tank Farms #6, #7, #8 and #9 as required by 35 IAC 724.292 and 724.293	30 days after completing the construction of the tank systems
H(6)(f)	Results of tank integrity assessment	60 days after inspection

I(1)	Notify Illinois EPA of a leak or spill unless the spill or leak of hazardous waste is less than or equal to one pound and it is immediately contained and cleaned up.	24 hours after leak or spill occurs
I(2)	Report to Illinois EPA on release and Permittee's response	30 days after leak or spill occurs
I(3)	Certification of major repairs	Within seven days from returning tank system to service
L(1)	Notify Illinois EPA of intent to close tank system(s)	180 days prior to commencement of closure
L(1)	Submit sampling and analysis plan	180 days prior to commencement of closure
L(4)	Submit application for permit modification and post-closure care plan	30 days after determination that a tank system must be closed as a landfill
L(5)	Financial Assurance for closure or post-closure	30 days after effective date of permit or modification of permit
L(6)	Submit certification of closure of tank system(s)	60 days after closure of tank system(s) is complete

SECTION IV: CORRECTIVE ACTION

E(1)	Notify Illinois EPA of any newly-identified SWMU(s)	no later than 30 days after discovery
E(3)	Submit a SWMU Assessment Plan	within 60 calendar days after receipt of the Agency's request
F	Notify Illinois EPA of any release	within 30 days of discovering a release from a SWMU

SECTION V: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

G	Before using the Alternative Percentage Standards for Values or the Skip Period Alternative for Values	Notify in writing before implementing
G	Submit a semi-annual report as required by 35 IAC 724.965	by the last day of March and September of each year

SECTION VI: AIR EMISSION STANDARDS FOR CONTAINERS AND TANKS

C(1)	Notify in noncompliance with the conditions in 35 IAC 724.984(b)	A written request within 15 calendar days of the time that the Permittee becomes aware of the occurrence by the last day of March and September of each year
C(2)(a)	Submit a semiannual written report for control devices used in accordance with 35 IAC 724.987	by the last day of March and September of each year

SECTION VII: STANDARD CONDITIONS

6	Complete application for new permit	180 days prior to permit expiration
11	Information requested by Illinois EPA and copies of records required to be kept by this permit	Submittal date to be determined by Illinois EPA
14	Notify Illinois EPA of planned physical alterations or additions	15 days prior to planned change
15	Notify Illinois EPA of changes which may result in permit noncompliance	Within 15 days of change

16	Application for permit modification indicating permit is to be transferred	At least 90 days prior to transfer date
18	Submission of any information required in a compliance schedule	14 days after each schedule date
19	Report to Illinois EPA any non-compliance which may endanger health or environment	
	by telephone	24 hours after discovery
	in writing	5 days after discovery
20	Report all other instances of noncompliance	March 1 of each year along with Annual Report
27	Notify the Regional Administrative in writing of expected receipt of hazardous waste from a foreign source	4 weeks prior to receipt of waste
39	Update arrangements with local authorities	At a least annually
40	Implementation of Contingency Plan	
	Notify appropriate state and local agencies with designated response roles	As needed
	Notify appropriate local officials	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable
	Notify the Illinois EPA (217/782-3637) or Illinois ESDA (217/782-7860) if emergency coordinator determines there has been a release, fire or explosion which could threaten	Immediately after determination made

	human health or the environment, outside the facility	
	Notify Illinois EPA and appropriate state and local authorities, in writing that facility is in compliance with 35 IAC 724.156(h)	Prior to resuming operation in affected areas
	Report to Illinois EPA details regarding incident which required implementation of contingency plan	15 days after event
46	Submit annual report required by 35 IAC 724.175	March 1 of each year
48	Application for permit modification amending closure plan	Within 90 days of discovery of need for modification
49	Notify Illinois EPA that expecting to close	180 days prior to beginning closure
53(a)	Adjust closure cost estimate for inflation	30 days after anniversary date
53(b)	Revision of closure cost estimate	As needed, within 90 days of discovery of revision
54	Change in financial assurance mechanism for closure	As needed
55	Change in coverage for sudden and non-sudden accidental occurrences	As needed
56	Notify Illinois EPA of commencement of voluntary or involuntary bankruptcy proceedings	10 days after commencement of proceeding

SECTION VIII: ADDITIONAL SPECIAL CONDITIONS

A(2)b	Notify Illinois EPA in writing of manifest discrepancy	Within 15 days of discovery and failure to resolve
C(1)	submit closure plan	180 days prior to closure of any hazardous waste management unit
F(2)	Notify Emergency Response Teams	Immediately upon implementation of contingency plan
F(2)	Notify Des Plaines Office	Within 24 hours

SFN:MAS:bjh\96401s.doc

CLEAN HARBORS RECYCLING SERVICES OF CHICAGO, LLC
SECTION IV
CORRECTIVE ACTION

A. INTRODUCTION

1. In accordance with Section 3004(u) and (v) of RCRA and 35 IAC 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) at its facility in Chicago, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.

2. The original RCRA permit for this facility was issued by Illinois EPA on September 30, 1992; Section IV of this permit contained corrective action requirements. The Permittee has completed all of the corrective action requirements of this initial permit for the SWMUs of concern at the facility.

3. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.

4. The requirements of 35 Ill. Adm. Code 742 must be met, when applicable, in establishing remediation objectives for corrective action.

B. CORRECTIVE ACTION EFFORTS COMPLETED TO DATE

1. On September 30, 1992, Illinois EPA issued a RCRA permit for operation of the Subject facility. Section IV of this permit contained conditions for the corrective action program to be implemented at this facility. The SWMUs of concern were:

   a. Area north of Container Storage Area #1

   b. Area north of Tank Farm #2 and Tank Farm #3

   A drawing showing the location of these units within the facility is provided in Attachment E to this permit.

2. On September 23, 1993, Illinois EPA approved an RFI Phase I Workplan to Investigate soil and groundwater at the facility. This approval letter also allowed CHRSC, LLC to

integrate closure of Tanks T-190 through T-193 (Tank Farm No. 3) into the corrective action process. An interim status closure plan for these units was initially approved by IEPA on August 23, 1990 (Log No. C-541) and was modified on August 30, 1991 (Log No. C-541-M-1). A drawing showing the location of Tank Farm No. 3 within the subject facility is provided as Attachment E to this permit.

3. On December 20, 1993, Illinois EPA approved minor modifications to the RFI Phase I groundwater monitoring efforts.

4. On May 16, 1994, Illinois EPA approved a document, which discussed field activities that had been completed during the first quarter of the Phase I RFI.

5. On September 30, 1994, Illinois EPA approved the RFI Phase I report and required development of a Phase II workplan.

6. On July 5, 1995, Illinois EPA approved an RFI Phase II workplan for soil and groundwater investigation efforts.

7. On June 17, 1996, Illinois EPA approved a Technical Memorandum, which contained the results of the first part of the Phase II soil and groundwater investigation efforts.

8. On May 6, 1998, Illinois EPA approved a request to abandon monitoring wells MW4 and MW5 installed during Phase I of the RFI.

9. On February 8, 1999 Illinois EPA approved the RFI Phase II report and determined no further action was necessary for the soils at the 2 SWMUs of concern. This letter also required that:

   a. Further groundwater monitoring was necessary for the facility and that the Groundwater quality at the site should be evaluated using TACO.

   b. The facility submit a plan to resume closure efforts for Tank Farm No. 3. Closure efforts for this unit had been delayed until the RFI had been completed to allow for a coordinated remediation effort for this unit and the other SWMUs of concern at the facility.

10. On December 27, 1999, Illinois EPA approved a document entitled Phase I Corrective Measures Plan-Site Groundwater Partial Closure Soil Sampling Plan-Former Tank Farm No. 3. This letter approved a soil investigation plan for Tank Farm No. 3 and contained a groundwater monitoring program. In addition, this letter required that the following be submitted for review and approval:

a. The results of the approved soil and groundwater investigation;

b. A summary of all investigative results for Tank Farm No. 3 and the groundwater beneath the facility;

c. Proposed remediation objectives for the area still of concern;

d. Additional information in support of an evaluation of the groundwater at the beneath being conducted under 35 Ill. Adm. Code 742;

e. A plan for completing corrective action for the area still of concern.

11. On January 8, 2001, Illinois EPA approved a document entitled "Phase I Corrective Measures for Site Groundwater and Partial Closure Soil Sampling for Tank Farm No. 3." This letter:

a. Approved a proposed corrective action effort for soils at Tank Farm No. 3 (removal of some contaminated soil, establishment of an engineered barrier and associated institutional control to restrict exposure to the remaining soils, properly address the groundwater exposure route under TACO);

b. Indicated that the groundwater exposure route could be eliminated once the following was submitted and approved by Illinois EPA:

(1) a report documenting completion of corrective action of the soils at Tank Farm 3;

(2) information demonstrating that the requirements of 35 Ill. Adm. Code 742.320(a) have been met concerning the soil saturation limits and the soil attenuation capacities; and

(3) information demonstrating that the TACO requirements relative to the use of an ordinance as an institutional control have been met.

c. Set forth a groundwater monitoring program to be implemented at the facility.

12. On March 23, 2001, Illinois EPA approved a soil sampling/analysis plan to better characterize the extent of soil contamination at Tank Farm No. # 3. Once the results of the approved sampling/analysis effort is complete, CHRSC, LLC was to continue with the soil remediation effort approved by Illinois EPA's January 8, 2001 letter.

13. On December 3, 2002, Illinois EPA approved an April 18, 2002 submittal and a document entitled "RCRA Corrective Action and Partial RCRA Closure Design Report for Tank Farm No. 3". This letter:

    a. Approved a proposed ELUC as it relates to an engineered barrier over Tank Farm No. 3.

    b. Required CHRSC, LLC to excavate inside the dike of Tank Farm No. 3 to remove the highest levels of contamination. This includes soil that exceeds the soil saturation limit and the soil attenuation capacity. An engineered barrier was then to be established over this area.

    c. Established the requirements for continuing to carry out a groundwater monitoring program.

    d. Established the requirements for properly establishing the groundwater exposure route.

    e. Required that a report be submitted documenting the completion of the approved efforts and describing the efforts which must still be carried out to complete corrective action responsibilities at this facility.

14. On March 12, 2004, Illinois EPA determined that no further action was necessary for: (1) corrective action of the Area North of Container Storage Area #1 and the Area North of Tank Farms 2 and 3; and (2) closure of Tank Farm 3.

15. On June 14, 2004, CHRSC, LLC submitted to the Illinois EPA well sealing forms documenting abandonment of all facility monitoring wells.

C. CURRENT STATUS OF CORRECTIVE ACTION

As indicated above, the Permittee has completed all corrective action requirements of its original RCRA permit. The following restrictions have been established at this facility as part of these efforts:

1. The CHRSC, LLC facility located at 1445 W. 42nd in Chicago, Illinois (PIN 20-05-112-001, 20-05-112-008, 20-05-112-009, 20-05-112-013, 20-05-108-005, 20-05-108-006, 20-05-108-007, and 20-05-108-009) is subject to an Environmental Land Use Control recorded with the Cook County Recorder of Deeds on January 14, 2004 as Document Number 0401503041. This ELUC shall apply in perpetuity to the facility

and shall not be released until: (1) Illinois EPA determines that there is no longer a need for this ELUC; (2) Illinois EPA, upon written request from the property owner and in accordance with 35 Ill. Adm. Code 742.1010, issues an amended certification of closure or a permit modification approving modification/elimination of the ELUC requirements; and (3) a release or modification of the ELUC is filed on the chain of title for the Property.

2. The ELUC referenced in Condition C.1 above places the following restrictions on the subject property:

   a. The property must be limited to industrial/commercial use in the future.

   b. An engineered barrier must be maintained over contaminated soil present beneath a portion of the facility as shown on the site layout map contained in Attachment E to this permit. Construction/excavation efforts conducted in the soil beneath the barrier must be carried out in accordance with a health and safety plan meeting the requirements of 29 CFR. Any soil removed from beneath the barrier must be managed as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.

   c. All groundwater located beneath the site cannot/will not be used as a potable supply of water.

3. Failure to comply with the limitations or requirements of an ELUC may result in voidance of an Agency no further action determination in accordance with the program under which the determination was made. The failure to comply with the limitations or requirements of an ELUC may also be grounds for an enforcement action pursuant to Title VIII of the Illinois Environmental Protection Act.

4. At no time shall this site be used in a manner inconsistent with the land use limitations established in the ELUC identified in Condition C.1 above, unless: (1) attainment of objectives appropriate for the new land use is achieved, and (2) a new no further action determination is obtained from Illinois EPA and subsequently recorded in accordance with 35 Ill. Adm. Code 742.

   a. Requests to release or modify an ELUC must be formally requested in writing from Illinois EPA as a: (1) request to amend the certification of closure; or (2) a permit modification request. Sufficient information must be provided in these requests to demonstrate that the requested change meets all the requirements of 35 Ill. Adm. Code 742.

b. Any final approval by Illinois EPA of a request to release or modify an ELUC must be filed with the chain of title for the subject facility.

D. FINANCIAL ASSURANCE FOR CORRECTIVE ACTION

1. The Permittee shall prepare a cost estimate for the completion of any corrective action required under Conditions IV.E or IV.F or this permit, in order to provide financial assurance for completion of corrective action, as required under 35 IAC 724.201(b). Such a cost estimate will be based upon the cost of contamination investigations and assessments for the SWMU(s), and design, construction, operation, inspection, monitoring, and maintenance of the corrective measure(s) to meet the requirements of 35 IAC 724.201 and this permit. This cost estimate must be included in each workplan or report submitted to Illinois EPA.

2. The Permittee shall demonstrate continuous compliance with 35 IAC 724.201 by providing documentation of financial assurance using a mechanism specified in 35 IAC 724.243, in at least the amount of the cost estimate required under Condition IV.D.2. The words "completion of corrective action" shall be substituted for "closure and/or post-closure", as appropriate in the financial instrument specified in 35 IAC 724.251. This documentation shall be submitted to the Agency's DLPC within 60 days after the Agency's approval of the initial or revised cost estimates required under Condition IV.D.1. The Agency's DLPC may accept financial assurance for completion of corrective action in combination with another financial mechanism that acceptable under 35 IAC 724.246 at its discretion.

E. REQUIREMENTS FOR ADDRESSING NEWLY- IDENTIFIED SWMU(s)

1. The Permittee shall notify the Agency's DLPC in writing of any newly-identified SWMU(s) discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:

a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;

b. The type and past and present function of the unit;

c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);

d. The period during which the unit was operated;

e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and

f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.

2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU, the Agency's DLPC may request in writing, that the Permittee prepare a Solid Waste Management Unit (SWMU) Assessment Plan and a proposed schedule of implementation and completion of the Plan for any additional SWMU(s) discovered subsequent to the issuance of this Permit. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment. Additional guidance regarding the contents of this plan will be provided along with the written request for submittal of a SWMU Assessment Plan.

3. Within 60 calendar days after receipt of the Agency's DLPC request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan.

4. After the Permittee submits the SWMU Assessment Plan, the Agency's DLPC shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Agency's DLPC shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.

5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Agency's DLPC in accordance with the schedule in the

approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.

6. The Permittee must implement a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time Illinois EPA notifies the Permittee of the need for such a program.

7. All workplans submitted to Illinois EPA must contain a detailed estimate of the cost of the efforts needed to carry out the proposed activities; this estimate must be developed in accordance with Condition IV.D.1 above. Once these cost estimates are approved, appropriate financial assurance must be established in accordance with Condition IV.D.2 above.

8. Overall efforts for these activities must meet the requirements of 35 Ill. Adm. Code 724.201 and 742.

F. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Agency must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition IV.E.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection IV.E above, including the requirements for cost estimates and financial assurance. The results of all corrective action efforts required by this condition must meet the requirements of 35 Ill. Adm. Code 724.201.

SFN:MAS:bjh\96401s.doc

SECTION V
AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

A. IDENTIFICATION OF REGULATED DEVICES

The Permittee shall mark each piece of equipment to which Subpart BB applies in such a manner that it can be distinguished readily from other pieces of equipment.

B. LIGHT LIQUID SERVICE PUMPS

1. The Permittee shall monitor each pump in light liquid services subject to Subpart BB as specified below:

   a. Conduct monthly monitoring to detect leaks as required by 35 Ill. Adm. Code 724.963(b) and described in the approved permit application.

   b. Perform visual inspections each calendar week for indications of liquids dripping from the pump seal.

2. The Permittee shall repair all pumps in light liquid service that are Subject to Subpart BB in accordance with the following:

   a. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the Permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

   b. A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

   c. A leak is detected from pumps in light liquid service if:

      i. an instrument reading of 10,000 ppm or greater is measured, or

      ii. there are indications of liquids dripping from the pump seal

C. VALVES

1. The Permittee shall monitor each valve in gas-vapor or light liquid service that is subject to Subpart BB monthly. Monitoring must be adequate to detect leaks by the methods specified in Section 724.963(b). The Permittee shall implement procedures for leaks as described in the approved permit application when an instrument reading of 10,000 ppm or greater is measured.

2. The Permittee shall monitored and repair each valve in gas-vapor or light liquid service that is subject to Subpart BB in accordance with the following procedures:

   a. Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

   b. If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months.

   c. When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. In the event more time is required, the Permittee must submit a written explanation to the Illinois EPA. Such requests should be made in writing to the Bureau of Land's Field Operation Section within 10 calendar days of the leak detection.

   d. A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

3. The Permittee shall make first attempts at repair which include, but are not limited to the following best practices when practicable:

   a. Tightening of bonnet bolts.

   b. Replacement of bonnet bolts.

   c. Tightening of packing gland nuts.

   d. Injection of lubricant into lubricated packing.

D. RECORD KEEPING

1. The Permittee shall record the following information in the facility operating record:

   a. For each piece of equipment to which Subpart BB applies:

      i. Equipment identification number and hazardous waste management unit identification.

      ii. Approximate locations within the facility (e.g. gas-vapor or liquid).

      iii. Type of equipment (e.g. a pump or pipeline valve).

      iv. Percent-by-weight total organics in the hazardous wastestream at the equipment.

      v. Hazardous waste state at the equipment (e.g., gas-vapor or liquid).

      vi. Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

      vii. P&ID of the hazardous waste management unit that includes the BB equipment.

   b. Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4) and Section 724.935(b)(4) and the approved permit application.

2. When each leak is detected as specified in Section 724.952, 724.953, 724.957 or 724.958, the Permittee shall comply with the following requirements.

   a. A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.

   b. The identification on all equipment except valves required by Condition V.D(2)(b) above, except valves, may be removed after it has been repaired.

c. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 724.957(c) and no leak has been detected during those 2 months.

3. When each leak is detected as specified in Section 724.952, 724.953, 724.957 or 724.958, the Permittee shall record the following information in an inspection log which must be kept in the facility operating record:

a. The instrument and operator identification numbers and the equipment identification number.

b. The date evidence of a potential leak was found in accordance with Section 724.958(a).

c. The date the leak was detected and the dates of each attempt to repair the leak.

d. Repair methods applied in each attempt to repair the leak.

e. "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

f. "Repair delayed" and the reason for the delay if a leak is not required with 15 calendar days after discovery of the leak.

g. A detailed description of the reasons that repair could not be effected without a hazardous waste management unit shutdown and the expected date of successful repair of the leak. If the leak is repaired within 15 calendar days, signed and certified by the facility operator in accordance with the procedures in 35 Ill. Adm. Code 702.126.

h. The date of successful repair of the leak.

4. The Permittee shall record design documentation on monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960. The information shall be kept-up-to-date in the facility operating record as specified in Section 724.935(d)(1) and (2), and monitoring, operating and inspection information in Section 724.935(c)(3)(through (8).

5. The Permittee shall record information pertaining to all equipment subject to the requirements of Subpart BB. The following information shall be kept in a log as part of the facility operating record:

   a. A list of identification numbers for equipment (except welding fittings) subject to the requirements of Subpart BB.

   b. Compliance testing information including copies of:

      i. The dates of each required compliance test.

      ii. The background level measured during each compliance test.

      iii. The maximum instrument reading measured at the equipment during each compliance test.

      iv. A list of identification numbers for equipment in vacuum service.

E. LIGHT LIQUID PUMPS

For each pump subject to Section 724.952, the Permittee shall record the following information in a log that is kept in the facility operating record:

1) Criteria required in Section 72.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.

2) Any changes in these criteria and the reasons for the changes.

F. REPORTING REQUIREMENTS

1. The Permittee shall notify the Agency's Bureau of Land's Field Section in writing before implementing the Alternative Percentage Standards for Valves or the Skip Period Alternative for Valves. The request for the Alternate Percentage Standards for Valves should include a performance test in accordance with 35 Ill. Adm. Code 724.961(c).

2. The Permittee must submit a semi-annual report to the Agency by the last day of March and September of each year. The report must include the following information:

a. The USEPA and Illinois EPA identification numbers (35 Ill. Adm. Code 722.112), name, and address of the facility.

b. For each month during the semi-annual reporting period:

   i. The equipment identification number of each valve for which a leak was not repaired as required in Section 724.957(d).

   ii. The equipment identification number of each pump for which a leak was not repaired as required in Section 724.952(c) and (d)(6).

   iii. The equipment identification number of each compressor for which a leak was not repaired as required in Section 724.953(g).

c. Dates of hazardous waste management unit shutdowns that occurred with the semi-annual reporting period.

d. For each month during the semi-annual reporting period, dates when the control device installed as required by Sections 724.952, 724.953, 724.954 or 724.955, exceeded or operated outside of the design specifications as defined in Section 724.964(e) and as indicated by the control device monitoring required by Section 724.960 and was not corrected within 24 hours, the duration and cause of each exceedence, and any corrective measures taken.

If during the semi-annual reporting period, leaks from valves, pumps and compressors are repaired as required in Sections 724.957(d), 724.952(c) and (d)(6) and 724.953(g), respectively, and the control device does not exceed or operate outside of the design specifications as defined in Section 724.964(e) for more than 24 hours, a report to the Agency is not required.

The report shall be sent to the following address:

Illinois EPA
BOL – Permit Section #33
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

SFN:MAS:bjh\96401s.doc

SECTION VI
AIR EMISSION STANDARDS FOR CONTAINERS AND TANKS

A. CONTAINERS

1. Whenever hazardous waste is in a container using Container Level 1 or 2 controls, the Permittee shall install all covers and closure devices for the container and secure and maintain each closure device in closed position except:

   a. Opening of a closure device or cover for a container is allowed for the purposes of adding/removing hazardous waste or material as follows:

      i. In the case where the container is filled to the intended final level in one continuous operation, the Permittee shall promptly secure the closure devices in the closed position and install the covers upon conclusion of the filling operation.

      ii. In the case where discrete quantities or batches of material intermittently are added to the container over a period of time, the Permittee shall promptly secure the closure devices in the closed position and install covers upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.

      iii. An empty container, as defined in 35 Ill. Adm. Code 721.107(b), may be open to the atmosphere at any time.

      iv. In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 35 Ill. Adm. Code 721.107(b), the Permittee shall promptly secure the closure devices in the closed position and install covers upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

b. Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste.

c. Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications.

d. Opening of a safety device is allowed at any time conditions require doing so to avoid an unsafe condition.

2. The Permittee shall inspect the containers and their covers and closure devices as follows:

a. In the case when a hazardous waste already is in the container at the time the Permittee first accepts possession of the container at the facility and the container in not emptied within 24 hours after the container is accepted at the facility, the Permittee shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility.

b. In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the Permittee shall visually inspect the container and its cover and closure device initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position.

c. When a defect is detected for the container, cover, or closure devices, the Permittee shall make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible butt no later than five calendar days after detection. If repair cannot be completed with five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

3. Level 3 Containers

The Permittee shall inspect and monitor the closed-vent systems and control devices as specified in 35 Ill. Adm. Code 724.987.

B. TANKS

1. The Permittee shall operate each tank identified in condition II.B.1 with each closure device secured in the closed position except to provide access to the tank for performing routine inspections and maintenance, to maintain the tank internal pressure in accordance with the tank design specifications, or for the opening of a safety device to avoid an unsafe condition.

   For each tank identified in condition II.B.1 the Permittee shall inspect air emission control equipment in accordance with the following:

   a. The fixed roof and its closure devices must be visually inspected to check for defects that could result in air pollution emissions.

   b. An initial inspection of the fixed roof and its closure devices must be performed on or before the date that the tank becomes subject to Subpart CC. Thereafter, the Permittee shall perform the inspections at least once every year.

   c. In the event a defect in the air emission control equipment is detected, the Permittee shall repair the defect in accordance with condition VI.B.4.

   d. The Permittee shall maintain a record of the inspection in accordance with 35 Ill. Adm. Code 724.989(b).

2. Whenever a waste is in the tank, the Permittee shall not operate the fixed roof tanks identified in condition II.B.1 unless each closure device has been secured in the closed position and the vapor headspace underneath the fixed roof has been vented to the control device except as follows:

   a. provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

   b. remove accumulated sludge or other residue from the bottom of a tank.

c. open a safety device to avoid an unsafe condition.

The Permittee shall inspect and monitor the air emission control equipment in accordance with the following procedure:

a. The fixed roof and its closure devices must be visually inspected by the Permittee to check for defects that could result in air pollutant emissions.

b. The closed vent system and control device must be inspected and monitored by the Permittee in accordance with the procedures specified in 35 Ill. Adm. Code 724.987.

c. The Permittee shall perform an initial inspection of the air emission control equipment on or before the date that the tank becomes subject to Subpart CC. Thereafter, the Permittee shall perform the inspections at least once every year except for the special conditions provided for in 35 Ill. Adm. Code 724.984(l).

d. In the event a defect is detected, the Permittee shall repair the defect in accordance with the requirements of condition VI.B.4.

e. The Permittee shall maintain a record of the inspection in accordance with the requirements specified in 35 Ill. Adm. Code 724.989.

3. For pressure tanks

Whenever a hazardous waste is in the tank, the Permittee must operate the tank as a closed system that does not vent to the atmosphere except in the event that a safety device is required to open to avoid an unsafe condition.

4. Repair Condition

The Permittee shall repair each defect detected during an inspection as follows:

a. The Permittee shall make first efforts at repair of the defect no later than five calendar days after detection, and repair must be completed as soon as possible but no later than 45 calendar days after a detection.

b. Repair of a defect may be delayed beyond 45 calendar days if the Permittee determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank

capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the Permittee shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect must be completed before the process or unit resumes operation.

C. REPORTING REQUIREMENTS

1. For tanks and miscellaneous units using air emission control device

The Permittee shall report to the Agency each occurrence when hazardous waste is managed in the unit in noncompliance with the conditions specified in 35 Ill. Adm. Code 724.984(b). The Permittee shall submit a written report within 15 calendar days of the time that the Permittee becomes aware of the occurrence. The written report shall contain the USEPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report shall be signed and dated by an authorized representative of the Permittee.

2. For control devices in 724.987

a. The Permittee shall submit a semiannual written report to the Agency for control devices used in accordance with 35 Ill. Adm. Code 724.987, except as provided condition (b) below. The report shall describe each occurrence during the previous 6-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in 35 Ill. Adm. Code 724.935(c)(4) or a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in 35 Ill. Adm. Code 724.933(d). The written report shall include the USEPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report shall be signed and dated by an authorized representative of the Permittee.

b. A report to the Agency is not required for a 6-month period during which all control devices subject to Subpart CC are operated by the Permittee so that both of the following conditions result: during no period of 24 hours or longer did a control device operate continuously in noncompliance with

the applicable operating values defined in Section 724.935(c)(4) and no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d).

SFN:MAS:bjh\96401s.doc

Section VII: STANDARD CONDITIONS

GENERAL REQUIREMENTS

1. EFFECT OF PERMIT. The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 IAC 702.181)

2. PERMIT ACTIONS. This permit may be modified, reissued or revoked for cause as specified in 35 IAC 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or revocation, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. (35 IAC 702.146)

3. SEVERABILITY. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 IAC 700.107)

4. PERMIT CONDITION CONFLICT. In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 IAC 702.160)

5. DUTY TO COMPLY. The Permittee shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 IAC 702.141 and 703.242)

6. DUTY TO REAPPLY. If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 IAC 702.142 and 703.125)

7. PERMIT EXPIRATION. This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application (see 35 IAC 703.181-703.209) and through no fault of the Permittee the Illinois EPA has not issued a new permit as set forth in 35 IAC 702.125.

8. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 IAC 702.143)

9. DUTY TO MITIGATE. In the event of noncompliance with the permit, the Permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. (35 IAC 702.144)

10. PROPER OPERATION AND MAINTENANCE. The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 IAC 702.145)

11. DUTY TO PROVIDE INFORMATION. The Permittee shall furnish to the Illinois EPA, within a reasonable time, any relevant information which the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Illinois EPA, upon request, copies of records required to be kept by this permit. (35 IAC 702.148)

12. INSPECTION AND ENTRY. The Permittee shall allow an authorized representative of the Illinois EPA, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location. (35 IAC 702.149)

13. MONITORING AND RECORDS. (35 IAC 702.150)

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 IAC 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.

b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The Permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

c. Records of monitoring information shall include:

i. The date(s), exact place, and time of sampling or measurements;

ii. The individual(s) who performed the sampling or measurements;

iii. The date(s) analyses were performed;

iv. The individual(s) who performed the analyses;

v. The analytical technique(s) or method(s) used; and

vi. The result(s) of such analyses. (35 IAC 702.150)

14. REPORTING PLANNED CHANGES. The Permittee shall give notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. For a new HWM facility, the Permittee may not commence treatment, storage or disposal of

hazardous waste; and for a facility being modified the Permittee may not treat, store or dispose of hazardous waste in the modified portion of the facility, until:

a. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

b.

1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or

2. If, within 15 days of the date of submission of the letter in paragraph (a), the Permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the Permittee may commence treatment, storage or disposal of hazardous waste. (35 IAC 703.244 and 702.152(a))

15. ANTICIPATED NONCOMPLIANCE. The Permittee shall give advance notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the Permittee shall not treat, store or dispose of hazardous waste; and for a facility being modified, the Permittee shall not treat, store or dispose of hazardous waste in the modification portion of the facility, except as provided in Section 703.280, until:

i. The Permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

ii. Either:

a. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or

b. Within 15 days after the date submission of the letter in section i above, the Permittee has not received notice from the Illinois EPA of its intent to inspect, the Permittee may commence treatment, storage or disposal of hazardous waste.

(35 IAC 702.152(b) and 703.247)

16. TRANSFER OF PERMITS. This permit is not transferable to any person except after notice to the Illinois EPA. The Illinois EPA may require modification of the permit to change the

name of the Permittee and incorporate such other requirements as may be necessary under the appropriate Act. (See Sections 703.260 and 703.270, in some cases modification is mandatory.) (35 IAC 702.152(c))

17. MONITORING REPORTS. Monitoring results shall be reported at the intervals specified in the permit. (35 IAC 702.152(d))

18. COMPLIANCE SCHEDULES. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than specified in 35 IAC 702.162. (35 IAC 702.152(e))

19. TWENTY-FOUR HOUR REPORTING.

    a. The Permittee shall report to the Illinois EPA any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:

        i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.

        ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.

    b. The description of the occurrence and its cause shall include:

        i. Name, address, and telephone number of the owner or operator;

        ii. Name, address, and telephone number of the facility;

        iii. Date, time, and type of incident;

        iv. Name and quantity of material(s) involved;

        v. The extent of injuries, if any;

        vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and

vii. Estimated quantity and disposition of recovered material that resulted from the incident.

c. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Illinois EPA may waive the five day written notice requirement in favor of a written report within fifteen days. (35 IAC 702.152(f) and 703.245(b))

20. OTHER NONCOMPLIANCE. The Permittee shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 17, 18, and 19, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 19. (35 IAC 702.152(g))

21. OTHER INFORMATION. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 IAC 702.152(h))

22. REPORTING REQUIREMENTS. The following reports required by 35 Ill. Adm. Code 724 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):

a. Manifest discrepancy report: if a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the Permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 IAC 724.172(b))

b. Unmanifested waste report: The Permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 IAC 724.176)

c. Annual report: an annual report must be submitted covering facility activities during the previous calendar year. (35 IAC 724.175)

23. SUBMITTAL OF REPORTS OR OTHER INFORMATION. All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

    Illinois Environmental Protection Agency
    Division of Land Pollution Control #33
    Planning and Reporting Section
    1021 North Grand Avenue East
    Post Office Box 19276
    Springfield, Illinois 62794-9276

24. SIGNATORY REQUIREMENT. All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 IAC 702.126. (35 IAC 702.151)

25. CONFIDENTIAL INFORMATION. Any claim of confidentiality must be asserted in accordance with 35 IAC 702.103 and 35 IAC 161.

26. DOCUMENTS TO BE MAINTAINED AT FACILITY SITE. The Permittee shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:

    a. Waste analysis plan as required by 35 IAC 724.113(b) and this permit.

    b. Personnel training documents and records as required by 35 IAC 724.116(d) and this permit.

    c. Contingency plan as required by 35 IAC 724.153(a) and this permit.

    d. Closure plan as required by 35 IAC 724.212(a) and this permit.

    e. Cost estimate for facility closure as required by 35 IAC 724.242(d) and this permit.

    f. Operating record as required by 35 IAC 724.173 and this permit.

    g. Inspection schedules as required by 35 IAC 724.115(b) and this permit.

27. WASTE MINIMIZATION. The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently

available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 35 IAC 724.173(b)(9).

GENERAL FACILITY STANDARDS

28. NOTICE OF WASTE FROM A FOREIGN SOURCE. The Permittee who has arranged to receive hazardous waste from a foreign source must notify the Regional Administrator in writing at least four weeks in advance of the date the waste is expected at the facility. (35 IAC 724.112(a))

29. NOTICE OF WASTE FROM OFF-SITE. The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the Permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 IAC 724.112(b))

30. GENERAL WASTE ANALYSIS. The Permittee shall comply with the procedures described in the approved waste analysis plan. (35 IAC 724.113)

31. SECURITY. The Permittee shall comply with the security provisions of 35 IAC 724.114(b) and (c).

32. GENERAL INSPECTION REQUIREMENTS. The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 IAC 724.115(c). Records of inspections shall be kept as required by 35 IAC 724.115(d).

33. PERSONNEL TRAINING. The Permittee shall conduct personnel training as required by 35 IAC 724.116 and shall maintain training documents and records as required by 35 IAC 724.116(d) and (e).

34. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE. The Permittee shall comply with the requirements of 35 IAC 724.117.

PREPAREDNESS AND PREVENTION

35. DESIGN AND OPERATION OF FACILITY. The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 IAC 724.131)

36. REQUIRED EQUIPMENT. The Permittee shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 IAC 724.132.

37. TESTING AND MAINTENANCE OF EQUIPMENT. The Permittee shall test and maintain the equipment specified in condition 36 as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 IAC 724.133)

38. ACCESS TO COMMUNICATIONS OR ALARM SYSTEM. The Permittee shall maintain access to the communications or alarm system as required by 35 IAC 724.134.

39. REQUIRED AISLE SPACE. The Permittee shall maintain aisle space as required by 35 IAC 724.135 and National Fire Protection Association (NFPA) requirements.

40. ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS. The Permittee shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 IAC 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

CONTINGENCY PLAN

41. IMPLEMENTATION OF PLAN. The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 IAC 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed). Within 15 days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 IAC 724.156(j).

42. COPIES OF PLAN. A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 IAC 724.153.

43. AMENDMENTS TO PLAN. The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 35 IAC 724.154.

44. EMERGENCY COORDINATOR. A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 IAC 724.155 and 724.156.

MANIFEST SYSTEM RECORD KEEPING AND REPORTING

45. MANIFEST SYSTEM. The Permittee shall comply with the manifest requirements of 35 IAC 724.171, 724.172 and 724.176.

46. OPERATING RECORD. The Permittee shall maintain a written operating record at the facility in accordance with 35 IAC 724.173.

47. ANNUAL REPORT. The Permittee shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 IAC 724.175.

CLOSURE

48. PERFORMANCE STANDARD. The Permittee shall close the facility as required by 35 IAC 724.211 and in accordance with the approved closure plan.

49. AMENDMENT TO CLOSURE PLAN. The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 IAC 724.212(c).

50. NOTIFICATION OF CLOSURE. The Permittee shall notify the Illinois EPA at least 60 days prior to the date it expects to begin closure. (35 IAC 724.212(d))

51. TIME ALLOWED FOR CLOSURE. After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 IAC 724.213)

52. DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT. When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 IAC 724.214) plan.

53. CERTIFICATION OF CLOSURE. When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 IAC 724.215 that the facility has been closed as specified by the approved closure plans.

54. COST ESTIMATE FOR FACILITY CLOSURE. The Permittee's original closure cost estimate, prepared in accordance with 35 IAC 724.242, must be:

    a. Adjusted for inflation either 60 days prior to each anniversary of the date on which the first closure cost estimate was prepared or if using the financial test or corporate guarantee, within 30 days after close of the firm's fiscal year.

    b. Revised whenever there is a change in the facility's closure plan increasing the cost of closure.

    c. Kept on record at the facility and updated. (35 IAC 724.242)

55. FINANCIAL ASSURANCE FOR FACILITY CLOSURE. The Permittee shall demonstrate compliance with 35 IAC 724.243 by providing documentation of financial assurance, as required by 35 IAC 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 IAC 724.243.

56. LIABILITY REQUIREMENTS. The Permittee shall demonstrate continuous compliance with the requirements of 35 IAC 724.247 and the documentation requirements of 35 IAC 724.251.

57. IN CAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS. The Permittee shall comply with 35 IAC 724.248 whenever necessary.

LAND DISPOSAL RESTRICTIONS

58. DISPOSAL PROHIBITION. Any waste identified in 35 IAC Part 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 IAC Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.

59. DILUTION PROHIBITION. The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 IAC 728, Subpart D (35 IAC 728.103).

60. WASTE ANALYSIS.

1. The Permittee must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

2. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.

3. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 IAC 728.107 and 728.150(a)(1).

61. STORAGE RESTRICTIONS

1. The Permittee shall not store hazardous wastes restricted from land disposal under 35 IAC Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 IAC 728.150 or such information is recorded and maintained in the operating records at the facility.

2. The Permittee must comply with the operating record requirements of 35 IAC 724.173.

62. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 IAC Part 728, Subpart C, or for which treatment standards have been established under 35 IAC 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 58 through 61 above.

SFN:MAS:bjh\96401s.doc

SECTION VIII
SPECIAL CONDITIONS

A. Waste Analysis

1. All hazardous waste blended into a fuel to be burned for energy recovery must have a heating value of at least 5,000 BTU/lb. This requirement may be superseded if the Permittee provides documentation to the Illinois EPA that all facilities which receive the waste fuel have a certification of compliance based on the specification in the approved permit application.

2. The Permittee shall document the receipt of each load of waste at that site in the operating record. The results of the mandatory and any supplemental analyses performed on the received waste shall also be placed in the operating record.

   a. If significant manifest discrepancies in quantity are encountered, the procedures used to reconcile the discrepancy shall be included in the operating record;

   b. If a significant manifest discrepancy is not resolved within (15) days after receiving the waste, the Permittee must immediately submit a letter to the Illinois EPA's Division of Land Pollution Control, describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue.

3. Used oil which is received at this facility for blending into a fuel program or re-refining is subject to a TCLP analysis unless an analysis (by EPA Method 9077) shows total chlorine is less than 1000 ppm or an adequate rebuttal is made. Used oil destined for other uses besides a fuel program or re-refining (disposal, road application, . . .) are subject to the full TCLP requirements.

4. Storage

   Before any wastes are placed into a storage unit, facility management will assess the compatibility of the waste with the storage unit materials of construction and with wastes already stored therein.

   a. <u>Containerized Storage Compatibility</u> will be assessed by performing a Liquid Waste Compatibility Test, on the waste received for container storage with a composite sample aggregating all samples taken from the candidate storage area in a seven day period. If the incoming sample passes the Liquid Waste Compatibility criteria, an aliquot of the incoming sample will be added to the composite to create a compatibility composite for the next sample.

b. Tank Farm Compatibility will be assessed by performing a Liquid Waste Compatibility Test, 11, on the liquid received for bulk storage with a composite sample of the tanks within the containment system to which the new waste will be added.

Ignitable wastes will be handled according to 40 CFR 265.17 to prevent accidental ignition.

The below referenced procedure, Liquid Waste Compatibility Test D5058A, is described in the following publication "Annual Book of ASTM Standards", American Society for Testing Materials, 1916 Race Street, Philadelphia, PA 19013, most recent edition.

Under the revised method the test will be conducted at 1:1 ratio of the new waste stream and the composite of existing wastes stored at the facility. The Permittee shall use a 100 ml composite of existing waste streams from which a 5 ml is taken to test 5 ml of a sample of the waste stream received for storage at the facility. If no reaction is observed, a second 5 ml aliquot of the same sample is added to the larger (remaining 95 ml) composite in preparation for testing the next sample.

5. Receipt Analysis

A. Core Business

Wastes received from Safety-Kleen's core business will be bulked into dedicated storage tanks and analyzed for the parameters outlined in the Waste Analysis Plan prior to processing. These waste streams only include wastes associated with the following:

Parts Washer Solvent
Immersion Cleaner Solvent
Paint Gun Cleaner Solvent and Paint Wastes
Dry Cleaning Solvent and Filters
Used Oils
Antifreeze/Coolants

B. Industrial Wastes

The Permittee shall determine visual characteristics (color, obvious viscosity, phase, etc.) which are appropriate to each waste stream to aid in determining if the

physical appearance of the waste received conforms to the description of the waste in the pre-acceptance evaluation.

Changes in physical appearance will require contacting the generator to reconcile the discrepancies. Changes in physical appearance due to different dyes, supplier or variations of the main constituents without a change in the manufacturing operations do not require performing a pre-acceptance analysis. However, if the variation is due to change in the manufacturing process, then the waste shall be treated as a new waste stream and hence will require a new pre-acceptance analysis.

i. Visual Evaluation

a. Bulk wastes shall be visually inspected individually to verify that the contents match the pre-acceptance physical description of the waste.

b. Each container in the shipment will be visually inspected by obtaining a full depth vertical sample to verify that the contents match the pre-acceptance physical description of the waste.

ii. Receipt Sampling and Analysis

a. Bulk wastes shall be individually sampled and analyzed and compared to the pre-acceptance analysis for conformance with an acceptance criteria.

b. Containerized wastes received from each generator containing the same waste profile (each line item on the manifest) shall be composited. This initial composite shall be limited to a maximum of twenty (20) drums. The Permittee shall randomly select every fifth such composite sample to be analyzed and compared to the pre-acceptance analysis for that waste profile for conformance with an acceptance criteria.

The Permittee shall generate a second composite sample which shall be analyzed for the fingerprint parameters (PCBs, VOC, BTU, etc.) outlined in the waste analysis plan. The composite for containerized waste may be composed of different line items containing similar waste codes (F001 and F002); however, this composite shall be limited to a maximum of twenty drums. This test is to determine treatability.

iii. Acceptance Criteria

The initial sample shall be analyzed for VOC and compared to the pre-acceptance analysis for that waste profile. If a new constituent appears, that is detected above 10%, then the waste stream will be considered as a new waste stream and will require a new pre-acceptance analysis.

6. The facility shall conduct pre-acceptance analysis in accordance with the approved waste analysis plan and the following requirements:

a. The waste must be re-analyzed for the pre-acceptance parameters required by the waste analysis plan at least every five years.

b. For hazardous waste, the waste must be categorized as a hazardous waste for each TCLP parameter detected by the VOC test unless the waste is a listed hazardous waste and the parameter detected is the basis for the listing or the waste is analyzed for the parameter in question according to the methods set forth in 35 IAC 721 Subpart C and the constituent is not present above the regulatory limit.

c. All wastes declared nonhazardous must have a completed waste profile that identifies that the waste is nonhazardous.

d. The Permittee shall not accept waste which has not been properly characterized in accordance with 35 Ill. Adm. Code 722.111.

e. Exceptions

i. Based upon the nature of the generator's business and waste generation process, the generator may certify that the eight pesticides (D012, D013, D014, D015, D016, D017, D020 and D031) would not reasonably be expected to be present in their waste. A certification statement must be submitted as part of the application to support this claim.

ii. Petroleum contaminated media and debris from LUST sites are temporarily exempt from full TCLP analysis and the generator may limit anlayses to flashpoint, paint filter test and TCLP lead.

iii. Off-specification, unused or discarded commercial chemicals products may use a MSDS to determine the hazardous constituents present and appropriate USPEA hazardous waste class, if applicable, in lieu of analytical results.

iv. Used oil which is destined for fuel blending must provide analyses for flashpoint, total organic halogen or total chloride, bottom sediment and water, and totals for arsenic, cadmium, chromium, lead, and reactive sulfide.

7. The fingerprint parameters, at a minimum, for used antifreeze/coolant shall be specific gravity, PCBs, halogenated compounds and percent water.

B. Reporting Requirements

1. Any incident which requires implementation of the contingency plan shall be recorded in the facilities operating record in an incident log which is maintained separate from the facilities other operating records. The incident log must include a copy of each incident report. The incident report must include, at a minimum, the waste management units involved in the incident, the cause of the release, measures taken to correct the situation and prevent a reoccurrence in addition to the information identified in the approved application.

C. Closure

1. At least 180 days prior to closure of any hazardous waste management unit at this facility the Permittee shall submit its closure plan to insure it complies with the current Illinois EPA standards in effect at the time of closure.

D. General Operating Requirements

1. The Permittee is prohibited from conducting any waste management activities outside the permitted boundaries of this facility without a permit modification and proof of compliance with Section 3.32 and 39(c) of the Act. Waste management includes storage, staging, treatment, sampling or all other activities not associated with transportation of waste.

2. Container may not be staged on the staging pad for more than 24 hours.

E. Construction Requirements

1. The proposed hazardous waste management units must be constructed in accordance with the approved permit application and the Part B permit. Modification to the tank system and tank or container, secondary containment system including changes to physical dimensions or materials of construction are subject to the permit modification requirements prior to construction. Changes in structural members or foundation design which are completed prior to the operation of the hazardous waste management

unit and have been certified by the Illinois licensed structural engineer of record are not subject to the permit modification requirements provided the changes are made solely to maintain the structural integrity of the unit.

2. The Permittee shall perform a complete inspection of the surface coating yearly and perform annual maintenance to insure the integrity of the coating.

F. Contingency Plan

1. The contingency plan must be implemented whenever there is a fire, explosion or spill which involves hazardous waste or which occurs in areas where hazardous waste is treated or stored. This includes spills within the containment system. A spill is any release of material outside the permitted unit, into or outside of the containment system.

2. The Permittee shall contact the local emergency response entities immediately after implementation of the contingency plan unless the spill is less than one pound in quantity and it is immediately contained and cleaned up, or the spill is below the quantity specified in Condition 2(d) of this section.

   a. The entities which must be notified include:

      1. Chicago Police Department -- 9th Precinct
      2. Chicago Fire Department
      3. University of Illinois Hospital
      4. Mercy Hospital
      5. Raymond Orozco --- Acting Chairman of the Local Emergency Planning Committee
      6. IESDA (IEMA)
      7. National Response Center
      8. DLPC, FOS -- Northern Region (within 24 hours)

   b. The information which must be initially relayed to each entity includes:

      1. The type of emergency (release, fire or explosion);

      2. The type of wastes involved in the emergency and the approximate quantity involved;

      3. An initial assessment of the conditions at the site; and whether outside help is needed to properly respond to the situation.

c. If the Permittee is able to properly respond to the emergency without any aid from the entities identified in Condition 2.a above, the Permittee shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.

d. The following compounds listed in Attachment H will not have an impact off-site if the spill is below the quantity identified below:

Chemical Group	Spill Quantity	Group(s)
Aliphatics alcohols	29 gallons	1
Aliphatics, oxygenated	14 gallons	3
Aliphatics, halogenated	3 gallons	6
Aliphatics, ketones	32 gallons	8
Other aliphatics	9 gallons	2, 5, 9, 10
Aromatic, halogenated	60 gallons	7
Aromatic, general	50 gallons	4

Therefore, the local emergency response entities are not required to be notified because of spill below the quantity identified above. The Permittee shall conduct air modeling for new chemicals (i.e., not listed in Attachment H) for other chemicals contained within approved wastes codes (i.e., Attachment A) prior to managing these chemicals (wastes) at the Chicago Recycle Center. If the spill of the new chemical within it's chemical group would have an impact off-site at a lower quantity than that specified above, the facility must submit a class 1 modification to amend their Part B permit.

3. The Permittee shall provide applicable local emergency response entities with changes/modifications to the contingency plan and offer to meet and review the plan on an annual basis. Copies of the meeting notes and list of attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon verbal or written request.

G. Miscellaneous

1. All used oil which contains greater than 1,000 ppm halogens which cannot be adequately rebutted are hazardous wastes and must be handled accordingly (i.e., they cannot be processed into an on-specification or off-specification used oil fuel).

2. Discharges of precipitation to the storm sewer from the loading/unloading areas shall not be in violation of state or local laws or permits.

3. Financial assurance for the amounts in Attachment F shall be submitted 60 days prior to placing wastes in the unit.

4. Photographic wastes are limited to hazardous waste codes D002 and D011.

H. Generic Waste Streams Authorizations Pursuant to Section 22.11 of the Environmental Protection Act

1. The Permittee is authorized to accept the wastes identified in Condition D(H)(2) below provided the generator complies with the following requirements:

   a. The waste is analyzed in accordance with the waste analysis plan submitted as part of the approved Part B permit application, Condition D(A) and all subsequent waste analysis requirements included in the approved Part B Permit; and it is determined that the waste complies with the acceptance criteria in the approved waste analysis plan;

   b. The waste is delivered by an Illinois special waste hauler or an exempt hauler as defined in 35 Ill. Adm. Code 809.211; and

   c. The waste is accompanied by a manifest, if required.

The Illinois EPA has modified its procedures. As a result, an authorization number is no longer required. Therefore, the generator will no longer be required to identify the authorization number on the manifest when shipping waste as authorized by this permit.

2. The following categories of waste from more than one generator may be accepted:

   a. Nonhazardous waste, received for storage and transfer offsite.

   b. Nonhazardous waste, received for treatment.

c. Hazardous waste, received for treatment.

d. Hazardous waste, received for storage and transfer offsite.

SFN:MAS:bjh\96401s.doc

ATTACHMENT A

WASTES WHICH CAN BE ACCEPTED AND
HAZARDOUS WASTE IDENTIFICATION NUMBERS

ILD005450697

Hazardous Waste No.	Description of Hazardous Waste
A.	Characteristically hazardous waste
D001.	Solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste.
D002	Solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste.
D004	Solid waste exhibiting the characteristic of TCLP toxicity for arsenic at 5.0 mg/l or more.
D005	Solid waste exhibiting the characteristic of TCLP toxicity for barium at 100 mg/l or more.
D006	Solid waste exhibiting the characteristic of TCLP toxicity for cadmium at 1.0 mg/l or more.
D007	Solid waste exhibiting the characteristic of TCLP toxicity for chromium at 5.0 mg/l or more.
D008	Solid waste exhibiting the characteristic of TCLP toxicity for lead at 5.0 mg/l or more.
D009	Solid waste exhibiting the characteristic of TCLP toxicity for mercury at 0.2 mg/l or more.
D010	Solid waste exhibiting the characteristic of TCLP toxicity for selenium at 1.0 mg/l or more.
D011	Solid waste exhibiting the characteristic of TCLP toxicity for silver at 5.0 mg/l or more.
D018	Solid waste exhibiting the characteristic of TCLP toxicity for benzene at 0.5 mg/l or more.
D019	Solid waste exhibiting the characteristic of TCLP toxicity for carbon tetrachloride at 0.5 mg/l or more.
D021	Solid waste exhibiting the characteristic of TCLP toxicity for chlorobenzene at 100.0 mg/l or more.
D022	Solid waste exhibiting the characteristic of TCLP toxicity for chloroform at 6.0 mg/l or more.

D023 Solid waste exhibiting the characteristic of TCLP toxicity for o-cresol at 200.0 mg/l or more.

D024 Solid waste exhibiting the characteristic of TCLP toxicity for m-cresol at 200.0 mg/l or more.

D025 Solid waste exhibiting the characteristic of TCLP toxicity for p-cresol at 200.0 mg/l or more.

D026 Solid waste exhibiting the characteristic of TCLP toxicity for cresol at 200.0 mg/l or more.

D027 Solid waste exhibiting the characteristic of TCLP toxicity for 1,4 dichlorobenzene at 7.5 mg/l or more.

D028 Solid waste exhibiting the characteristic of TCLP toxicity for 1,2 dichloroethane at 0.5 mg/l or more.

D029 Solid waste exhibiting the characteristic of TCLP toxicity for 1,1 dichloroethylene at 0.7 mg/l or more.

D030 Solid waste exhibiting the characteristic of TCLP toxicity for 2,4 dinitrotoluene at 0.13 mg/l or more.

D032 Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobenzene at 0.13 mg/l or more.

D033 Solid waste exhibiting the characteristic of TCLP toxicity for hexachlorobutadiene at 0.5 mg/l or more.

D034 Solid waste exhibiting the characteristic of TCLP toxicity for hexachloroethane at 3.0 mg/l or more.

D035 Solid waste exhibiting the characteristic of TCLP toxicity for methyl ethyl ketone at 200.0 mg/l or more.

D036 Solid waste exhibiting the characteristic of TCLP toxicity for nitrobenzene at 2.0 mg/l or more.

D037 Solid waste exhibiting the characteristic of TCLP toxicity for pentachlorophenol at 100.0 mg/l or more.

D038 Solid waste exhibiting the characteristic of TCLP toxicity for pyridine at 5.0 mg/l or more.

D039 Solid waste exhibiting the characteristic of TCLP toxicity for tetrachloroethylene at 0.7 mg/l or more.

D040 Solid waste exhibiting the characteristic of TCLP toxicity for trichloroethylene at 0.5 mg/l or more.

D041 Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,5 trichlorophenol at 400.0 mg/l or more.

D042 Solid waste exhibiting the characteristic of TCLP toxicity for 2,4,6 trichlorophenol at 2.0 mg/l or more.

D043 Solid waste exhibiting the characteristic of TCLP toxicity for vinyl chloride at 0.2 mg/l or more.

B. Hazardous wastes from non-specific sources

F001 The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons, spent solvent mixtures/blends used in degreasing, and still bottom from the recovery of these spent solvents and spent solvent mixtures.

F002 The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane, 1,1,2-trichloroethane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F003 The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-buryl alcohol, cyclohexanone, methanol, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F004 The following spent non-halogenated solvents: cresols and cresylic acid, nitrobenzene, spent solvent mixtures and blends, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F005 The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, 2-nitropropane, spent solvent mixtures and blends, and the still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F024 Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons.

F037 Petroleum refinery primary oil/water/solids separation sludge.

F038 Petroleum refinery secondary (emulsified) oil/water/solids separation sludge.

C. Hazardous wastes from specific sources

K022 Distillation bottom tars from the production of phenol/acetone from cumene.

K029 Waste from the product steam stripper in the production of 1,1,-trichloroethane.

K030 Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.

K048 Dissolved air flotation float from the petroleum refining industry.

K049 Slop oil emulsion solids from the petroleum refining industry.

K051 API separator sludge from the petroleum refining industry.

K052 Tank bottoms (leaded) from the petroleum refining industry.

K085 Distillation or fractionation column bottoms from the production of chlorobenzene.

K086 Solvent washes and sludges, caustic washes and sludges or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.

K095 Distillation bottoms from the production of 1,1,1-trichloroethane.

K096 Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

D. Discarded commercial chemical products

U001	Acetaldehyde
U002	Acetone
U003	Acetonitrile
U009	Acrylonitrile
U019	Benzene
U031	1-Butanol
U037	Chlorobenzene
U043	Ethane, chloro-
U044	Chloroform
U051	Creosote
U052	Cresols
U055	Cumene
U056	Cyclohexane
U057	Cyclohexanone
U068	Methane, dibromo-
U069	Dibutyl phthalate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U075	Dichlorodifluoromethane
U077	Ethane, 1,2-dichloro
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U080	Methylene Chloride
U083	1,2-Dichloropropane
U084	1,3-Dichloropropene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U110	Dipropylamine
U112	Ethyl acetate
U113	Ethyl acrylate
U117	Ethyl ether
U118	Ethyl methacrylate
U121	Trichloromonofluoromethane
U124	Furan
U125	Furfural
U140	Isobutyl alcohol
U154	Methanol
U159	Methyl ethyl ketone
U161	Methyl isobutyl ketone
U162	Methyl methacrylate

U165	Napthalene
U169	Nitrobenzene
U171	2-Nitropropane
U188	Phenol
U191	2-Picoline
U196	Pyridine
U210	Tetrachloroethylene
U211	Methane, tetrachloro
U213	Tetrahydrofuran
U220	Toluene
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethylene
U239	Xylene
U359	2-Ethoxyethanol

SFN:MAS:bjh\96401s.doc

ATTACHMENT B

INSPECTION SCHEDULE

ILD005450697

Table I: General Inspection Schedule
Security Devices

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Fence	. Inspect entire perimeter for breaches or damage	Weekly
Gates	. Check for proper gate lock function	Weekly
Warning Signs	. Check for presence of warning signs	Monthly
Lighting System	. Check lights for operability	Monthly

Table II: General Inspection Schedule,
Safety & Emergency Equipment

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Protective Gear (e.g., Helmets, Face Shields, Goggles, Boots, Gloves, Acid Resistent Clothing, Disposable Suits, Disposable Bags	. Check accessibility	Monthly
	. Check for adequate supply	Monthly
	. Check for deterioration, damage	Monthly
Breathing Apparatus	. Check for accessibility	Monthly
	. Check for adequate supply, full charge on canisters, and all air tanks	Monthly
	. Check for deterioration and damage	Monthly
	. Check for function	Monthly

First Aid Kits	Check accessibility	Monthly
	Check for adequate supply	Monthly
Emergency Showers	Check that units activate and shut off properly	Weekly
	Check accessibility	Weekly
Water Lines	Check for adequate pressure	Monthly
Internal (Phone or Radio)/External (Phase) Communications Systems	Check accessibility	Weekly
	Check for operations	Monthly
Fire Extinguishers	Check pressure gauge for full charge indication	Monthly
	Check inspection tag to insure annual maintenance by outside fire service is up-to-date	Monthly
	Check seal to ensure no one has used extinguisher	Monthly
	Check to ensure access to units is not blocked	Weekly
Absorbent Supply	Check for adequate supply	Weekly
Recovery Drums	Check for adequate supply	Weekly
Other Emergency and Decontamination Equipment	Check accessibility	Weekly
	Check for adequate supply	Monthly
	Check for deterioration/damage	Monthly

Alternate power supply for alarm system	. Check for disconnection or low charge	Monthly
Respirators and cartridges	. Check for adequate supply	Monthly
Fire department pull stations	. Check for operability and accessibility, location signs	Monthly

Table III: Tank Farms Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	INSPECTION FREQUENCY
Storage Tanks Containment Area	. Check for evidence of spilled materials	Daily
	. Check for cracks and gaps in, or damage to containment base, sumps and drains, and their coatings.	Daily
	. Check for evidence of seepage outside containment (e.g. discoloration)	Daily
	. Check for debris, cleanup residue, improperly stored equipment	Daily
Storage Tanks	. Inspect tank exterior for cracks, leaks, discoloration, and obvious deformation	Daily
	. Check tank integrity	Annually
Access Hatches, Vents, and Sampling Ports	. Check for leaks	Daily
	. Check for damage	Daily
Fill/Drain and Overflow Piping	. Inspect piping for leaks	Daily

	. Inspect valve seals for leaks	Daily
	. Check that handles are not bent or damaged	Daily
Liquid Levels	. Check if operators log book is up to date	Daily
	. Check tank liquid level indicators for operability	Daily
All Ancillary Equipment	. Visual inspection for leaks	Daily
	. Conduct leak test or approved integrity assessment	Annually
Tank Truck loading/ Unloading Area	. Check for evidence of spills or releases in unloading area	Daily
	. Check for removal of spill absorbent and cleanup materials	Daily
	. Check sump, grating and curbs for cracks or other damage	Daily
	. Inspect hoses for deterioration or leakage	Daily
	. Inspect hose couplings and valves for leakage	Daily
	. Inspect containment system for deterioration	Weekly

Table IV: Container Storage Area Inspection Schedule

ITEM	INSPECTION ELEMENT/TYPE OF PROBLEM	FREQUENCY
Container Storage	. Check for evidence of spilled material on slab, ramps, drains, sumps	Daily

	. Check for removal of absorbent materials and cleanup rags	Daily
	. Check for, cracks and gaps in, or damage to, containment bases, sump and drains and coatings	Weekly
	. Check for erosion, uneven settlement, etc.	Weekly
	. Check for corrosion of grating over drains and sumps	Weekly
	. Check for condition and availability of overpack containers	Weekly
Stored Containers	. Check for drum leaks or swelling	Weekly
	. Check that drums are not open	Weekly
	. Check for proper placement	Weekly
	. Check adequacy of aisle space	Weekly
	. Check height of stacks	Weekly
	. Check capacity not exceeded	Weekly
	. . Check for proper labeling	Weekly
Container Loading/ Unloading Area	. Check for damaged containers	Daily
	. Check for evidence of spilled material on slabe and ramps used	Daily
	. Check for removal of used absorbent and cleaning materials	Daily
	. Check for prompt container removal from receiving area	Daily

ATTACHMENT C

CONSTRUCTION CERTIFICATION FORM

ILD005450697

When submitting certifications required by this Part B permit for construction of any new unit, please complete the attached certification form on Page C-3. This will help to ensure that the submittal reaches its proper destination and the certification will meet the regulatory requirements. Sending the Field Operations Section (F.O.S.) copy directly to the Field Office is acceptable as long as all copies have a completed copy of the enclosed form attached and you advise the Permit Section, in writing, that a copy has been sent to Illinois EPA FOS.

A documentation report and as-built drawings (sealed and signed by an Illinois Professional Engineer) must be included with this certification. Information necessary to document the construction of the unit and to support the certification must be contained within the report. This report should include a thorough description of all construction data and drawings and should be formatted in a logical and orderly manner. The construction documentation report must contain at least the following items:

1. An introduction and summary which describes the scope and purpose of the project;

2. A description of all construction activities, including quality assurance and quality control;

3. As-built drawings of the unit and a description of any deviations from the plans and specifications approved in the permit;

4. A description of the test methods used and justification for any deviations from standard test methods;

5. A summary of test results, identification of any samples which did not meet the specifications and the corrective action and retesting which was undertaken in response to any failing test results;

6. Any necessary information associated with construction of the unit to document that construction was in accordance with the plans and specifications approved by the permit;

7. Information specifically required by the permit; and

8. Any available photographs of the unit.

SFN:MAS:bjh\96401s.doc

CONSTRUCTION CERTIFICATION

This statement is to be completed by both the responsible officer and the registered professional engineer upon completion of construction in accordance with 35 IAC Section 702.126. Submit one copy of the certification with original signatures and two additional copies. Forward these certification statements and any information required by the permit to the following address:

Illinois Environmental Protection Agency
Bureau of Land
Division of Land Pollution Control -- #33
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

FACILITY NAME:
IEPA SITE CODE:
USEPA ID NO.:
PART B PERMIT LOG NO.
PERMIT (OR MODIFICATION) ISSUANCE DATE:
PERMIT CONDITION NO. IS REQUIRING CERTIFICATION:

The _____ has been constructed in accordance with the specifications in the Part B. Documentation that the construction was in accordance with the permit is contained in the enclosed report. I certify under penalty of law that this document and all attachments were prepared under my direction of supervision in accordance with a system designed to assure that qualified personnel properly father and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for fathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____	
Signature of Owner/Operator	Name and Title
_____	
Signature of Registered P.E.	Name of Registered P.E. and Illinois Registration Number
Date	(P.E. SEAL)

SFN:MAS:bjh\96401s.doc

ATTACHMENT D

CLOSURE CERTIFICATION FORM

ILD005450697

This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. Submit one copy of the certification with original signatures and three additional copies.

Closure Certification Statement

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

IEPA ID Number
DLPC 0316000053
USEPA ID Number
ILD005450697

Facility Name
CHRSC, LLC
1445 W. 42nd Street
Chicago, Illinois 60609

Signature of Owner/Operator

Name and Title

Signature of Registered P.E.

Name of Registered P.E. and Illinois Registration Number

Date

SFN:MAS:bjh\96401s.doc

ATTACHMENT E

SITE LAYOUT MAP

ILD005450697

ATTACHMENT F

FINANCIAL ASSURANCE REQUIREMENTS

ILD005450697

		Total Tankage	Financial Assurance Required for Unit
1.	Existing Tankage	627,050 gallons	1,447,280
2.	Existing Container Storage Volume	108,900 gallons	339,173
3.	Total Container Storage Volume Once Roof Installed item #3 replaces item #2	146,520 gallons	435,699
4.	Proposed Tank Farm	534,000 gallons	1,043,612

These numbers are based on 2001 dollars.

SFN:MAS:bjh\96401s.doc

ATTACHMENT G

APPROVED PERMIT SECTION IDENTIFICATION

For

CHRSC, LLC

ILD005450697

1.0	Part A Application	August 15, 2003
2.0	Facility Description	May 20, 2004
3.0	Waste Characteristics	March 11, 2004
4.0	Process Information	January 10, 2004
5.0	Contingency Plan	October 15, 2003
6.0	Procedures to Prevent Hazards	October 31, 2003
7.0	Training Plan	August 15, 2003
8.0	Closure Plan	May 8, 2002
9.0	Closure Cost Estimate	July 8, 2004
10.0	Financial Responsibility	May 8, 2002
11.0	Other Federal Laws	August 15, 2003
12.0	Subpart AA	October 31, 2003
13.0	Equipment Leaks	October 31, 2003
14.0	Air Emission Standards for Tanks and Containers	October 31, 2003
15.0	Prior Conduct Certification	May 8, 2002
16.0	List of Exhibits	August 15, 2003

SFN:MAS:bjh\96401s.doc

ATTACHMENT H

CHEMICAL COMPOUND GROUPS

ILD005450697

Chemical Compound Groups
Attachment H

	Name	Waste Code	CAS Number
1.	Alcohols		
	Butyl alcohol, n-(1-Butanol)	F003, U031	71-63-3
	Isoamyl alcohol (3-Methyl-1-butanol)		123-51-3
	Isobutanol (Isobutyl alcohol, 2-methyl-1 propanol)	F005, U140	78-83-1
	Methanol	F003, U154	67-56-1
	Phenols	U188	108-95-2
2.	Aliphatic		
	Acetadehyde	U001	75-07-0
	Cyclohexane	U056	110-82-7
	Hexane		110-54-3
3.	Ethers		
	Ethyl ether	F003, U117	60-29-7
	Dioxane, 1,4-	U108	123-91-1
	Tetrahydrofuran	U213	109-99-9
	Ethoxyethanol,2-(cellosolve®)	F005, U359	110-80-5
4.	Aromatic		
	Benzene	F005, D018, U019	71-43-2
	Cumene	U055	98-82-8

Ethyl benzene	F003	100-41-4
Naphthalene	U165	91-20-3
Toluene	F005, U220	108-88-3
Xylene	F003, U239	1330-20-7

5. Esters

Ethyl acetate	F003, U112	141-78-6
Ethyl acrylate	U113	140-88-5
Ethyl methacrylate	U118	97-63-2
Methyl methacrylate	U162	80-62-6

6. Halogenated, compounds

1,1,2-Trichloro-1,2,2-trifluoroethane (Freon®113)	F002	76-13-1
Carbon tetrachloride (Tetrachloromethane)	F001, D019, U211	96-23-5
Chlorinated fluorocarbons	F001	
Chloroethane	U043	75-00-3
Chloroform	D022, U044	67-66-3
Dibromomethane (Methylene bromide)	U068	74-95-3
Dichlorodifluoromethane (Freon®12)	U075	75-71-8
Dichloroethane, 1,2-	D028, U077	107-06-2
Dichloroethylene, 1,2-(Vinylidene chloride)	D029, U078	75-35-4
Dichloroethylene, 1,2-(mixed isomers)	U079	540-59-0
Dichloropropane, 1,2-	U083	78-87-5

Dichloropropane 1,3-(mixed isomers)	U084	542-75-6
Methylene chloride (Dichloromethane)	F001, F002, U080	75-09-2
Tetrachloroethylene (Perchloroethylene)	F001, F002, D039, U210	127-18-4
Trichloroethane 1,1,1-	F001, F002, U226	71-55-6
Trichloroethane, 1,1,2-	F002, U227	79-00-5
Trichloroethylene	F001, F002, D040, U228	79-01-6
Trichlorofluoromethane (Freon®11)	F002, U121	75-69-4
Vinyl chloride	D043	75-01-4
7. Halogenated, aromatic		
Chlorobenzene	F002, D021, U037	108-90-7
Dichlorobenzene, 1,4-(p-Dichlorobenzene)	D027, U072	106-46-7
Dichlorobenzene, m-	U071	541-73-1
Orthodichlorobenzene (1,2-Dichlorobenzene)	F002	95-50-1
Trichlorophenol 2,3,5-	D041	933-78-8
Trichlorophenol, 2,4,6-	D042	933-75-5
8. Ketone, aliphatic		
Acetone	F003, U002	67-64-1
Cyclohexanone	F003, U057	108-94-1
Methyl ethyl ketone (2-Butanone)	F005, D035, U159	78-93-3
Methyl isobutyl ketone (4-Methyl-2-pentanone)	F003, U161	108-10-1

9. Nitrogen, aliphatic

Acetonitrile	U003	75-05-8
Nitropropane, 2-	F005, U171	79-46-9
Dimethylacetamide		127-19-5
Dipropylamine	U110	142-84-7
Pyridine	F005, D038, U196	110-86-1
Ethyl Pyrrolidone		2687-91-4
Methyl pyrrolidone		872-50-4

10. Sulfur compound, oxygenated

Dimethylsulfoxide		67-68-5

SFN:MAS:bjh\96401s.doc

RE: Clean Harbors RSC LLC ILD 005450697

Davison, Mike to: Diane Sharrow 08/08/2011 08:27 AM
Cc: "Marvel, Todd", "Purseglove, Paul"

From: "Davison, Mike" <Mike.Davison@Illinois.gov>
To: Diane Sharrow/R5/USEPA/US@EPA
Cc: "Marvel, Todd" <Todd.Marvel@Illinois.gov>, "Purseglove, Paul" <Paul.Purseglove@Illinois.gov>

3 attachments

Clean Harbors 12-16-2010.pdf Clean Harbors 12-3-2009.pdf Clean Harbors 12-9-2008.pdf

As requested

-----Original Message-----
From: Marvel, Todd
Sent: Friday, August 05, 2011 11:00 AM
To: Davison, Mike
Subject: FW: Clean Harbors RSC LLC

-----Original Message-----
From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Friday, August 05, 2011 10:37 AM
To: Purseglove, Paul; Marvel, Todd
Cc: Jereza.Lorna@epamail.epa.gov; Bourgikos.Spiros@epamail.epa.gov
Subject: Clean Harbors RSC LLC

Paul or Todd,

Can Region 5 obtain electronic copies of the three most recent CEIs of Clean Harbors ILD 005 450 697 conducted by Illinois EPA on 12/09/2008, 12/03/2009, and 12/16/10?

On July 21, 2011, a tanker carrying a shipment of hazardous waste being exported from Clean Harbors to the Clean Harbors facility in Corunna, Ontario, Canada, exploded at Exit 12 of I-94 in sawyer, Michigan (see attached). The aluminum tanker was carrying sodium hydroxide even though the manifest indicated the waste was MEK.

I have been assigned to investigate, and I anticipate inspecting Clean Harbors soon.

Your assistance is appreciated.

(See attached file: Sawyer hazmat explosion -- wsbt_com.mht)(See attached file: SemiExplosion - YouTube.mht)

Diane M. Sharrow

Environmental Scientist/Senior Inspector USEPA, Region 5, Land and Chemicals Division RCRA Branch, Compliance Section 1 Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity.
To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

COMPLETED DATE: 12/27/2010

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND / FIELD OPERATIONS SECTION

RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #:	ILD005450697			BOL ID #:	0316000053
Facility Name:	Clean Harbors Recycling Services of Chicago, LLC			Phone #:	773-247-2828
Location	1445 W 42nd Street			County:	Cook
City:	Chicago	State:	Illinois	Zip Code:	60609
Region:	Des Plaines	Inspection Date:	12/16/2010	Time:	8:45am- 11:00am
Weather:	Light snow/20's				

FACILITY TYPE

RECEIVED
JAN 14 2011
IEPA/BOL

Notified As:	G, TS	Regulated As:	G, TS

INSPECTION TYPE

CEI:	☒	GME:	☐	OAM:	☐	NRR:	☐	CSE:	☐	CAO:	☐	FUI to:	
FCI (Other):												CCI:	☐ CSI: ☐

NOTIFICATION DATES (EPA 8700-12)

Initial:		Subsequent:	2/1/2008

PART A PERMIT DATES (EPA 3510-3 OR EPA 8700-23)

Initial:		Amended:	2/1/2008	Withdrawn:	

PART B PERMIT

(Check one if applicable) Application Submitted?	☐	Permit Issued?	☒	Date:	3/4/2005

ACTIVE ENFORCEMENT

Date facility referred to:	USEPA:	IAGO:	County State's Attorney:

ACTIVE ENFORCEMENT ORDERS

CACO:	CAFO:	Federal Court Order:
Consent Decree:	IPCB Order:	State Court Order:

RELEASABLE
JAN 27 2011
REVIEWER MD

TSD Facility Activity Summary

Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during inspection?	Exempt per 35 IAC Sec:
S01	☒	☒	☒	☐	☒	
S02	☒	☒	☒	☐	☒	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

Owner		Operator	
Name:	Clean Harbors Recycling Services of Chicago, LLC	**Name:**	Clean Harbors Recycling Services of Chicago, LLC
Address:	42 Longwater Drive (PO Box 9149)	**Address:**	1445 W 42nd Street
City:	Norwell	**City:**	Chicago
State:	MA **Zip Code:** 02061	**State:**	IL **Zip Code:** 60609
Phone #:	803-691-3426	**Phone #:**	773-247-2828

Person(s) Interviewed	Title	Phone #
Alfred Aghapour	General Manager	773-247-2828X1467
Gary Malinowski	Sr. Compliance Manager	773-247-2828
Joseph Nowosielski	Operations Manager	773-247-2828

Inspection Participants	Agency/Bureau	Phone #
*Anna Van Orden	IEPA/BOL	847-294-4068

***Report prepared by this person.**

Summary of Apparent Violations

Section	X	Section	X	Section	X
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐

X = Continuing Violations

0316000053 – Cook County
Clean Harbors Recycling Services of Chicago, LLC
ILD005450697
FOS
Date of Inspection: December 16, 2010
Inspector: Anna VanOrden
Page 1

RECEIVED
JAN 14 2011
IEPA/BOL

NARRATIVE
By Anna VanOrden

Clean Harbors Recycling Services of Chicago, LLC (CHRSC) is a permitted Part B hazardous waste facility located at 1445 W 42nd St., in Chicago, IL.

The Chicago Recycling Center (CRC) is a solvent recycling facility, which specializes in the recovery and recycling of used organic chemicals, solvents and associated wastes. The facility also functions as a service center, which collects, and stores used solvents and other wastes. The materials arrive at the facility in containers (e.g., drums and bulk) and can be stored, treated, and/or recycled. The processes used at the facility include evaporation, distillation, fractionation, liquid extraction, mixing, stripping, blending, drying, filtration, and neutralization.

The wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. Industries served by CRC include chemical manufacturers, pharmaceutical manufacturers, paint manufacturers, automobile, appliance and electronic manufacturers, foundries, metal fabrication shops, maintenance shops, and aircraft manufacturers in Illinois and other states.

Solid and liquid wastes are generated by solvent recovery operations. Distillation and fractionation of waste solvents generate still bottoms, which are generally a heavy, oily waste with significant BTU value and which may contain up to 40 percent solids. These wastes are shipped off-site to be processed into industrial furnace fuel at several Clean Harbors Facilities located in Ontario; Chicago, IL; Kimball, NE and El Dorado, AR. Solid wastes with no significant BTU value or which otherwise cannot be processed into fuel are shipped off site for incineration.

Liquid-liquid extraction, decanting and drying of aqueous/solvent mixtures and distillation of some wastes with high water content generate wastewater that may contain organic chemical or metals. Wastewater generated is piped to the sanitary sewer system under approvals from the Metropolitan Water Reclamation District of Greater Chicago (MWRD).

RELEASABLE
JAN 27 2011
REVIEWER MD

HAZARDOUS WASTE UNITS

TYPE	ACTIVE	CLOSED	WASTES	CAPACITY	SECONDARY CONTAINMENT
S01	Y	N	Numerous See Part B Permit	108,900 Gallons	Diked; Concrete; Catch Basin
S02	Y	N	Numerous See Part B Permit	1,119,865 Gallons	Diked; Concrete; Vault with coating on concrete

HAZARDOUS WASTE GENERATED

Still Bottoms – F001-F002, and D001-D00X

- Residual material from the distillation process
- Shipped to Clean Harbors Canada Inc, Corunna, ON for fuel recovery **(last shipment 11/24/10)**
  Also shipped to:
  Clean Harbors RC Services of Ohio, Hebron, OH (5/25/10)
  Clean Harbors Services Inc, Chicago, IL (8/30/10)
  Clean Harbors El Dorado LLC, El Dorado, AR (10/18/10)
- Rate of generation: ~22,677 gallons per month
- Amount on site: 31,418 gallons

Hazardous Waste Solids – F001, D001

- Waste generated by various methods:
  Cleaning out tanks, used oil dry, hose drippings, cut drums in order to remove solid material, used filters from filtrating material from waste and product tanks.
- Shipped to Clean Harbors El Dorado LLC, El Dorado, AR **(last shipment 11/24/10)**
- Rate of generation: 7/55gallon drums per month
- Amount on site: 4/55 gallon drum

Flammable Liquid – D001

- Hazardous process water from off-site
- Shipped to Clean Harbors Canada Inc, Corunna, ON for fuel recovery **(last shipment 11/23/10)**
- Rate of generation: ~5,605 gallons per month
- Amount on site: 5,659 gallons

Waste Mercury Bulbs – D009 (Universal Waste)

- Generated from on-site maintenance
  4' bulbs
  8' bulbs
  Misc. bulbs
- Amount on-site: 0
- Shipped to Clean Harbors El Dorado LLC, El Dorado, AR **(last shipped 12/13/10)**

NON-HAZARDOUS SPECIAL WASTE GENERATED

Wastewater-

- Generated during distillation process that does not meet MWRD standards for direct discharge into sanitary sewers system.
- Shipped to ESI in Indianapolis, IN (last shipped on 9/23/10).
- Rate of generation vies.

OBSERVATIONS

On November 18, 2010, CHRSC received a permit modification for the closure of tank T-17 and the replacement of tanks T-103, and T-104, and T-1 through T-4. The work has been completed and the tanks are in use.

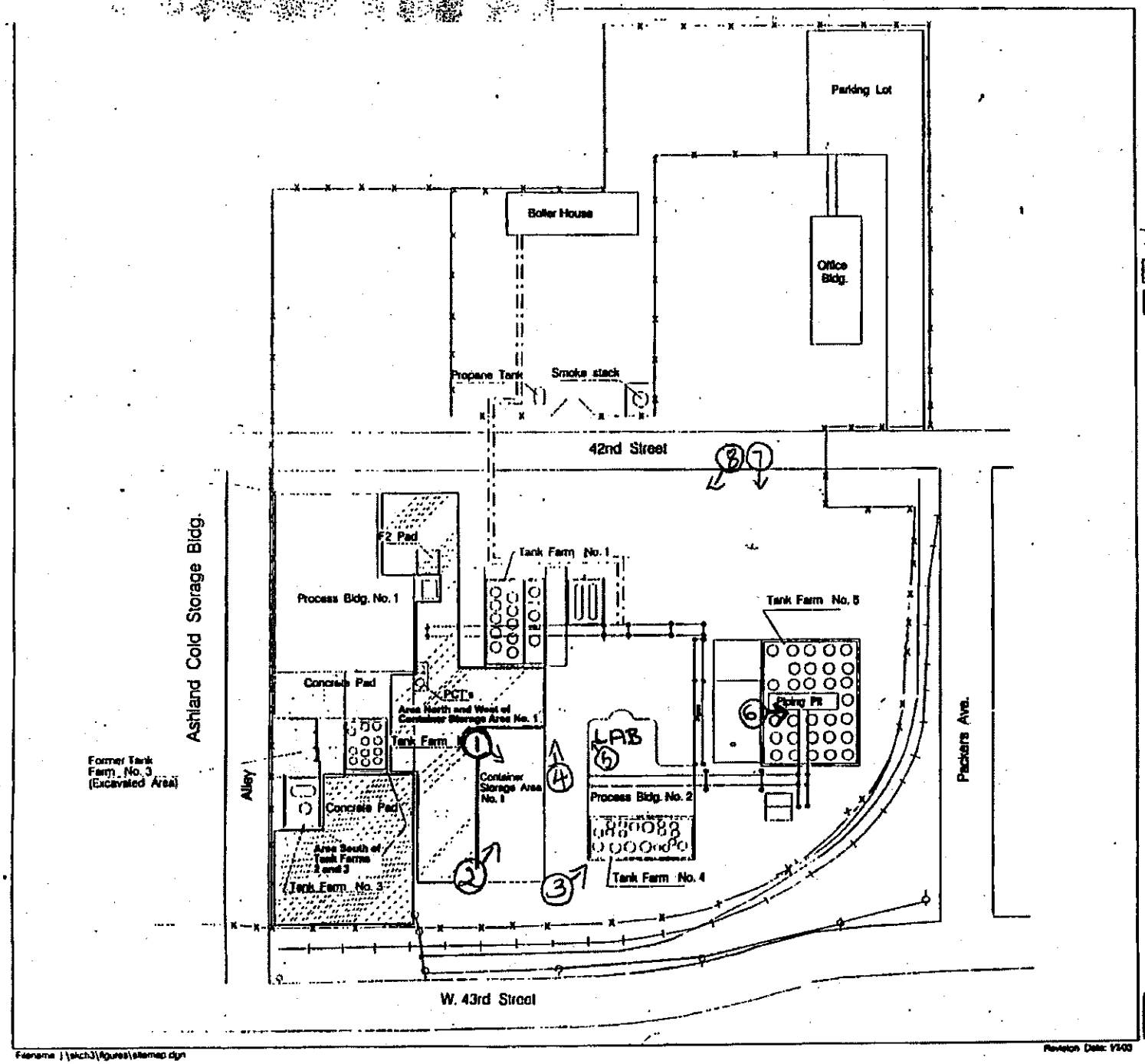
On December 6, 2010, an Incident Report #H-2010-1323 was called in by the facility for a 27 gallon spill which occurred at an above ground storage tank in Tank Farm #5 due to a failed gasket. All the release was contained in the secondary containment area.

At the time of the inspection, the facility was regulated as a generator, treatment and storage facility. All record keeping and notification requirements were in compliance with all applicable RCRA regulations and the Part B Permit requirements.

HAZARDOUS WASTE DISPOSITION FORM

Facility Name:	Clean Harbors Recycling Services of Chicago, LLC	**USEPA ID #:**	ILD005450697
Inspection Date:	December 16, 2010	**IEPA ID #:**	0316000053

Waste Name	Generating Process	Last Analysis Date	USEPA HW #	On Notif.? (8700-12)	On Part A? (3510-3 or 8700-23)	On Annual Report for Years:			Amount On-Site	Gener-ation Rate	Last Mani-fest Date	Disposition
						2009	2008	2007				
Still Bottoms	Distillation Process	every shipment	F001-F002 D001-X	☒	☒	☒	☒	☒	31,418 gallons	22,677 gallons month	11/24/10	Clean Harbors Canada Inc., Corunna, ON Fuel recovery
Hazardous Waste Solids	From spills, clean-ups processing filters	every shipment	F001 D001	☒	☒	☒	☒	☒	4/55 gallon drum	7/55 gallon drums month	11/24/10	Clean Harbors El Dorado LLC, El Dorado, AR
Flammable Liquid	Process water	every shipment	D001	☒	☒	☒	☒	☒	5,659 gallons	5,605 gallons month	11/23/10	Clean Harbors Canada Inc., Corunna, ON Fuel recovery
Waste Mercury Bulbs (Universal Waste)	On-site Maintenance	knowledge	D009	☒	☒	☒	☒	☒	0various size bulbs	Varies	12/13/10	Clean Harbors El Dorado LLC, El Dorado, AR
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				



N

100 0 100

SCALE IN FEET

Legend

Fenceline – Property Boundary

Engineered Barrier

Approximate SWMU Areas

Photos ♂

CLEAN HARBORS

Chicago Recycle Center

0316000053

ILD005450697

DECEMBER 16, 2010

LTI Environmental Engineering
A Division of Limno-Tech, Inc.
501 Avis Dr, Ann Arbor, MI 48108

Filename: J:\skch3\figures\sitemap.dgn

Revision Date: 1/2/03

The appearance of some of the images

following this page is due to

Poor Quality Original Documents

and not the scanning or filming processes.

Com Microfilm Company
(217) 525-5860

J:\toolbox\poorDocs.doc

DIGITAL PHOTOGRAPHS

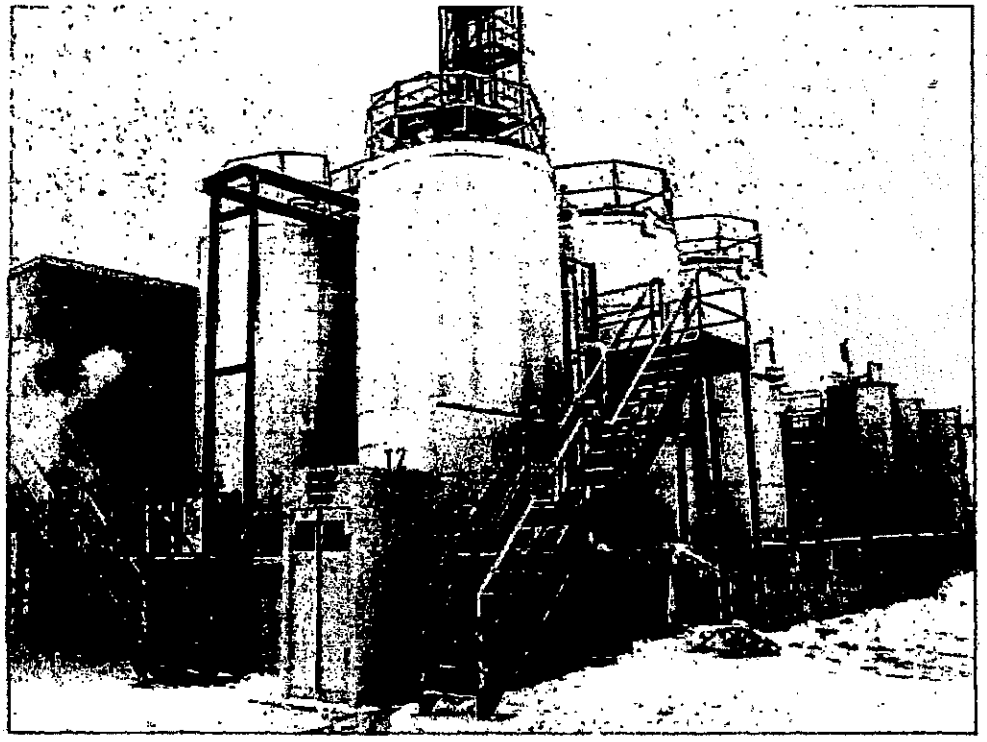
File Names: 0316000053 ~ 12162010-[Exp. #].jpg

Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: SE
Photo by: A. VanOrden
Exposure #: 01
Comments:
Hazardous waste container storage area.

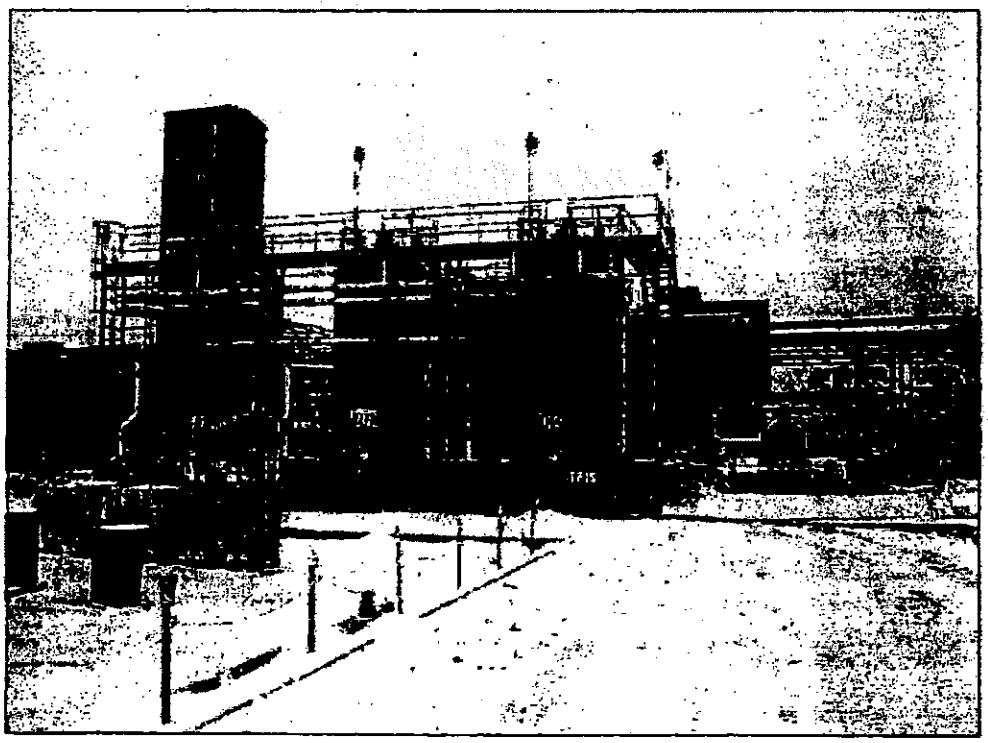
Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: NE
Photo by: A. VanOrden
Exposure #: 02
Comments:
Container storage area got hazardous and non-hazardous waste.

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12162010-[Exp. #].jpg



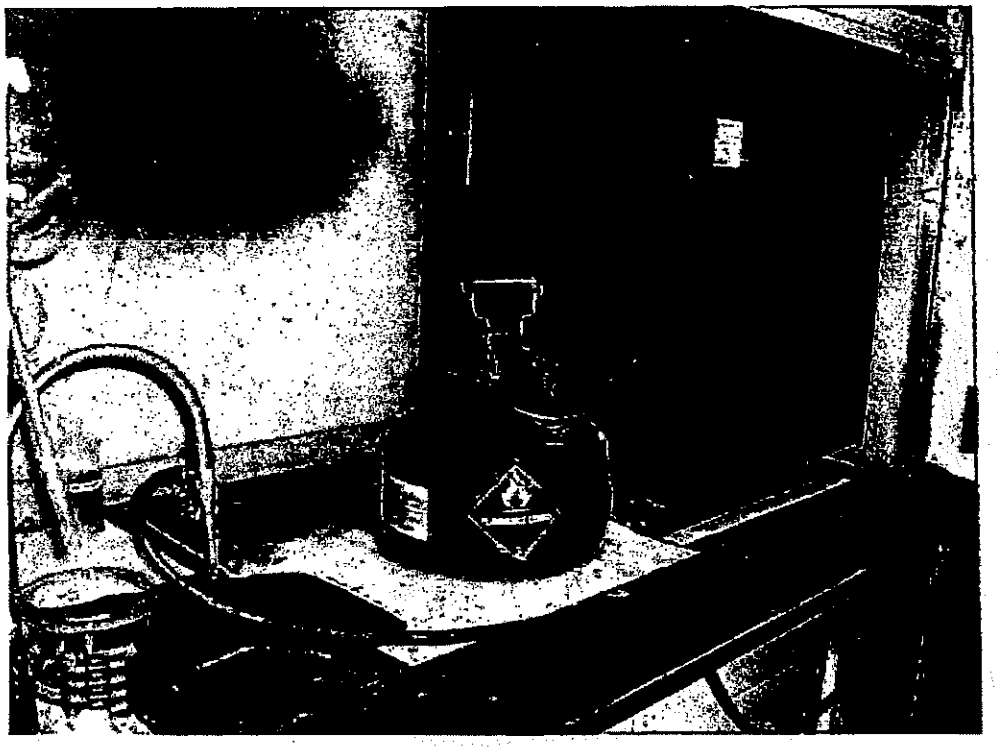
Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: NE
Photo by: A. VanOrden
Exposure #: 03
Comments:
New replacement tanks in Tank Farm #4.



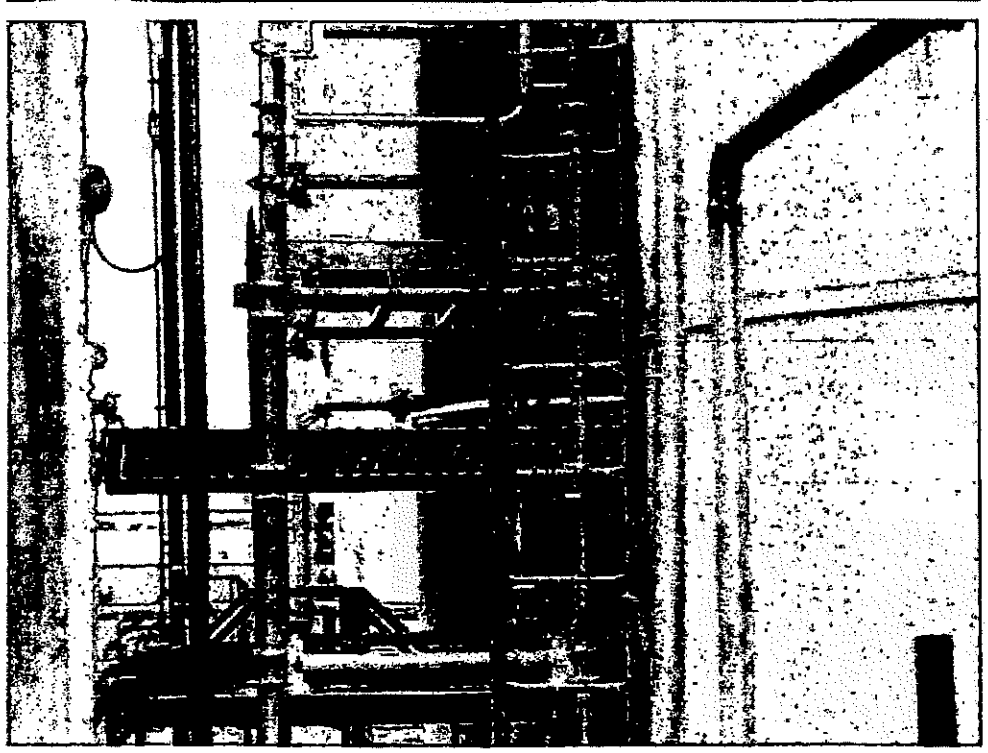
Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: N
Photo by: A. VanOrden
Exposure #: 04
Comments:
New replacement tanks in Tank Farm #1.

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12162010-[Exp. #].jpg



Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction:NW
Photo by: A. VanOrden
Exposure #: 05
Comments:
Satellite accumulation container in laboratory building.

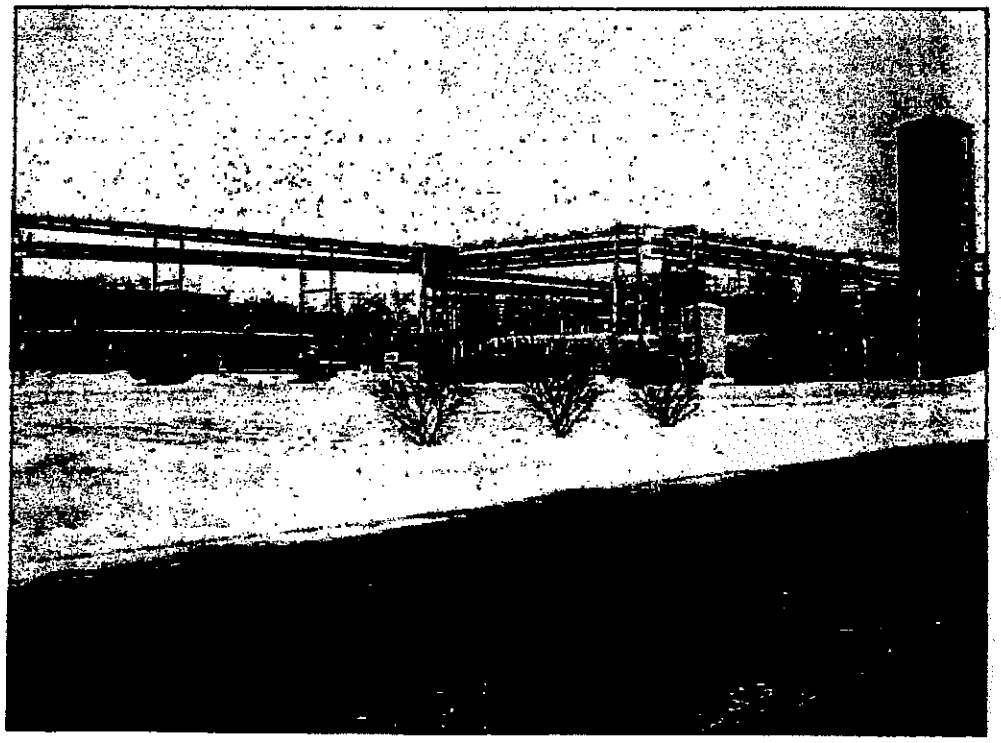


Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: E
Photo by: A. VanOrden
Exposure #: 06
Comments:
View of gasket failure reported in Tank Farm #5 on 12/6/2010 in secondary containment area.

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12162010-[Exp. #].jpg

Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: S
Photo by: A. VanOrden
Exposure #: 07
Comments:
View of Tank farm #5 and truck bay from 42nd St.



Date: 12/16/2010
Time: 8:45AM-11:00AM
Direction: SW
Photo by: A. VanOrden
Exposure #: 08
Comments:
View of Tank Farm #1 from 42nd St.

COMPLETED DATE: 12/7/2009

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND / FIELD OPERATIONS SECTION

RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #:	ILD005450697			BOL ID #:	0316000053
Facility Name:	Clean Harbors Recycling Services of Chicago, LLC			Phone #:	773-247-2828
Location	1445 W 42nd Street			County:	Cook
City:	Chicago	State:	Illinois	Zip Code:	60609
Region:	Des Plaines	Inspection Date:	12/3/2009	Time:	9:45am-1:30pm
Weather:	Light snow/20's				

RECEIVED
DEC 09 2009
IEPA/BOL

FACILITY TYPE

Notified As:	G, TS	Regulated As:	G, TS

INSPECTION TYPE

CEI: ☒ GME: ☐ OAM: ☐ NRR: ☐ CSE: ☐ CAO: ☐ FUI to:

FCI (Other): CCI: ☐ CSI: ☐

NOTIFICATION DATES (EPA 8700-12)

Initial: Subsequent: 2/1/2008

PART A PERMIT DATES (EPA 3510-3 OR EPA 8700-23)

Initial: Amended: 2/1/2008 Withdrawn:

PART B PERMIT

(Check one if applicable) Application Submitted? ☐ Permit Issued? ☒ Date: 3/4/2005

ACTIVE ENFORCEMENT

Date facility referred to: USEPA: IAGO: County State's Attorney:

ACTIVE ENFORCEMENT ORDERS

CACO:	CAFO:	Federal Court Order:
Consent Decree:	IPCB Order:	State Court Order:

RELEASABLE
DEC 10 2009
REVIEWER MD

TSD Facility Activity Summary

Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during inspection?	Exempt per 35 IAC Sec:
S01	☒	☒	☒	☐	☒	
S02	☒	☒	☒	☐	☒	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

Owner				Operator			
Name:	Clean Harbors Recycling Services of Chicago, LLC			**Name:**	Clean Harbors Recycling Services of Chicago, LLC		
Address:	42 Longwater Drive (PO Box 9149)			**Address:**	1445 W 42nd Street		
City:	Norwell			**City:**	Chicago		
State:	MA	**Zip Code:**	02061	**State:**	IL	**Zip Code:**	60609
Phone #:	803-691-3426			**Phone #:**	773-247-2828		

Person(s) Interviewed	Title	Phone #
Alfred Aghapour	General Manager	773-247-2828X1467
Gary Malinowski	Sr. Compliance Manager	773-247-2828
Joseph Nowosielski	Operations Manager	773-247-2828

Inspection Participants	Agency/Bureau	Phone #
*Anna Van Orden	IEPA/BOL	847-294-4068

***Report prepared by this person.**

Summary of Apparent Violations

Section	X	Section	X	Section	X
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐

X = Continuing Violations

0316000053 – Cook County
Clean Harbors Recycling Services of Chicago, LLC
ILD005450697
FOS
Date of Inspection: December 3, 2009
Inspector: Anna VanOrden
Page 1

RECEIVED
DEC 09 2009
IEPA/BOL

NARRATIVE
By Anna VanOrden

Clean Harbors Recycling Services of Chicago, LLC (CHRSC) is hazardous waste facility located at 1445 W 42nd St., in Chicago, IL.

The Chicago Recycling Center (CRC) is a solvent recycling facility, which specializes in the recovery and recycling of used organic chemicals, solvents and associated wastes. The facility also functions as a service center, which collects, and stores used solvents and other wastes. The materials arrive at the facility in containers (e.g., drums and bulk) and can be stored, treated, and/or recycled. The processes used at the facility include evaporation, distillation, fractionation, liquid extraction, mixing, stripping, blending, drying, filtration, and neutralization.

The wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. Industries served by CRC include chemical manufacturers, pharmaceutical manufacturers, paint manufacturers, automobile, appliance and electronic manufacturers, foundries, metal fabrication shops, maintenance shops, and aircraft manufacturers in Illinois and other states.

Solid and liquid wastes are generated by solvent recovery operations. Distillation and fractionation of waste solvents generate still bottoms, which are generally a heavy, oily waste with significant BTU value and which may contain up to 40 percent solids. These wastes are shipped off-site to be processed into industrial furnace fuel at several Clean Harbors Facilities located in Ontario; Chicago, IL; Kimball, NE and El Dorado, AR. Solid wastes with no significant BTU value or which otherwise cannot be processed into fuel are shipped off site for incineration.

Liquid-liquid extraction, decanting and drying of aqueous/solvent mixtures and distillation of some wastes with high water content generate wastewater that may contain organic chemical or metals. Wastewater generated is piped to the sanitary sewer system under approvals from the Metropolitan Water Reclamation District of Greater Chicago.

RELEASABLE
DEC 10 2009
REVIEWER MD

HAZARDOUS WASTE UNITS

TYPE	ACTIVE	CLOSED	WASTES	CAPACITY	SECONDARY CONTAINMENT
S01	Y	N	Numerous See Part B Permit	108,900 Gallons	Diked; Concrete; Catch Basin
S02	Y	N	Numerous See Part B Permit	1,119,865 Gallons	Diked; Concrete; Vault with coating on concrete

HAZARDOUS WASTE GENERATED

Still Bottoms – F001-F002, and D001-D00X

- Residual material from the distillation process
- Shipped to Clean Harbors Canada Inc, Corunna, ON for fuel recovery **(last shipment 10/23/09)**
- Rate of generation: ~37,719 gallons per month
- Amount on site: 15,804 gallons

Hazardous Waste Solids – F001, D001

- Waste generated by various methods:
  Cleaning out tanks, used oil dry, hose drippings, cut drums in order to remove solid material, used filters from filtrating material from waste and product tanks.
- Shipped to Clean Harbors El Dorado LLC, El Dorado, AR **(last shipment 10/30/09)**
- Rate of generation: 11/55gallon drums per month
- Amount on site: 1/55 gallon drum

Flammable Liquid – D001

- Hazardous process water from off-site
- Shipped to Clean Harbors Recycling Services of Ohio, LLC, Hebron, OH **(last shipment 10/8/09)**
- Rate of generation: ~5,942 gallons per month
- Amount on site: 4,768 gallons

Waste Mercury Bulbs – D009 (Universal Waste)

- Generated from on-site maintenance
- Amount on-site:
  - 75 - 4' bulbs
  - 27 - 8' bulbs
  - 9 - Misc. bulbs
- Shipped to Clean Harbors El Dorado LLC, El Dorado, AR **(last shipped 1/9/09)**

OBSERVATIONS

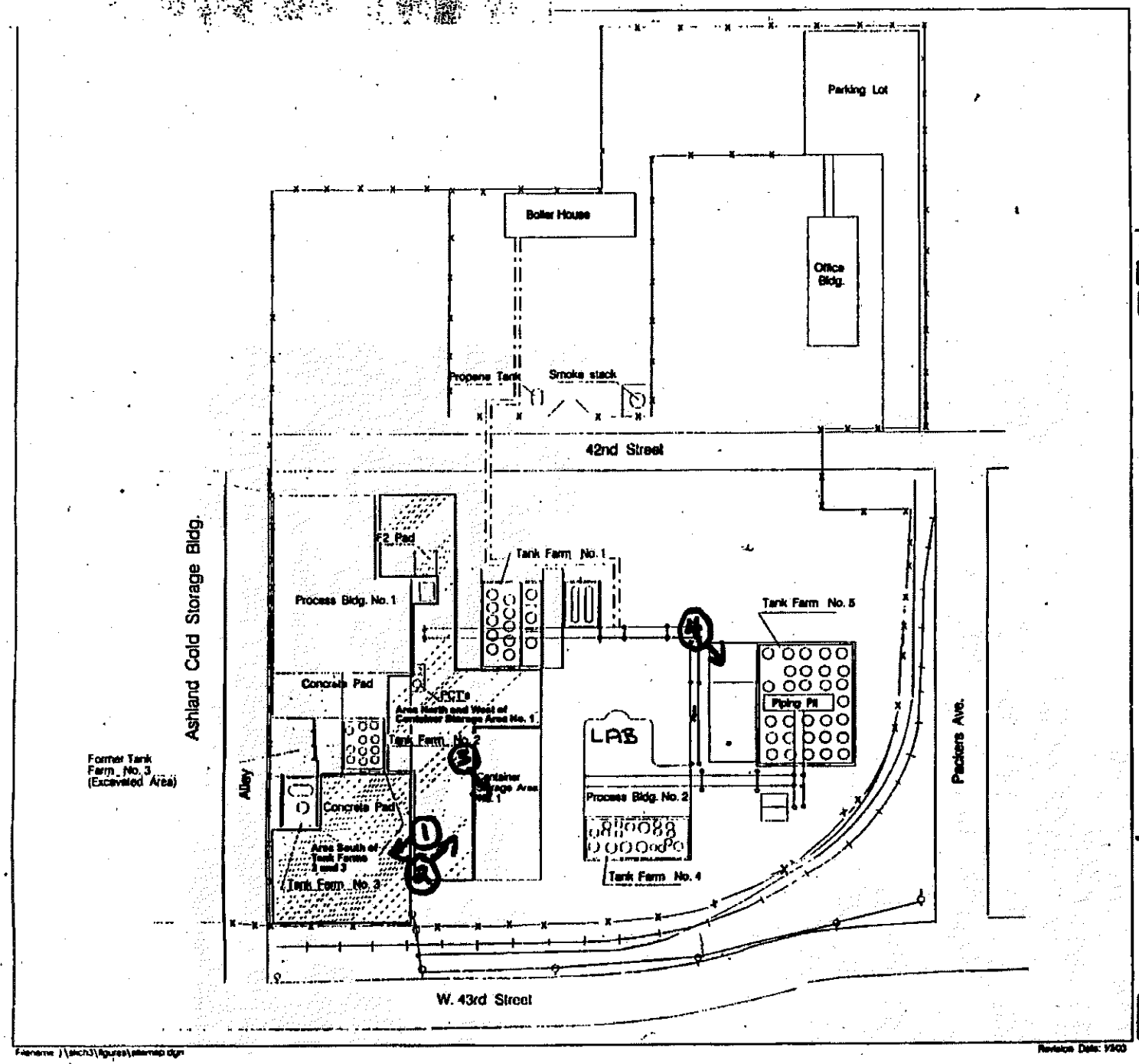
CHRSC has been conducting tank integrity and assessment on all tanks on site. Several of the tanks have been taken out and the site is in process of replacing these tanks. The facility stated, a phone conference was held with Mark Schollenberger (Permits - 217-524-3307) during which it was agreed the facility would submit a permit modification for all activities conducted and completed regarding tank replacements and new numerations.

At the time of the inspection, the facility was regulated as a generator, treatment and storage facility. All record keeping and notification requirements were in compliance with all applicable RCRA regulations and the Part B Permit requirements.

HAZARDOUS WASTE DISPOSITION FORM

Facility Name:	Clean Harbors Recycling Services of Chicago, LLC	**USEPA ID #:**	ILD005450697
Inspection Date:	December 3, 2009	**IEPA ID #:**	0316000053

Waste Name	Generating Process	Last Analysis Date	USEPA HW #	On Notif.? (8700-12)	On Part A? (3510-3 or 8700-23)	On Annual Report for Years:			Amount On-Site	Gener-ation Rate	Last Mani-fest Date	Disposition
						2008	2007	2006				
Still Bottoms	Distillation Process	every shipment	F001-F002 D001-X	☒	☒	☒	☒	☒	15,804 gallons	37,719 gallons month	10/23/09	Clean Harbors Canada Inc., Corunna, ON
Hazardous Waste Solids	From spills, clean-ups processing filters	every shipment	F001 D001	☒	☒	☒	☒	☒	1/55 gallon drum	11/55 gallon drums month	10/30/09	Clean Harbors El Dorado LLC., El Dorado, AR
Flammable Liquid	Process water	every shipment	D001	☒	☒	☒	☒	☒	4,768 gallons	5,942 gallons month	10/08/09	Clean Harbors Recycling Services of Ohio LLC., Hebron, OH
Waste Mercury Bulbs (Universal Waste)	On-site Maintenance	knowledge	D009	☒	☒	☒	☒	☒	45 various size bulbs	Varies	1/9/09	Clean Harbors El Dorado LLC, El Dorado, AR
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				



N

100 0 100

SCALE IN FEET

Legend

- Fenceline – Property Boundary
- Engineered Barrier
- Approximate SWMU Areas

photos ♂

Clean Harbors

Chicago Recycle Center

0316000053

ILD005450697

December 3, 09

LTI Environmental Engineering
A Division of Limno-Tech, Inc.
501 Avis Dr, Ann Arbor, MI 48108

Filename: J:\slich3\figures\sitemap.dgn

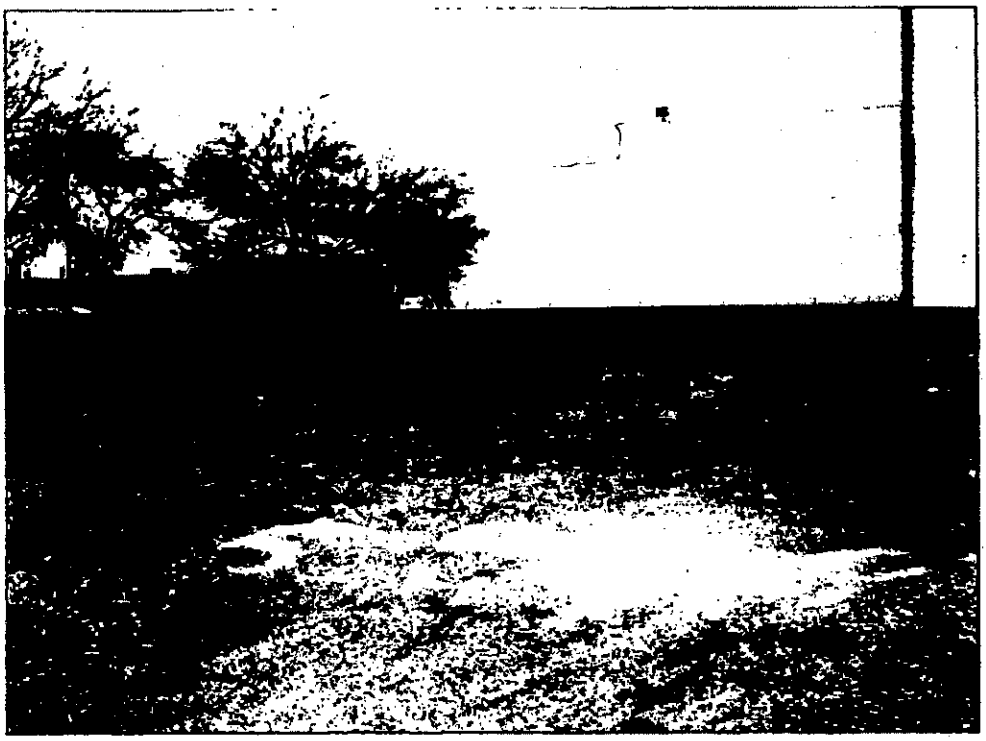
Revision Date: 1/3/03

Illinois Environmental Protection Agency
Bureau of Land
Division of Land Pollution Control

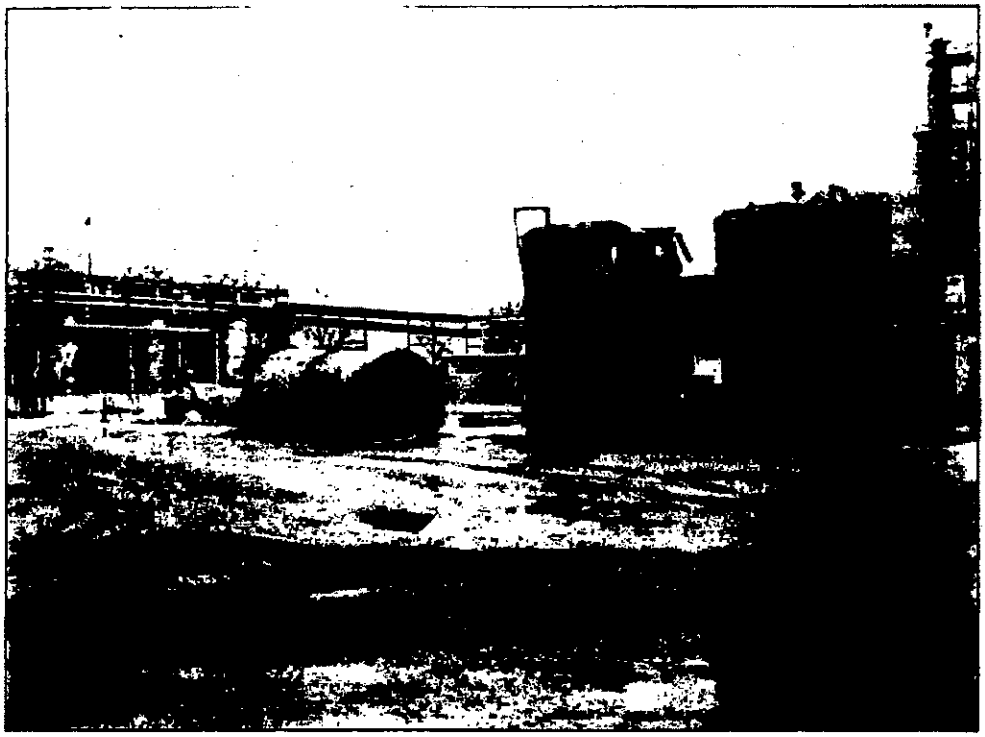
0316000053 — Cook County
Chicago/Clean Harbors RC Services of Chicago, LLC
FOS File

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12032009-[Exp. #].jpg



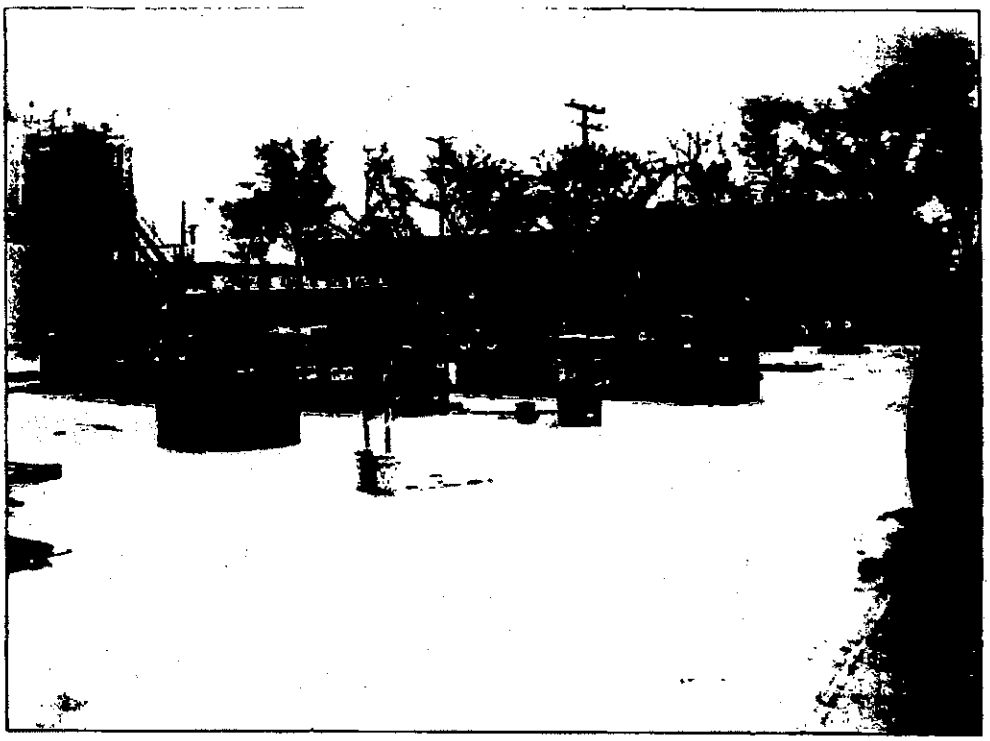
Date: 12/3/2009
Time: 9:45am-1:30pm
Direction: SW
Photo by: A. VanOrden
Exposure #: 01
Comments:
Low area where previous excavated soils from on-site activities placed.



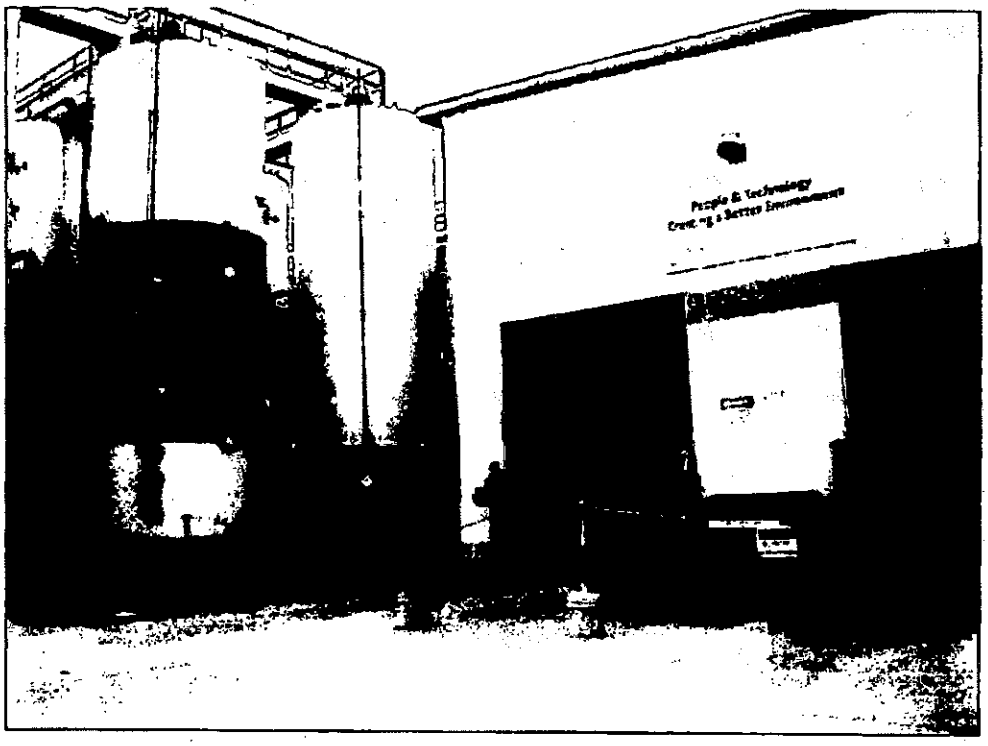
Date: 12/3/2009
Time: 9:45am-1:30pm
Direction: NE
Photo by: A. VanOrden
Exposure #: 02
Comments:
Tanks for disposal

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12032009-[Exp. #].jpg



Date: 12/3/2009
Time: 9:45am-1:30pm
Direction: SE
Photo by: A. VanOrden
Exposure #: 03
Comments:
Container storage area



Date: 12/3/2009
Time: 9:45am-1:30pm
Direction: SE
Photo by: A. VanOrden
Exposure #: 04
Comments:
View of Truck station #1 next to Tank Farm #5

COMPLETED DATE: 12/15/2008

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND / FIELD OPERATIONS SECTION

RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #:	ILD005450697			BOL ID #:	0316000053
Facility Name:	Clean Harbors Recycling Services of Chicago, LLC			Phone #:	773-247-2828
Location	1445 W 42nd Street			County:	Cook
City:	Chicago	State:	Illinois	Zip Code:	60609
Region:	Des Plaines	Inspection Date:	12/9/2008	Time:	9:30am-12:00pm
Weather:	Sleet/30's				

FACILITY TYPE

RECEIVED

Notified As:	G, TS	Regulated As:	G, TS

DEC 29 2008

INSPECTION TYPE

IEPA/BOL

CEI: ☒ GME: ☐ OAM: ☐ NRR: ☐ CSE: ☐ CAO: ☐ FUI to:

FCI (Other): CCI: ☐ CSI: ☐

NOTIFICATION DATES (EPA 8700-12)

Initial: Subsequent: 2/1/2008

PART A PERMIT DATES (EPA 3510-3 OR EPA 8700-23)

Initial: Amended: 2/1/2008 Withdrawn:

PART B PERMIT

(Check one if applicable) Application Submitted? ☐ Permit Issued? ☒ Date: 3/4/2005

ACTIVE ENFORCEMENT

Date facility referred to: USEPA: IAGO: County State's Attorney:

ACTIVE ENFORCEMENT ORDERS

CACO:	CAFO:	Federal Court Order:
Consent Decree:	IPCB Order:	State Court Order:

RELEASABLE

JAN 08 2009

REVIEWER MD

TSD Facility Activity Summary

Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during inspection?	Exempt per 35 IAC Sec:
S01	☒	☒	☒	☐	☒	
S02	☒	☒	☒	☐	☒	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	
	☐	☐	☐	☐	☐	

Owner				Operator			
Name:	Clean Harbors Recycling Services of Chicago, LLC			**Name:**	Clean Harbors Recycling Services of Chicago, LLC		
Address:	42 Longwater Drive (PO Box 9149)			**Address:**	1445 W 42nd Street		
City:	Norwell			**City:**	Chicago		
State:	MA	**Zip Code:**	02061	**State:**	IL	**Zip Code:**	60609
Phone #:	803-691-3426			**Phone #:**	773-247-2828		

Person(s) Interviewed	Title	Phone #
Alfred Aghapour	General Manager	773-247-2828X1467
Gary Malinowski	Sr. Compliance Manager	773-247-2828
Joseph Nowosielski	Operations Manager	773-247-2828

Inspection Participants	Agency/Bureau	Phone #
*Anna Van Orden	IEPA/BOL	847-294-4068

***Report prepared by this person.**

Summary of Apparent Violations

Section	X	Section	X	Section	X
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐
	☐		☐		☐

X = Continuing Violations

RCRA Generator Violations Checklist

IEPA #: 0316000053 Inspection Date: 12/9/2008

Section	V	C	R
Part 722			
722.111	☐	☐	☐
722.112(a)	☐	☐	☐
722.112(c)	☐	☐	☐
722.120(a)(1)	☐	☐	☐
722.120(b)	☐	☐	☐
722.120(d)	☐	☐	☐
722.121(a)	☐	☐	☐
722.121(b)(7)	☐	☐	☐
722.122	☐	☐	☐
722.123(a)	☐	☐	☐
722.123(b)	☐	☐	☐
722.123(c)	☐	☐	☐
722.127	☐	☐	☐
722.130	☐	☐	☐
722.131	☐	☐	☐
722.132	☐	☐	☐
722.133	☐	☐	☐
722.134(m)	☐	☐	☐
722.140(a)	☐	☐	☐
722.140(b)	☐	☐	☐
722.140(c)	☐	☐	☐
722.140(d)	☐	☐	☐
722.141(a)	☐	☐	☐
722.141(b)	☐	☐	☐
722.142(a)(1)	☐	☐	☐
722.142(a)(2)	☐	☐	☐
722.143	☐	☐	☐
Part 808 – Special Waste Determination			
808.121(a)	☐	☐	☐

LQG Permit Exemption Criteria

The generator must comply with certain sections of Parts 722, 725, and 728. Mark the checkboxes of any unmet criteria, but cite the violation as 703.121(a) and (b), not as the unmet criteria.

703.121(a)	☐	☐	☐
703.121(b)	☐	☐	☐

LQG Permit Exemption Criteria

Section

Part 722
- ☐ 722.134(a)
- ☐ 722.134(a)(1)
- ☐ 722.134(a)(2)
- ☐ 722.134(a)(3)
- ☐ 722.134(a)(4)
- ☐ 722.134(c)
- ☐ 722.134(g)
- ☐ 722.134(j)

Part 725

725.Subpart B
- ☐ 725.116(a)
- ☐ 725.116(b)
- ☐ 725.116(c)
- ☐ 725.116(d)
- ☐ 725.116(e)

725.Subpart C
- ☐ 725.131
- ☐ 725.132
- ☐ 725.133
- ☐ 725.134
- ☐ 725.135
- ☐ 725.137

725.Subpart D
- ☐ 725.151(a)
- ☐ 725.151(b)
- ☐ 725.152(a)
- ☐ 725.152(c)
- ☐ 725.152(d)
- ☐ 725.152(e)
- ☐ 725.152(f)
- ☐ 725.153
- ☐ 725.154
- ☐ 725.155
- ☐ 725.156

725.Subpart I
- ☐ 725.271
- ☐ 725.272
- ☐ 725.273(a)
- ☐ 725.273(b)
- ☐ 725.274
- ☐ 725.276
- ☐ 725.277(a)
- ☐ 725.277(b)
- ☐ 725.277(c)
- ☐ 725.278

Section

725.Subpart J
- ☐ 725.291(a)
- ☐ 725.291(b)
- ☐ 725.291(c)
- ☐ 725.291(d)
- ☐ 725.292(a)
- ☐ 725.292(g)
- ☐ 725.293(a)
- ☐ 725.293(b)
- ☐ 725.293(c)
- ☐ 725.293(d)
- ☐ 725.293(e)
- ☐ 725.293(f)
- ☐ 725.293(i)
- ☐ 725.294(a)
- ☐ 725.294(b)
- ☐ 725.295(a)
- ☐ 725.295(b)
- ☐ 725.295(c)
- ☐ 725.296
- ☐ 725.296(d)
- ☐ 725.296(e)
- ☐ 725.296(f)
- ☐ 725.297(a)
- ☐ 725.297(b)
- ☐ 725.297(c)
- ☐ 725.298(a)
- ☐ 725.298(b)
- ☐ 725.299
- ☐ 725.300
- ☐ 725.301(b)
- ☐ 725.301(c)
- ☐ 725.301(d)
- ☐ 725.301(e)
- ☐ 725.301(f)
- ☐ 725.302

725.Subpart AA
- ☐ 725.932(a)
- ☐ 725.932(b)
- ☐ 725.932(c)
- ☐ 725.932(d)
- ☐ 725.933(a)
- ☐ 725.933(b)
- ☐ 725.933(c)
- ☐ 725.933(d)

Section

725. AA, cont.
- ☐ 725.933(e)
- ☐ 725.933(f)
- ☐ 725.933(g)
- ☐ 725.933(h)
- ☐ 725.933(i)
- ☐ 725.933(j)
- ☐ 725.933(k)
- ☐ 725.934
- ☐ 725.935(a)
- ☐ 725.935(b)

725.Subpart BB
- ☐ 725.950(c)
- ☐ 725.950(d)
- ☐ 725.952(a)
- ☐ 725.952(c)
- ☐ 725.953(a)
- ☐ 725.953(b)
- ☐ 725.953(c)
- ☐ 725.953(d)
- ☐ 725.953(e)
- ☐ 725.953(g)
- ☐ 725.954(a)
- ☐ 725.954(b)
- ☐ 725.955(a)
- ☐ 725.955(b)
- ☐ 725.956(a)
- ☐ 725.956(b)
- ☐ 725.957(a)
- ☐ 725.957(c)
- ☐ 725.957(d)
- ☐ 725.958(a)
- ☐ 725.958(c)
- ☐ 725.960
- ☐ 725.961
- ☐ 725.962
- ☐ 725.963
- ☐ 725.964(b)
- ☐ 725.964(c)
- ☐ 725.964(d)
- ☐ 725.964(e)
- ☐ 725.964(f)
- ☐ 725.964(g)
- ☐ 725.964(h)
- ☐ 725.964(i)

Section

725. BB, cont.
- ☐ 725.964(j)
- ☐ 725.964(k)
- ☐ 725.964(l)
- ☐ 725.964(m)

725.Subpart CC
- ☐ 725.982(a)(1)
- ☐ 725.982(b)(1)
- ☐ 725.982(c)
- ☐ 725.983(b)
- ☐ 725.984(a)(1)
- ☐ 725.984(a)(2)
- ☐ 725.984(a)(3)
- ☐ 725.984(a)(4)
- ☐ 725.984(b)(1)
- ☐ 725.984(b)(2)
- ☐ 725.984(c)(1)
- ☐ 725.984(c)(2)
- ☐ 725.984(c)(3)
- ☐ 725.984(c)(4)
- ☐ 725.984(d)
- ☐ 725.985(b)
- ☐ 725.985(c)(1)
- ☐ 725.985(c)(2)
- ☐ 725.985(c)(3)
- ☐ 725.985(c)(4)
- ☐ 725.985(d)
- ☐ 725.985(e)
- ☐ 725.985(f)
- ☐ 725.985(g)
- ☐ 725.985(h)
- ☐ 725.985(i)
- ☐ 725.985(j)
- ☐ 725.985(k)
- ☐ 725.986(b)
- ☐ 725.986(c)(1)
- ☐ 725.986(c)(2)
- ☐ 725.986(d)
- ☐ 725.986(e)
- ☐ 725.986(f)
- ☐ 725.986(g)
- ☐ 725.987(b)(1)
- ☐ 725.987(b)(2)
- ☐ 725.987(c)(1)
- ☐ 725.987(c)(2)
- ☐ 725.987(c)(3)
- ☐ 725.987(c)(4)

V = Violation Observed; C = Continuing; R = Resolved | **NA = Not Applicable; NE = Not Evaluated**

WD
1/6/2009

RCRA Generator Violations Checklist

IEPA #: 0316000053 Inspection Date: 12/9/2008

LQG Permit Exemption Criteria		*Section*	*V C R*	*Section*	*V C R*
Section	*Section*	*LQG Closure Requirements*		*Additional Requirements*	
725.CC, cont.	*725.Subpart DD*	725.211	☐☐☐		☐☐☐
☐ 725.987(c)(5)	☐ 725.1101(a)(1)	725.214	☐☐☐		☐☐☐
☐ 725.987(d)(1)	☐ 725.1101(a)(2)	*Additional Requirements*			☐☐☐
☐ 725.987(d)(2)	☐ 725.1101(a)(3)		☐☐☐		☐☐☐
☐ 725.987(d)(3)	☐ 725.1101(a)(4)		☐☐☐		☐☐☐
☐ 725.987(d)(4)	☐ 725.1101(b)(1)		☐☐☐		☐☐☐
☐ 725.987(e)(1)	☐ 725.1101(b)(1)		☐☐☐		☐☐☐
☐ 725.987(e)(2)	☐ 725.1101(b)(2)		☐☐☐		☐☐☐
☐ 725.987(e)(6)	☐ 725.1101(b)(2)(A)		☐☐☐		☐☐☐
☐ 725.987(f)	☐ 725.1101(b)(2)(B)		☐☐☐		☐☐☐
☐ 725.987(g)	☐ 725.1101(b)(3)		☐☐☐		☐☐☐
☐ 725.987(h)	☐ 725.1101(b)(3)(B)		☐☐☐		☐☐☐
☐ 725.988(b)(1)	☐ 725.1101(b)(3)(C)		☐☐☐		☐☐☐
☐ 725.988(b)(2)	☐ 725.1101(c)(1)(A)		☐☐☐		☐☐☐
☐ 725.988(b)(3)	☐ 725.1101(c)(1)(B)		☐☐☐		☐☐☐
☐ 725.988(b)(4)	☐ 725.1101(c)(1)(C)		☐☐☐		☐☐☐
☐ 725.988(c)(1)(A)	☐ 725.1101(c)(1)(D)		☐☐☐		☐☐☐
☐ 725.988(c)(1)(B)	☐ 725.1101(c)(2)		☐☐☐		☐☐☐
☐ 725.988(c)(1)(C)	☐ 725.1101(c)(3)		☐☐☐		☐☐☐
☐ 725.988(c)(2)	☐ 725.1101(c)(3)(A)		☐☐☐		☐☐☐
☐ 725.988(c)(2)(A)	☐ 725.1101(d)		☐☐☐		☐☐☐
☐ 725.988(c)(2)(D)	☐ 725.1102		☐☐☐		☐☐☐
☐ 725.988(c)(2)(E)			☐☐☐		☐☐☐
☐ 725.988(c)(2)(F)	*Part 728*		☐☐☐		☐☐☐
☐ 725.988(c)(3)	☐ 728.107(a)(5)		☐☐☐		☐☐☐
☐ 725.988(c)(3)(A)			☐☐☐		☐☐☐
☐ 725.988(c)(3)(B)			☐☐☐		☐☐☐
☐ 725.988(c)(4)			☐☐☐		☐☐☐
☐ 725.988(c)(5)(A)			☐☐☐		☐☐☐
☐ 725.988(c)(5)(B)			☐☐☐		☐☐☐
☐ 725.988(c)(5)(C)			☐☐☐		☐☐☐
☐ 725.988(c)(5)(D)			☐☐☐		☐☐☐
☐ 725.988(c)(5)(E)			☐☐☐		☐☐☐
☐ 725.988(c)(6)			☐☐☐		☐☐☐
☐ 725.988(c)(7)			☐☐☐		☐☐☐
☐ 725.989(a)			☐☐☐		☐☐☐
☐ 725.989(b)			☐☐☐		☐☐☐
☐ 725.990(a)			☐☐☐		☐☐☐
☐ 725.990(b)(1)			☐☐☐		☐☐☐
☐ 725.990(b)(2)			☐☐☐		☐☐☐
☐ 725.990(c)			☐☐☐		☐☐☐
☐ 725.990(d)			☐☐☐		☐☐☐
☐ 725.990(e)			☐☐☐		☐☐☐
☐ 725.990(f)			☐☐☐		☐☐☐
☐ 725.990(g)			☐☐☐		☐☐☐
☐ 725.990(i)			☐☐☐		☐☐☐
☐ 725.990(j)(1)			☐☐☐		☐☐☐
☐ 725.990(j)(2)			☐☐☐		☐☐☐

V = Violation Observed; C = Continuing; R = Resolved | **NA = Not Applicable; NE = Not Evaluated**

1/6/2009

0316000053 – Cook County
Clean Harbors Recycling Services of Chicago, LLC
ILD005450697
FOS
Date of Inspection: December 9, 2008
Inspector: Anna Van Orden
Page 1

RECEIVED
DEC 29 2008
IEPA/BOL

NARRATIVE
By Anna Van Orden

Clean Harbors Recycling Services of Chicago, LLC (CHRSC) purchased all assets included real property, and transfer of the Illinois state solid and hazardous waste operating permits from Safety-Kleen Systems, Inc for the Chicago Recycling operations, located at 1445 W 42nd St., in Chicago, IL on March 7, 2008. The type of business, types of chemicals processed and stored, and the capacity of the facility remained essentially the same.

The Chicago Recycling Center (CRC) is a solvent recycling facility, which specializes in the recovery and recycling of used organic chemicals, solvents and associated wastes. The facility also functions as a service center, which collects, and stores used solvents and other wastes. The materials arrive at the facility in containers (e.g., drums and bulk) and can be stored, treated, and/or recycled. The processes used at the facility include evaporation, distillation, fractionation, liquid extraction, mixing, stripping, blending, drying, filtration, and neutralization.

The wastes accepted include organic acids, chlorinated and fluorinated hydrocarbons, amines, alcohols, aliphatic and aromatic compounds, waste oils, and paint wastes. Industries served by CRC include chemical manufacturers, pharmaceutical manufacturers, paint manufacturers, automobile, appliance and electronic manufacturers, foundries, metal fabrication shops, maintenance shops, and aircraft manufacturers in Illinois and other states.

Solid and liquid wastes are generated by solvent recovery operations. Distillation and fractionation of waste solvents generate still bottoms, which are generally a heavy, oily waste with significant BTU value and which may contain up to 40 percent solids. These wastes are shipped off site to be processed into industrial furnace fuel. Solid wastes with no significant BTU value or which otherwise cannot be processed into fuel are shipped off site for incineration.

Liquid-liquid extraction, decanting and drying of aqueous/solvent mixtures and distillation of some wastes with high water content generate wastewater that may contain organic chemical or metals. Wastewater generated is piped to the sanitary sewer system under approvals from the Metropolitan Water Reclamation District of Greater Chicago.

RELEASABLE
JAN 08 2009
REVIEWER MD

RECEIVED
DEC 2 9 2008
IEPA/BOL

HAZARDOUS WASTE UNITS

TYPE	ACTIVE	CLOSED	WASTES	CAPACITY	SECONDARY CONTAINMENT
S01	Y	N	Numerous See Part B Permit	108,900 Gallons	Diked; Concrete; Catch Basin
S02	Y	N	Numerous See Part B Permit	1,119,865 Gallons	Diked; Concrete; Vault with coating on concrete

HAZARDOUS WASTE GENERATED

Still Bottoms – F001-F002, and D001-D00X

- Residual material from the distillation process
- Shipped to Clean Harbors Canada Inc, Corunna, ON for fuel recovery **(last shipment 12/4/08)**
- Rate of generation: ~32,017 gallons per month
- Amount on site: 8,206 gallons

Hazardous Waste Solids – F001, D001

- Waste generated by various methods:
  Cleaning out tanks, used oil dry, hose drippings, cut drums in order to remove solid material, used filters from filtrating material from waste and product tanks.
- Shipped to Clean Harbors El Dorado LLC, El Dorado, AR **(last shipment 11/26/08)**
- Rate of generation: 7/55gallon drums per month
- Amount on site: 1/55 gallon drum

Flammable Liquid – D001

- Hazardous process water
- Shipped to Clean Harbors Recycling Services of Ohio, LLC, Hebron, OH **(last shipment 11/06/08)**
- Rate of generation: ~5,942 gallons per month
- Amount on site: 13,127 gallons

Waste Combustible Liquid – D039

- Two Parts washers
- Shipped to Safety-Kleen Systems in Dolton, IL **(final shipment 8/21/08)**
- Rate of generation: no longer generated
- Amount on site: 0

Waste Corrosive Liquid (basic, organic) – D006, D018, D027, D039, D040

- One Immersion Cleaner Unit
- Shipped to Safety-Kleen Systems in Dolton, IL **(final shipment 8/21/08)**
- Rate of generation: no longer generated
- Amount on site: 0

Waste Mercury Bulbs – D009 (Universal Waste)

- Generated from on-site maintenance
- Amount on-site:
  - 71/4' bulbs
  - 5/8' bulbs
  - 33/Misc. bulbs
- To be shipped to Clean Harbors El Dorado LLC, El Dorado, AR

SPECIAL NON-HAZARDOUS WASTE GENERATED

Cement with re-bar and soil

- Generated from on site construction
- Shipped to Waste Management Liberty Landfill in Monticello, IN
- Total shipped: 257.11 tons (between 10/27/08 and 10/29/08)

Used Drums

- Shipped to Meyer Drum in Chicago, IL for reconditioning
- 190 drums (8,550 lbs) on 3/12/08

OBSERVATIONS

CHRSC has been conducting tank integrity and assessment on all tanks on site. Several of the tanks have been taken out and the site is in process of replacing these tanks.

At the time of the inspection, the facility was regulated as a generator, treatment and storage facility. All record keeping and notification requirements were in compliance with all applicable RCRA regulations and the Part B Permit requirements.

HAZARDOUS WASTE DISPOSITION FORM

Facility Name:	Clean Harbors Recycling Services of Chicago, LLC	**USEPA ID #:**	ILD005450697
Inspection Date:	December 9, 2008	**IEPA ID #:**	0316000053

Waste Name	Generating Process	Last Analysis Date	USEPA HW #	On Notif.? (8700-12)	On Part A? (3510-3 or 8700-23)	On Annual Report for Years:			Amount On-Site	Gener-ation Rate	Last Mani-fest Date	Disposition
						2007	2006	2005				
Still Bottoms	Distillation Process	every shipment	F001-F002 D001-X	☒	☒	☒	☒	☒	8,206 gallons	32,017 gallons month	12/04/08	Clean Harbors Canada Inc., Corunna, ON
Hazardous Waste Solids	From spills, clean-ups processing filters	every shipment	F001 D001	☒	☒	☒	☒	☒	55 gallon	7/55 gallon drums month	11/26/08	Clean harbors El Dorado LLC., El dorado, AR
Flammable Liquid	Process water	every shipment	D001	☒	☒	☒	☒	☒	13,127 gallons	5,942 gallons month	11/06/08	Clean harbors Recycling Services of Ohio LLC., Hebron, OH
Waste Combustible Liquid	Two Parts Washers	every shipment	D039	☒	☒	☒	☒	☒	0	No longer generat ed	8/21/08	Safety-Kleen Systems in Dolton, IL
Waste Corrosive Liquid (basic,organic)	One Immersion Cleaner Unit	every shipment	D006,D018 D027,D039 D040	☒	☒	☒	☒	☒	0	No longer generat ed	8/21/08	Safety-Kleen Systems in Dolton, IL
Waste Mercury Bulbs	Maintenance	knowledge	D009	☒	☒	☒	☒	☒	45 various size bulbs	Varies	2007	Clean Lites RC in Mason, MI
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				
				☐	☐	☐	☐	☐				

RCRA Part B Inspection Site # 0316000053

Section I: Containers

	Compliance
A. Hazardous Waste Management Units	(YES) NO
B. Waste Identification	(YES) NO
C. Condition of Containers	(YES) NO
D. Compatibility of Containers	(YES) NO
E. Management of Containers	(YES) NO
F. Inspections	(YES) NO
G. Containment	(YES) NO
H. Ignitable or Reactive Wastes	(YES) NO
I. Special Requirements for Incompatible Wastes	(YES) NO
J. General Operating Requirements	(YES) NO
K. Closure Requirements	(YES) NO

Description of violation:

Section II: Tank Systems

	Compliance
B. Waste Identification	(YES) NO
C. Containment and Detection of Releases	(YES) NO
D. General Construction Requirements	(YES) NO
E. General Operating Requirements	(YES) NO

F. Tank System Certification	(YES) NO
G. Response to Leaks or Spills	(YES) NO
H. Inspections	(YES) NO
I. Reporting and Recordkeeping	(YES) NO
J. Ignitable and Reactive Wastes	(YES) NO
K. Special Requirements for Incompatible Wastes	(YES) NO
L. Closure	(YES) NO

Description of violations:

Section III: Reporting and Notification Requirements

	Compliance
Containers	(YES) NO
Tank Systems	(YES) NO
Corrective Action	(YES) NO
Standard Conditions	(YES) NO
Additional Special Conditions	(YES) NO

Description of violations:

Section IV: Corrective Action

	Compliance
E. Financial Assurance for Corrective Action	(YES) NO

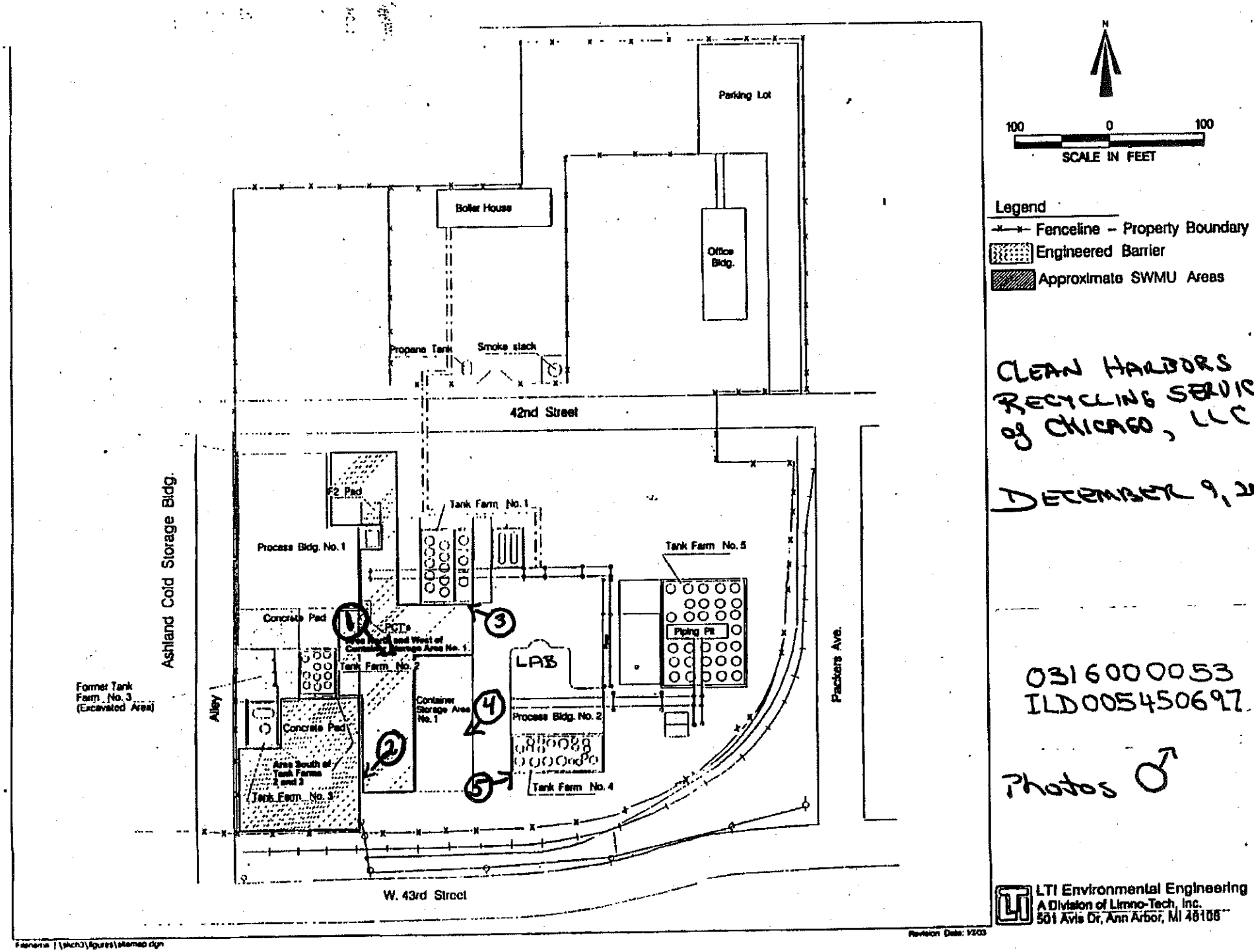
F. Notification Requirements for and Assessment of Newly-Identified Solid Waste Management Unit(s)	(YES) NO
G. Future Releases from SWMUs	(YES) NO
H. Completion of Corrective Action	(YES) NO

Description of violations:

Section V: Standard Conditions

	Compliance
A. General Requirements	(YES) NO
B. General Facility Standards	(YES) NO
C. Preparedness and Prevention	(YES) NO
D. Contingency Plan	(YES) NO
E. Manifest System, Recordkeeping and Reporting	(YES) NO
F. Closure	(YES) NO
G. Land Disposal Restrictions	(YES) NO

Description of violations:



CLEAN HARBORS RECYCLING SERVICES of CHICAGO, LLC.

DECEMBER 9, 2008

0316000053
ILD005450697

Photos ♂

LTI Environmental Engineering
A Division of Limno-Tech, Inc.
501 Avis Dr, Ann Arbor, MI 48108

Filename: I:\skch3\figures\sitemap.dgn

Revision Date: 1/2/03

The appearance of some of the images following this page is due to

Poor Quality Original Documents

and not the scanning or filming processes.

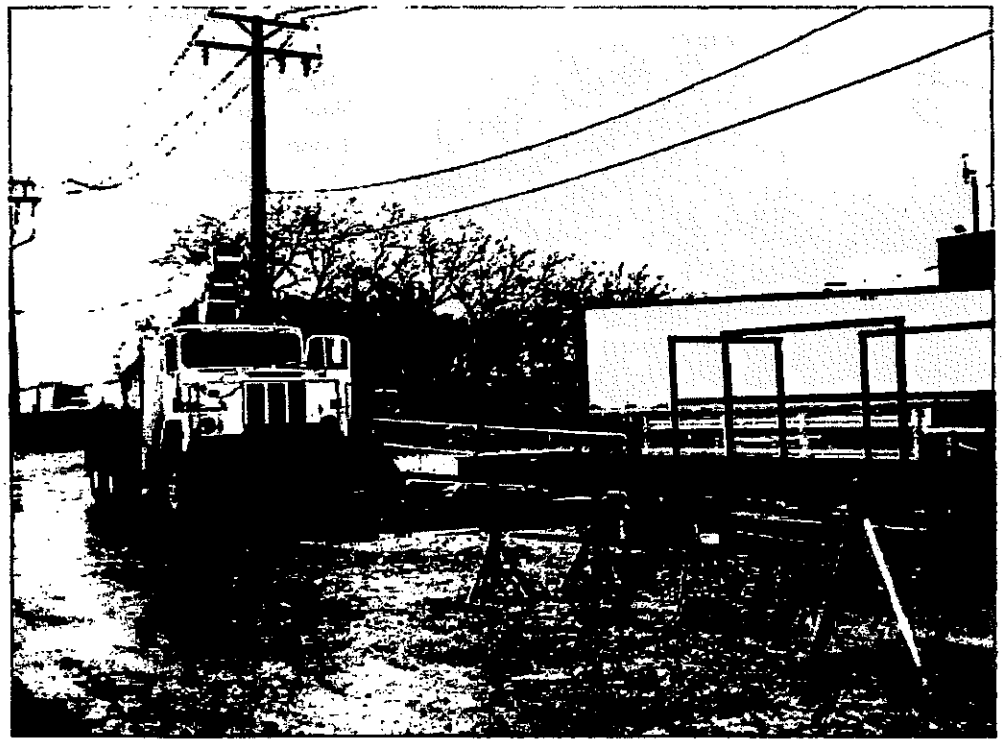
Com Microfilm Company
(217) 525-5860

J:\toolbox\poorDocs.doc

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12092008-[Exp. #].jpg

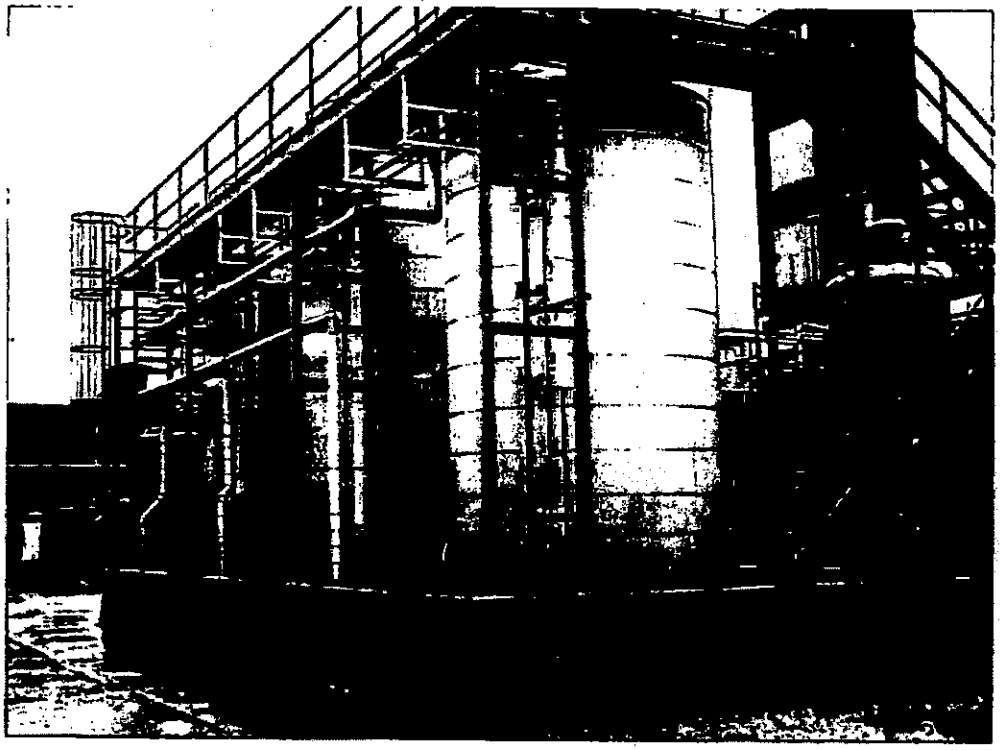
Date: 12/9/2008
Time: 9:30am-12:00pm
Direction: SE
Photo by: A. Van Orden
Exposure #: 001
Comments:
Replacement tanks



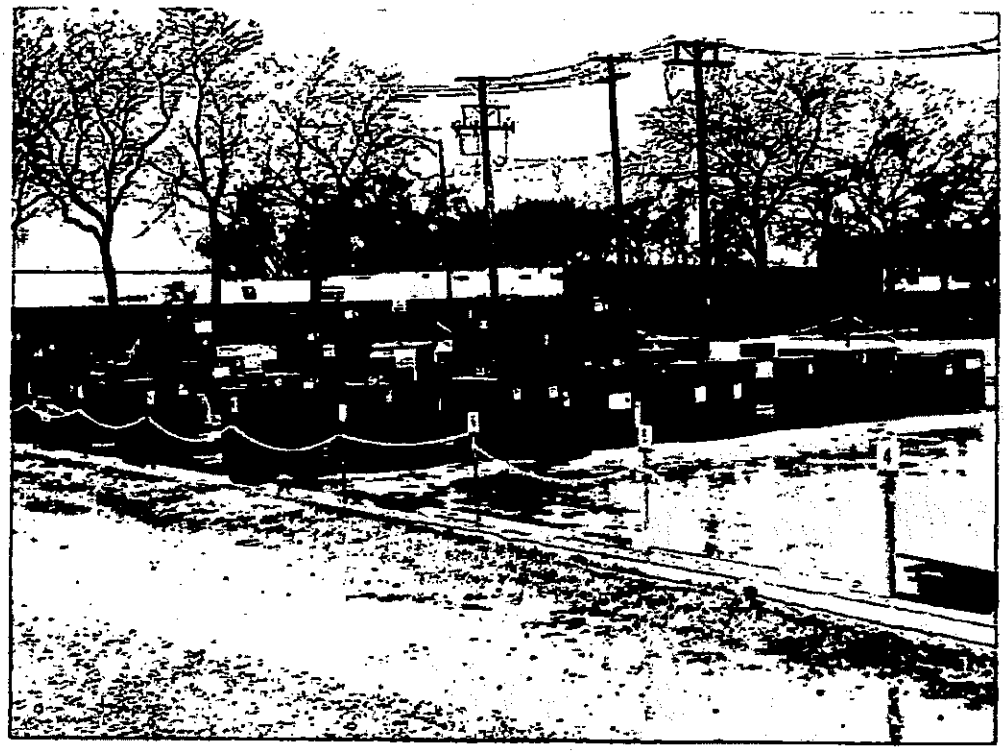
Date: 12/9/2008
Time: 9:30am-12:00pm
Direction: SW
Photo by: A. Van Orden
Exposure #: 002
Comments:
Excavated soil from on-site to be used on-site.

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12092008-[Exp. #].jpg



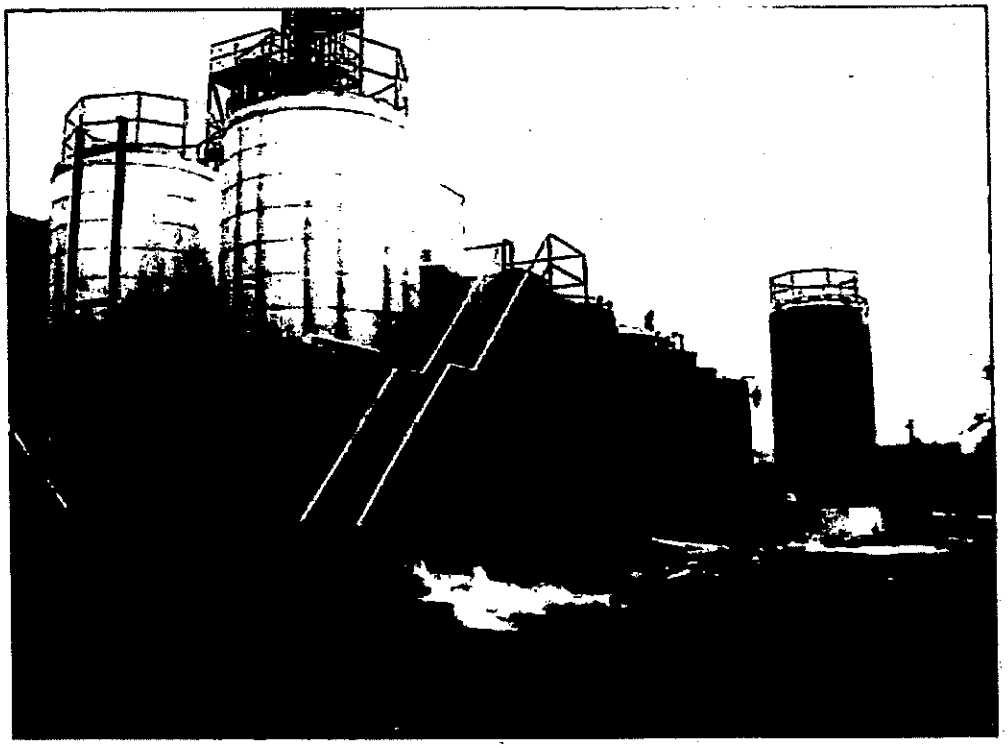
Date: 12/9/2008
Time: 9:30am-12:00pm
Direction: NW
Photo by: A. Van Orden
Exposure #: 003
Comments:
New product tanks located south of Tank Farm #1.



Date: 12/9/2008
Time: 9:30am-12:00pm
Direction: SW
Photo by: A. Van Orden
Exposure #: 004
Comments:
Container storage area.

DIGITAL PHOTOGRAPHS

File Names: 0316000053 ~ 12092008-[Exp. #].jpg



Date: 12/9/2008
Time: 9:30am-12:00pm
Direction: NE
Photo by: A. Van Orden
Exposure #: 005
Comments:
Tank replacements in Tank Farm #4.

Date: 12/9/2008
Time: 9:30am-12:00pm
Direction:
Photo by: A. Van Orden
Exposure #:
Comments:

NO PHOTO

Fw: Sawyer, MI tanker truck explosion - July 2011
Mark Palermo to: Diane Sharrow 10/19/2011 03:33 PM

From: Mark Palermo/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA

Diane--- Here's what I got from Superfund. Mark
----- Forwarded by Mark Palermo/R5/USEPA/US on 10/19/2011 03:32 PM ----

From: Theresa Holz/R5/USEPA/US
To: Mark Palermo/R5/USEPA/US@EPA
Date: 10/19/2011 03:26 PM
Subject: Re: Sawyer, MI tanker truck explosion - July 2011

Mark,

Superfund is not planning to pursue cost recovery for this incident, no attorney was assigned to this site.

I do have analytical information pertaining to the load that was carried in this tanker truck. I'm attaching analytical provided by Clean Harbors and MDEQ. Not all the analytical is directly from the tanker truck, its a bit convoluted so please feel free to contact me to discuss. I do not have the exact information on where each MDEQ sample was collected at this time but I can retrieve that information if needed.

If you need to reach me I am currently in the field, my cell number is 312 802 0676.

Please let me know if you have additional questions.

Theresa Holz
On-Scene Coordinator
USEPA Region 5
Emergency Response Branch
77 W. Jackson
Chicago, Il 60604
312 886 6845

-----Mark Palermo/R5/USEPA/US wrote: -----
To: Theresa Holz/R5/USEPA/US@EPA
From: Mark Palermo/R5/USEPA/US
Date: 10/14/2011 01:07PM
Cc: Diane Sharrow/R5/USEPA/US@EPA
Subject: Sawyer, MI tanker truck explosion - July 2011

Theresa:

Diane Sharrow and I are investigating possible RCRA violations associated with the loading of hazardous wastes in a tanker truck that exploded in Sawyer Michigan in July of this year. I understand you were the OSC that responded for EPA on the resultant spill. We were wondering if Superfund was pursuing cost recovery with respect to this spill, and if so, who would be the attorney on the cost recovery that I could speak to. If not, was there any information you gathered or know of beyond what is provided in the POLREPs concerning what chemical constituents were in the tanker and if they matched what was identified in the manifests?

Any information you have would be appreciated.

Thanks, Mark 07-21-11 Lean Water Analytical Cover Sheet.pdf July 22-Product-DEQ Lab.pdf

LAB #: 111572
REPORT DATE: 7/21/11
SAMPLE DATE: 7/21/11

CleanHarbors
ENVIRONMENTAL SERVICES®
Clean Harbors Recycling Services of Chicago, LLC

ANALYTICAL REPORT

COMPANY NAME & LOCATION: Clean Harbors

MATERIAL IDENTIFICATION: Waste water

MANIFEST# 000039888MWI

SAMPLE-APPEARANCE: yellow liquid

OVEN NVR APPEARANCE:

PHASES no **%TOP** **% BOTTOM**

SOLUBLE IN WATER ? No

Specific Gravity 1.227
pH 13.30 by meter

NVR:		wt-%
WATER:	86.06	wt-%
Flash point:	No flash @ 141 F	
NaOH by titration:	14	wt-%

VOC s

COMPONENT NAME		
MEK	723	ppm
Ethanol	190	ppm
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
		wt-%
Others		wt-%

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY

P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Division: RD
Report to: BEN ZIMONT
MDEQ-RD-KALAMAZOO
7953 ADOBE ROAD
KALAMAZOO, MI 49009,

Total: $2,070.00

Lab Work Order # : E1070019
Work Site ID : LB041037
Site Name : CH TANKER/TA TRUCKSTOP-S
Received: 07/22/2011
Reported: 07/25/2011
Collected By: CLEAN HARBORS

Samples Received :

No:	Sample ID	Sample Description	Matrix:	Collection Date
01	AB78852	Tanker #1	WATER	07/22/2011
02	AB78853	Tanker #2	WATER	07/22/2011
03	AB78854	Tanker #3	WATER	07/22/2011
04	AB78855	Tanker #4	WATER	07/22/2011
05	AB78856	Tanker #5	WATER	07/22/2011
06	AB78857	Tanker #6	WATER	07/22/2011
07	AB78858	Pk Lot #1	WATER	07/22/2011
08	AB78859	Pk Lot #2	WATER	07/22/2011
09	AB78860	Pk Lot #3	WATER	07/22/2011

I certify that the analysis performed by the MDEQ Environmental Laboratory are accurate and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency and other appropriate regulatory agencies.

George L. Krisztian,
Acting Laboratory Director

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78852 Tanker #1

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	99.8			
SURROGATE	#Dibromofluoromethane#	87.5			
SURROGATE	#Toluene-d8#	102			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50		50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	250	5	50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78852 Tanker #1

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	250		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	160	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2500	5	50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78853 Tanker #2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.7			
SURROGATE	#Dibromofluoromethane#	97.7			
SURROGATE	#Toluene-d8#	99.7			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50		50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	250	5	50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78853 Tanker #2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	250		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2500	5	50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78854 Tanker #3

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	99.0			
SURROGATE	#Dibromofluoromethane#	99.8			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50		50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	250	5	50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78854 Tanker #3

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	250		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2500	5	50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78855 Tanker #4

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	98.3			
SURROGATE	#Dibromofluoromethane#	100			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50		50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	250	5	50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78855 Tanker #4

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	250		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2500	S	50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78856 Tanker #5

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.6			
SURROGATE	#Dibromofluoromethane#	101			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50		50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	250	5	50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78856 Tanker #5

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	250		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2500	5	50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78857 Tanker #6

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.8			
SURROGATE	#Dibromofluoromethane#	101			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	50		50
71-55-6	1,1,1-Trichloroethane	Not Detected	50		50
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	50		50
79-00-5	1,1,2-Trichloroethane	Not Detected	50		50
75-34-3	1,1-Dichloroethane	Not Detected	50		50
75-35-4	1,1-Dichloroethylene	Not Detected	50		50
87-61-6	1,2,3-Trichlorobenzene	Not Detected	250		50
96-18-4	1,2,3-Trichloropropane	Not Detected	50		50
526-73-8	1,2,3-Trimethylbenzene	Not Detected	50		50
120-82-1	1,2,4-Trichlorobenzene	Not Detected	250		50
95-63-6	1,2,4-Trimethylbenzene	Not Detected	50		50
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	250		50
106-93-4	1,2-Dibromoethane	Not Detected	50		50
95-50-1	1,2-Dichlorobenzene	Not Detected	50		50
107-06-2	1,2-Dichloroethane	Not Detected	50		50
78-87-5	1,2-Dichloropropane	Not Detected	50		50
108-67-8	1,3,5-Trimethylbenzene	Not Detected	50		50
541-73-1	1,3-Dichlorobenzene	Not Detected	50		50
106-46-7	1,4-Dichlorobenzene	Not Detected	50		50
78-93-3	2-Butanone (MEK)	Not Detected	250		50
591-78-6	2-Hexanone	Not Detected	250		50
91-57-6	2-Methylnaphthalene	Not Detected	250	X	50
67-64-1	2-Propanone (acetone)	Not Detected	1000		50
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	250		50
107-13-1	Acrylonitrile	Not Detected	250	Z5	50
71-43-2	Benzene	Not Detected	50		50
108-86-1	Bromobenzene	Not Detected	50		50
74-97-5	Bromochloromethane	Not Detected	50		50
75-27-4	Bromodichloromethane	Not Detected	50		50
75-25-2	Bromoform	Not Detected	50		50
74-83-9	Bromomethane	Not Detected	250	5	50
75-15-0	Carbon disulfide	Not Detected	50		50
56-23-5	Carbon tetrachloride	Not Detected	50		50
108-90-7	Chlorobenzene	Not Detected	50		50
75-00-3	Chloroethane	Not Detected	250		50
67-66-3	Chloroform	Not Detected	50		50
74-87-3	Chloromethane	Not Detected	250		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78857 Tanker #6

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	50		50
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	50		50
110-82-7	Cyclohexane	Not Detected	250		50
124-48-1	Dibromochloromethane	Not Detected	50		50
74-95-3	Dibromomethane	Not Detected	50		50
75-71-8	Dichlorodifluoromethane	Not Detected	250		50
60-29-7	Diethyl ether	Not Detected	250		50
108-20-3	Diisopropyl Ether	Not Detected	250		50
100-41-4	Ethylbenzene	Not Detected	50		50
637-92-3	Ethyltertiarybutylether	Not Detected	250		50
67-72-1	Hexachloroethane	Not Detected	250		50
98-82-8	Isopropylbenzene	Not Detected	50		50
108383,106423	m & p - Xylene	Not Detected	100		50
74-88-4	Methyl iodide	Not Detected	50		50
75-09-2	Methylene chloride	Not Detected	250		50
1634-04-4	Methyltertiarybutylether	Not Detected	50		50
91-20-3	Naphthalene	Not Detected	250	X	50
104-51-8	n-Butylbenzene	Not Detected	50		50
103-65-1	n-Propylbenzene	Not Detected	50		50
95-47-6	o-Xylene	Not Detected	50		50
99-87-6	p-Isopropyl toluene	Not Detected	50		50
135-98-8	sec-Butylbenzene	Not Detected	50		50
100-42-5	Styrene	Not Detected	50		50
98-06-6	tert-Butylbenzene	Not Detected	50		50
75-65-0	tertiary Butyl Alcohol	Not Detected	2500		50
994-05-8	tertiaryAmylmethylether	Not Detected	250		50
127-18-4	Tetrachloroethylene	Not Detected	50		50
109-99-9	Tetrahydrofuran	Not Detected	250		50
108-88-3	Toluene	Not Detected	50		50
156-60-5	trans-1,2-Dichloroethylene	Not Detected	50		50
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	50		50
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	250	Z	50
79-01-6	Trichloroethylene	Not Detected	50		50
75-69-4	Trichlorofluoromethane	Not Detected	50		50
75-01-4	Vinyl chloride	Not Detected	50		50

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78858 Pk Lot #1

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.7			
SURROGATE	#Dibromofluoromethane#	100			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	10	5.0	6	1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	110	20	6	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0	5	1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78858 Pk Lot #1

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0		1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	5.7	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50	5	1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78859 Pk Lot #2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.1			
SURROGATE	#Dibromofluoromethane#	101			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	6.2	5.0	6	1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	99	20	6	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0	5	1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78859 Pk Lot #2

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0		1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	6.8	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50	5	1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78860 Pk Lot #3

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
SURROGATE	#Bromofluorobenzene#	97.4			
SURROGATE	#Dibromofluoromethane#	101			
SURROGATE	#Toluene-d8#	101			
630-20-6	1,1,1,2-Tetrachloroethane	Not Detected	1.0		1.0
71-55-6	1,1,1-Trichloroethane	Not Detected	1.0		1.0
79-34-5	1,1,2,2-Tetrachloroethane	Not Detected	1.0		1.0
79-00-5	1,1,2-Trichloroethane	Not Detected	1.0		1.0
75-34-3	1,1-Dichloroethane	Not Detected	1.0		1.0
75-35-4	1,1-Dichloroethylene	Not Detected	1.0		1.0
87-61-6	1,2,3-Trichlorobenzene	Not Detected	5.0		1.0
96-18-4	1,2,3-Trichloropropane	Not Detected	1.0		1.0
526-73-8	1,2,3-Trimethylbenzene	Not Detected	1.0		1.0
120-82-1	1,2,4-Trichlorobenzene	Not Detected	5.0		1.0
95-63-6	1,2,4-Trimethylbenzene	Not Detected	1.0		1.0
96-12-8	1,2-Dibromo-3-chloropropane	Not Detected	5.0		1.0
106-93-4	1,2-Dibromoethane	Not Detected	1.0		1.0
95-50-1	1,2-Dichlorobenzene	Not Detected	1.0		1.0
107-06-2	1,2-Dichloroethane	Not Detected	1.0		1.0
78-87-5	1,2-Dichloropropane	Not Detected	1.0		1.0
108-67-8	1,3,5-Trimethylbenzene	Not Detected	1.0		1.0
541-73-1	1,3-Dichlorobenzene	Not Detected	1.0		1.0
106-46-7	1,4-Dichlorobenzene	Not Detected	1.0		1.0
78-93-3	2-Butanone (MEK)	6.9	5.0	6	1.0
591-78-6	2-Hexanone	Not Detected	5.0		1.0
91-57-6	2-Methylnaphthalene	Not Detected	5.0	X	1.0
67-64-1	2-Propanone (acetone)	100	20	6	1.0
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Detected	5.0		1.0
107-13-1	Acrylonitrile	Not Detected	5.0	Z	1.0
71-43-2	Benzene	Not Detected	1.0		1.0
108-86-1	Bromobenzene	Not Detected	1.0		1.0
74-97-5	Bromochloromethane	Not Detected	1.0		1.0
75-27-4	Bromodichloromethane	Not Detected	1.0		1.0
75-25-2	Bromoform	Not Detected	1.0		1.0
74-83-9	Bromomethane	Not Detected	5.0	5	1.0
75-15-0	Carbon disulfide	Not Detected	1.0		1.0
56-23-5	Carbon tetrachloride	Not Detected	1.0		1.0
108-90-7	Chlorobenzene	Not Detected	1.0		1.0
75-00-3	Chloroethane	Not Detected	5.0		1.0
67-66-3	Chloroform	Not Detected	1.0		1.0
74-87-3	Chloromethane	Not Detected	5.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78860 Pk Lot #3

Volatile Compounds

Analytical Method: 8260 **Date Tested:** 07/23/2011 **Analyst:** JRS

CAS #	Compound	Result ug/L	RL	Qualifier	Dilution Factor
156-59-2	cis-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-01-5	cis-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-82-7	Cyclohexane	Not Detected	5.0		1.0
124-48-1	Dibromochloromethane	Not Detected	1.0		1.0
74-95-3	Dibromomethane	Not Detected	1.0		1.0
75-71-8	Dichlorodifluoromethane	Not Detected	5.0		1.0
60-29-7	Diethyl ether	Not Detected	5.0		1.0
108-20-3	Diisopropyl Ether	Not Detected	5.0		1.0
100-41-4	Ethylbenzene	Not Detected	1.0		1.0
637-92-3	Ethyltertiarybutylether	Not Detected	5.0		1.0
67-72-1	Hexachloroethane	Not Detected	5.0		1.0
98-82-8	Isopropylbenzene	Not Detected	1.0		1.0
108383,106423	m & p - Xylene	Not Detected	2.0		1.0
74-88-4	Methyl iodide	Not Detected	1.0		1.0
75-09-2	Methylene chloride	Not Detected	5.0		1.0
1634-04-4	Methyltertiarybutylether	Not Detected	1.0		1.0
91-20-3	Naphthalene	Not Detected	5.0	X	1.0
104-51-8	n-Butylbenzene	Not Detected	1.0		1.0
103-65-1	n-Propylbenzene	Not Detected	1.0		1.0
95-47-6	o-Xylene	Not Detected	1.0		1.0
99-87-6	p-Isopropyl toluene	6.9	1.0		1.0
135-98-8	sec-Butylbenzene	Not Detected	1.0		1.0
100-42-5	Styrene	Not Detected	1.0		1.0
98-06-6	tert-Butylbenzene	Not Detected	1.0		1.0
75-65-0	tertiary Butyl Alcohol	Not Detected	50	5	1.0
994-05-8	tertiaryAmylmethylether	Not Detected	5.0		1.0
127-18-4	Tetrachloroethylene	Not Detected	1.0		1.0
109-99-9	Tetrahydrofuran	Not Detected	5.0		1.0
108-88-3	Toluene	Not Detected	1.0		1.0
156-60-5	trans-1,2-Dichloroethylene	Not Detected	1.0		1.0
10061-02-6	trans-1,3-Dichloropropylene	Not Detected	1.0		1.0
110-57-6	trans-1,4-Dichloro-2-butene	Not Detected	5.0	Z	1.0
79-01-6	Trichloroethylene	Not Detected	1.0		1.0
75-69-4	Trichlorofluoromethane	Not Detected	1.0		1.0
75-01-4	Vinyl chloride	Not Detected	1.0		1.0

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
ENVIRONMENTAL LABORATORY
P.O. Box 30270
Lansing, MI 48909
TEL: (517) 335-9800
FAX: (517) 335-9600

Sample Number: AB78860 Pk Lot #3

CAS#	Analyte Name	Result	Unit	RL	Qualifier	Date Tested	Method	Analyst
	Priority 1 Costs	Completed				07/23/2011		KS

Qualifier Code	Qualifier Description
1	Result(s) and RL(s) are estimated due to low surrogate recovery.
2	Result is estimated due to high surrogate recovery.
3	Result(s) and RL(s) are estimated due to low matrix spike recovery.
4	Result is estimated due to high matrix spike recovery.
5	Result and RL are estimated due to low continuing calibration standard criteria failure.
6	Result is estimated due to high continuing calibration standard criteria failure.
7	Result(s) and RL(s) are estimated due to poor precision.
8	Result(s) and RL(s) are estimated due to low recovery of batch QC.
9	Result outside QC acceptance criteria.
A	Value reported is the mean of two or more determinations.
C	Value calculated from other independent parameters.
D	Analyte value quantified from a dilution(s); reporting limit (RL) raised.
E	Result is estimated due to high recovery of batch QC.
F	Amenable cyanide was not analyzed due to low level of total cyanide.
G	Result and RL are estimated due to initial calibration standard criteria failure.
H	Recommended laboratory holding time was exceeded.
I	Dilution required due to matrix interference; reporting limit (RL) raised.
J	Analyte was positively identified. Value is an estimate.
JA	Result is estimated due to multiple Aroclors present.
JC	Result is estimated since confirmation analysis did not meet acceptance criteria
JD	Due to severe degradation, specific Aroclor identification is difficult and quantitation is estimated.
K	RL(s) raised due to matrix interferences.
KR	RL(s) raised due to low sample volume submitted.
KS	RL(s) raised due to low total solids.
KW	RL(s) raised due to light sample weight.
LB	Reported library search compounds are tentative identifications with estimated concentrations.
M	The level of the method preparation blank (MPB) is reported in the qualifier column.
N	Non-homogeneous sample made analysis of sample questionable.
O	Result and RL estimated due to analysis from an open vial.
P	Recommended sample collection/preservation technique not used; reported result(s) is an estimate.
Q	Quantity of sample insufficient to perform analyses requested.
R	Result confirmed by re-extraction and analysis.
S	Supernatant analyzed.
T	Reported value is less than the reporting limit (RL). Result is estimated.
V	Value not available due to dilution.
W	Reported value is less than the method detection limit (MDL).
X	Methods 8260 & 624 are used to analyze volatile organics that have boiling points below 200°C. 2-Methylnaphthalene & naphthalene have boiling points above 200°C and are better suited to analysis by methods 8270 or 625 as semivolatile organics.
PI	Possible interference may have affected the accuracy of the laboratory result
Z	Result reported below the RL to meet the TDL in RRD Op Memo 2 (10/22/04) multiplied by applicable dilution factor.

CAS# : Chemical Abstract Service Registry Number
RL : Reporting Limit
ND : Not Detected

ug / L : microgram / liter (ppb)
mg / L : milligram / liter (ppm)
ug / Kg : microgram / kilogram (ppb)
mg / Kg : milligram / kilogram (ppm)

Laboratory Contacts
Inorganic Unit Mgr: Sandy Gregg
Organic Unit Mgr: Carol Smith
Systems Mgmt Unit: George Krisztian

On 7/22/11 at approximately 5:33 PM I interviewed the truck drive, DARYL CALVANK, of Harold Marcus Trucking in reference to a BLEVE or a tanker he was pulling. I advised Mr. Calvank that I was a criminal investigator assigned to the DEQ and provided him with a business card. He advised that he has already spoken to a number of investigators including MSP Motor Carrier but wanted to cooperate. He provided a cell phone number of 947-517-6099.

I asked Calvank to tell me what type of tractor and trailer he was operating and he advised that he was driving a 2009 Volvo with Ontario registration 6057PE and pulling a 1986 Brennan tanker with Ontario with Ontario registration B17850. He further advised that he has been employed with Harold Marcus for the last six years. Harold Marcus is located in Bothwell, Ontario and their phone number is 800-265-9426.

I then requested Calvank explain how he came to be in possession of the trailer and what happened. Calvank stated that he brought an empty trailer (which had a previous load of calcium chloride and had not been cleaned) and arrived at Clean Harbours in Chicago at approximately 11:00 AM Central time. He checked in, pulled around to loading bay and dropped the trailer. He then went to the staging area and waited approximately 3 hours. When Clean Harbours notified him the load was ready to go, he hooked the trailer up, inspected the seals on the top and bottom and picked up his manifest and other paperwork. He then left eastbound to Corunna Ontario.

Calvank stated that he then pulled into Lake Station Indiana to stop for dinner and to check the pressure gauge. He advised it was a little high, but not unusual because of the heat of the day and sun so bled the pressure off and after eating continued eastbound.

He then advised that around 5:00 PM he pulled into the Sawyer truck stop to again check the pressure. He advised that he put the window down to assist him in backing up the trailer and he got a smell of product. He then parked and did a walk around and observed product dripping from the middle of the bottom of the tanker. He grabbed his catch basin and put it under the leak as well as some absorbent pads for what had already leaked on the parking lot. Calvank stated that he then called his dispatch and told them he had an active leak. He then utilized the vacuum on the trailer and was able to stop the product from leaking. He advised the vapors were getting stronger and so he went to the desk at the truck stop and told the manager he had a leak and they needed to cordon off the parking lot.

Calvank further advised that at 5:10 PM he ran back to the scene and started waking up drivers in the adjoining trucks and the manager came out and told him that she called the fire department and that Harold Marcus Trucking called Clean Harbours at about the same time. Calvank stated that the first responders arrived within 10 minutes. Calvank stated that he never left the area of the trailer after that. He stated that about 8:00 PM the trailer started leaking again in the same spot so he put on his respirator and went to check on the status of the vacuum. He found out it was not working and tried revving the engine to engage it again. He stated he got out and looked and now there was a steady stream of product coming out of the trailer. He stated that around 8:40 to 8:45 PM he went in and

decided to shut off the ignition to the tractor and he then heard a hiss and whistle and advised that usually indicates that you have a PSI of 32-35 and that the trailer exploded at about 9:15 PM.

Calvank advised that he believed that something was wrong upon his first view of the trailer leaking because it was dropping to the pavement and then splashing on the trailer and was reacting with the aluminum.

Wolsey, Shawn (PHMSA)

From: Turner, Ted (PHMSA)
Sent: Monday, February 06, 2012 3:29 PM
To: Wolsey, Shawn (PHMSA)
Subject: FW: RETURN OF PRODUCT FROM INCIDENT

Here it is

From: Randy [mailto:randy@haroldmarcus.com]
Sent: Monday, February 06, 2012 3:27 PM
To: Turner, Ted (PHMSA)
Subject: RE: RETURN OF PRODUCT FROM INCIDENT

Alfred had the manifest completed when he arrived on site, complete with the shipping description already in box 9, the only entry I had him add was the (D002) at the end of the basic description identifying why it was a hazardous substance as identified by the letters "RQ" which Alfred already had on the form....

Randy Badiuk
Supervisor - Spill Services
Harold Marcus Limited
Responsible Care Partner with the Chemistry Industry Association of Canada

Work - 800 265-9426
Cell - 519 380-5292
randy@haroldmarcus.com

From: ted.turner@dot.gov [mailto:ted.turner@dot.gov]
Sent: Monday, February 06, 2012 3:19 PM
To: randy@haroldmarcus.com
Subject: RE: RETURN OF PRODUCT FROM INCIDENT

Do you have that in writing from them or was it verbal?

From: Randy [mailto:randy@haroldmarcus.com]
Sent: Monday, February 06, 2012 3:17 PM
To: Turner, Ted (PHMSA)
Subject: RE: RETURN OF PRODUCT FROM INCIDENT

Hi Ted, I hope all is well.....it was arrived at by a representative from Clean Harbors, he was in their lab and I'm unsure if they used a sample from the incident site or from a sample collected from within their facility. I've pasted the contact

information of the person who was on site the morning of the beginning of the movements off site. I believe Alfred is the person who choose the shipping description.

Alfred Aghapour
General Manager
Clean Harbors Environmental Services of Chicago
A Clean Compliance Program facility (CCP)
1445 W.42nd St.
Chicago IL. 60609
Office:1-773-247-2828
Cell:1-773-456-9694
Fax: 1-773-650-1466
E-mail: Aghapour.Alfred@Cleanharbors.com

Randy Badiuk
Supervisor - Spill Services
Harold Marcus Limited
Responsible Care Partner with the Chemistry Industry Association of Canada

Work - 800 265-9426
Cell - 519 380-5292
randy@haroldmarcus.com

Responsible Care
Our commitment to sustainability.

From: ted.turner@dot.gov [mailto:ted.turner@dot.gov]
Sent: Monday, February 06, 2012 2:59 PM
To: randy@haroldmarcus.com
Subject: RETURN OF PRODUCT FROM INCIDENT

I remember asking but cannot find it now. You signed the waste manifest I have for the return of material to Clean Harbor but how was the proper shipping description arrived at? Was it sent to you by Clean Harbor in an email or by phone. If so I need a copy of that email.

Call me if you have questions 614-307-6979

Theodore J. Turner III
Hazardous Materials Investigator, Central Region
Office Of Hazardous Materials Safety, Field Operations
Pipeline and Hazardous Materials Safety Administration
United States Department of Transportation
2300 East Devon Avenue, Suite 478
DesPlains, IL, 60018

847-294-8580 Office
847-294-8590 Office fax
614-386-9689 eFax

From:	Randy
To:	Turner, Ted (PHMSA)
Date:	Friday, January 13, 2012 1:55:47 PM
Attachments:	image001.png CERTIFICATE OF COMPLIANCE.pdf

Dear Mr. Turner, as requested I've enclosed a copy of the Certificate of Compliance for our trailer number 678 bearing VIN number 1T9AC15B0PF003171 which was involved in the incident located at Sawyer Michigan in July 2011. By submission of this message and the attached Certificate of Compliance I am confirming the material of construction for the barrel was Aluminum and is indicated as such on the original blueprints.

Please feel free to contact our office if there is any additional information that can be provided in relation to this incident.

Randy Badiuk
Manager - Safety & Compliance
Harold Marcus Limited
Responsible Care Partner with the Chemistry Industry Association of Canada

Work - 800 265-9426
Cell - 519 380-5292
randy@haroldmarcus.com

HAROLD MARCUS LTD.

Responsible Care®
Our commitment to sustainability.

CERTIFICATE OF COMPLIANCE

ISSUED BY HAROLD MARCUS LIMITED

CARGO TANK REGISTERED INSPECTION FACILITY NUMBER CT-1546

This certifies that the cargo tank identified below was inspected and tested in accordance with the Department of Transportation Motor Vehicle Cargo Tank Specifications for cargo tank used for the transportation of classified liquids

Vehicle Type: Semi-Trailer Tank Capacity: 6000 IMP GAL

Year Fabricated: 1994 Serial No: 1T9AC15B0PF003171

Manufactured By: TRAILMASTER

CERTIFICATION

[X] Cargo Tank Complies to Specification No. MC 307

Registered Inspector Owner April 4, 2003 Date

U.S. DOT/PHMSA/OHMS
Report Number: 11242024
Exhibit Number: 28
2 of 2

FW: Marcus Trucking / Clean Harbors
Schaibly, Barbara (DEQ)
to:
Diane Sharrow
03/13/2012 10:07 AM
Hide Details
From: "Schaibly, Barbara (DEQ)" <SCHAIBLYB@michigan.gov>

To: Diane Sharrow/R5/USEPA/US@EPA

History: This message has been forwarded.

2 Attachments

Clean Harbors Enforcement Notice_12-12-2011.pdf Harold Marcus Enforcement Notice.pdf

Per John's request, attached are the Enforcement Notices that were sent to Clean Harbors and Marcus Trucking.

At this point there is not an attorney assigned from our AG's office. We are still in the initial stages of negotiations and have not filed an action against either of the parties.

Barb Schaibly
Michigan Department of Environmental Quality
Water Resources Division
Enforcement Unit
517-335-2207
schaiblyb@michigan.gov

From: Craig, John (DEQ)
Sent: Monday, March 12, 2012 3:24 PM
To: Schaibly, Barbara (DEQ)
Subject: FW: Marcus Trucking / Clean Harbors

Barb, Can you please respond to this request? Thanks. John

From: Diane Sharrow [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Friday, March 09, 2012 5:14 PM
To: Craig, John (DEQ)
Cc: Mark Palermo
Subject: Marcus Trucking / Clean Harbors

John,

We were wondering if we can obtain copies of the actions filed DEQ Water Resources Division has filed or issued (if they have been filed or issued)?

Also, can you tell us if there is an attorney from the AG's office assigned and if so can we get their name and phone number?

Or would they be willing to call Mark Palermo, the attorney here in Region 5 working with me on the Marcus Trucking / Clean Harbors investigation?

Mark Palermo's phone number is 312-886-6082.

Thank you,

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

STATE OF MICHIGAN

DEPARTMENT OF ENVIRONMENTAL QUALITY

LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

NOTICE No. EN-000146

CERTIFIED MAIL 7007 1490 0003 9692 3578

Mr. Gary Malinowski
Senior Compliance Manager
Clean Harbors Recycling Services of Chicago, LLC
1445 West 42nd Street
Chicago, Illinois 60609

ENFORCEMENT NOTICE

Dear Mr. Malinowski:

SUBJECT: Tanker Explosion - Travel America Truck Stop (July 21, 2011)
6100 Sawyer Road
Sawyer, Michigan 49085

The Michigan Department of Environmental Quality (MDEQ), Water Resources Division (WRD), Kalamazoo District Office, has referred this matter to the WRD's Water Enforcement Unit requesting initiation of an escalated enforcement action to recover the MDEQ's costs; natural resource damages; and a civil fine associated with a tanker truck explosion that occurred at the Travel America Truck Stop located in Sawyer, Michigan (Sawyer Truck Stop).

On July 21, 2011, MDEQ staff responded to an incident at the Sawyer Truck Stop where a tanker truck had exploded and spilled its contents. Some of the content was contained, but an undetermined amount was released to the storm sewer and subsequently to the Sawyer Village Drain, commonly known as Sawyer Creek which is a tributary to Lake Michigan. The waste manifest for the truck's content identified it as methyl ethyl ketone; however, subsequent analytical results determined that the primary component of the waste was sodium hydroxide. The high pH of the waste allowed the MDEQ to document and track the release in the creek using pH meters. The spill resulted in a fish kill of approximately 99 fish in Sawyer Creek and closure of the Warren Dunes State Park beach area for twelve hours. Clean Harbors Recycling Services of Chicago, LLC (Clean Harbors) has been identified by the MDEQ as the owner of the contents of the truck and responsible for the unauthorized discharge to the creek.

The release to Sawyer Creek was an unauthorized discharge to the waters of the state and contained injurious substances in violation of Section 3109(1) of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (NREPA) which states:

(1) A person shall not directly or indirectly discharge into the waters of the state a substance that is or may become injurious to any of the following:

(a) To the public health, safety, or welfare
(b) To domestic, commercial, industrial, agricultural, recreational, or other uses that are being made or may be made of such waters.

(c) To the value or utility of riparian lands.
(d) To livestock, wild animals, birds, fish, aquatic life, or plants or to their growth or propagation.
(e) To the value of fish and game.

Clean Harbors is also liable for the full value of injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction or loss resulting from the release pursuant to Section 20126a of Part 201, Environmental Remediation, of the NREPA, which states:

(1) Except as provided in Section 20126(2), a person who is liable under section 20126 is jointly and severally liable for all of the following:

(a) All costs of response activity lawfully incurred by the state relating to the selection and implementation of response activity under this part.
(b) Any other costs of response activity reasonably incurred under the circumstances by any other person.
(c) Damages for the full value of injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction, or loss resulting from the release.

An assessment for the loss of natural resources includes both the affected natural resources and the loss of services provided by that resource. The two significant natural resource damage losses directly attributable to the spill are the service loss at the Warren Dunes State Park and mortality to fish in Sawyer Creek.

The issues identified in this Enforcement Notice, as well as any additional violations discovered hereafter, must be formally resolved through entry of an Administrative Consent Order (Consent Order). The Consent Order will include provisions for reimbursement of MDEQ's costs incurred as a result of the spill; payment for natural resource damages; and payment of a civil fine for violating Part 31 of the NREPA. If Clean Harbors is willing to enter into a Consent Order, a draft Consent Order will be developed and sent to you under separate cover. In the event that Clean Harbors refuses to resolve this matter through entry of a Consent Order, the matter will be referred for litigation.

Clean Harbors may request a preliminary meeting with the MDEQ, WRD enforcement staff to discuss the issues detailed in this Enforcement Notice. If you would like to participate in such a meeting, please contact Ms. Barb Schaibly, Enforcement Specialist, Water Enforcement Unit, WRD, at 517-335-2207, not later than ten days from your receipt of this Enforcement Notice.

STATE OF MICHIGAN
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION

Date Issued: _____

_____
Barry H. Selden, Chief
Water Enforcement Unit
Water Resources Division

ADDRESS FOR FURTHER CORRESPONDENCE:

Barb Schaibly, Enforcement Specialist
Water Enforcement Unit
Water Resources Division
P.O. Box 30458
Lansing, Michigan 48909-7958

cc: Ms. Theresa Holz, United States Environmental Protection Agency
Mr. Cory Burks, Berrien County Emergency Management Coordinator
Mr. Michael Davidson, Chikaming Township Fire Chief
Mr. Randal Badiuk, Harold Marcus, Ltd.
Mr. Frank Ballo, MDEQ
Mr. Peter Ostlund, MDEQ
Mr. Kameron Jordan, MDEQ
Mr. Fred Sellers, MDEQ
Ms. Barb Schaibly, MDEQ

Wolsey, Shawn (PHMSA)

From: Turner, Ted (PHMSA)
Sent: Monday, February 06, 2012 3:29 PM
To: Wolsey, Shawn (PHMSA)
Subject: FW: RETURN OF PRODUCT FROM INCIDENT

Here it is

From: Randy [mailto:randy@haroldmarcus.com]
Sent: Monday, February 06, 2012 3:27 PM
To: Turner, Ted (PHMSA)
Subject: RE: RETURN OF PRODUCT FROM INCIDENT

Alfred had the manifest completed when he arrived on site, complete with the shipping description already in box 9, the only entry I had him add was the (D002) at the end of the basic description identifying why it was a hazardous substance as identified by the letters "RQ" which Alfred already had on the form....

Randy Badiuk
Supervisor - Spill Services
Harold Marcus Limited
Responsible Care Partner with the Chemistry Industry Association of Canada

Work - 800 265-9426
Cell - 519 380-5292
randy@haroldmarcus.com

From: ted.turner@dot.gov [mailto:ted.turner@dot.gov]
Sent: Monday, February 06, 2012 3:19 PM
To: randy@haroldmarcus.com
Subject: RE: RETURN OF PRODUCT FROM INCIDENT

Do you have that in writing from them or was it verbal?

From: Randy [mailto:randy@haroldmarcus.com]
Sent: Monday, February 06, 2012 3:17 PM
To: Turner, Ted (PHMSA)
Subject: RE: RETURN OF PRODUCT FROM INCIDENT

Hi Ted, I hope all is well.....it was arrived at by a representative from Clean Harbors, he was in their lab and I'm unsure if they used a sample from the incident site or from a sample collected from within their facility. I've pasted the contact

information of the person who was on site the morning of the beginning of the movements off site. I believe Alfred is the person who choose the shipping description.

Alfred Aghapour
General Manager
Clean Harbors Environmental Services of Chicago
A Clean Compliance Program facility (CCP)
1445 W.42nd St.
Chicago IL. 60609
Office:1-773-247-2828
Cell:1-773-456-9694
Fax: 1-773-650-1466
E-mail: Aghapour.Alfred@Cleanharbors.com

Randy Badiuk
Supervisor - Spill Services
Harold Marcus Limited
Responsible Care Partner with the Chemistry Industry Association of Canada

Work - 800 265-9426
Cell - 519 380-5292
randy@haroldmarcus.com

Responsible Care
Our commitment to sustainability

From: ted.turner@dot.gov [mailto:ted.turner@dot.gov]
Sent: Monday, February 06, 2012 2:59 PM
To: randy@haroldmarcus.com
Subject: RETURN OF PRODUCT FROM INCIDENT

I remember asking but cannot find it now. You signed the waste manifest I have for the return of material to Clean Harbor but how was the proper shipping description arrived at? Was it sent to you by Clean Harbor in an email or by phone. If so I need a copy of that email.

Call me if you have questions 614-307-6979

Theodore J. Turner III
Hazardous Materials Investigator, Central Region
Office Of Hazardous Materials Safety, Field Operations
Pipeline and Hazardous Materials Safety Administration
United States Department of Transportation
2300 East Devon Avenue, Suite 478
DesPlains, IL, 60018

847-294-8580 Office
847-294-8590 Office fax
614-386-9689 eFax

From:	Randy
To:	Turner, Ted (PHMSA)
Date:	Friday, January 13, 2012 1:55:47 PM
Attachments:	image001.png CERTIFICATE OF COMPLIANCE.pdf

Dear Mr. Turner, as requested I've enclosed a copy of the Certificate of Compliance for our trailer number 678 bearing VIN number 1T9AC15B0PF003171 which was involved in the incident located at Sawyer Michigan in July 2011. By submission of this message and the attached Certificate of Compliance I am confirming the material of construction for the barrel was Aluminum and is indicated as such on the original blueprints.

Please feel free to contact our office if there is any additional information that can be provided in relation to this incident.

Randy Badiuk
Manager - Safety & Compliance
Harold Marcus Limited
Responsible Care Partner with the Chemistry Industry Association of Canada

Work - 800 265-9426
Cell - 519 380-5292
randy@haroldmarcus.com

HAROLD MARCUS

Responsible Care
Our commitment to sustainability

CERTIFICATE OF COMPLIANCE

ISSUED BY HAROLD MARCUS LIMITED

CARGO TANK REGISTERED INSPECTION FACILITY NUMBER CT-1546

This certifies that the cargo tank identified below was inspected and tested in accordance with the Department of Transportation Motor Vehicle Cargo Tank Specifications for cargo tank used for the transportation of classified liquids

Vehicle Type: Semi-Trailer Tank Capacity: 6000 IMP GAL

Year Fabricated: 1994 Serial No: 1T9AC15B0PF003171

Manufactured By: TRAILMASTER

CERTIFICATION

[X] Cargo Tank Complies to Specification No. MC 307

Registered Inspector Owner April 4, 2003 Date

Chikaming Township Police Department -- (269) 469-3245
13535 Red Arrow Highway, PO Box 258, Harbert MI 49115

Incident No: **11-001157**
Status: **Closed**

Date Reported:	**Fri 07/22/2011 00:48**	Occurred Between:	**Thu 07/21/2011 19:34** and **Fri 07/22/2011 03:00**
Dispatch Time:		Arrival Time:	Clear Time:
Officers:	**KNOLL, GEORGE**	**STORMONT, JAMES**	Detective:
Classification:	**HEALTH AND SAFETY -- (55000)**		
Location:	**6100 SAWYER ROAD,SAWYER (SAWYER TRAVEL CENTER)**	Section / Nbh:	/
Description:	**Tanker leaking chemical**		Entered: **KNOLL**

Driver: (55000 HEALTH AND SAFETY)

CALVANK, DARRYL, H
5903 PETROLIA LINE, RR1
PETROLIA, ON
Born: **03/23/1965**
Phone: **(517)241-0506**
Ops: **C03301564650323 / ON**
Race: **White** Sex: **Male**

Vehicles:

2009 VOLVO TRACTOR Tag: **6057PE / ON** Unit: **1**
Registered To: **HAROLD MARCUS LIMITED**
15124 LONGWOODS RD
BOTHWELL, ON N0P 1C0
VIN: **4V4NCAEJ69N275119**
Status: **DAMAGED**

INITIAL NARRATIVE **Reporting Officer: KNOLL, GEORGE** **07/22/11**

R/O called to respond to the lot of the T.A. after a tanker driver called to report a chemical leaking from the bottom of the tanker. He provided dispatch with the placard number and advised it was orange . R/O arrived and spoke with the driver and he produced his paperwork and it showed the tank hauling Methyl Ethyl Keytone. He said he had 4600 gallons and it looked as a gallon or so had leaked to the ground. R/O met with Tpr. Jim Janes and he used his I-phone to pull up the hazardous material information and the appropriate perimeter. R/O and others worked with UIC Irv Hischke and we set up a perimeter and eventually shut down Sawyer Road and the E/B exit ramp. BCSD Hazmat was contacted to respond. The driver Daryl Calvank, driving for Harold Marcus Limited Trucking was trying to contact his company. Dozens and Dozens of semi's were removed from the immediate area surrounding the tanker and one Chikaming Firetruck was station approximately 175 ft to the southeast to prevent any other semi's trying to exit through the back lot. At this R/O's direction Sawyer Road between the E/B and W/B ramps was shut down to all incoming traffic and the W/B land was left open as an exit route for vehicles, semi trucks were routed to the South lot of the T.A. and then north into the passenger vehicle lot around the gas pumps and out through the passenger vehicle entrance and exited to the west the farther possible exit point to the west of the tank. Eventually the tanker did explode-no one was injured. More details will be added later.

The initial paperwork from the driver indicated the substance to be Methyl Ethyl Keytone, which is referred to as MET, the paperwork and the Hazardous Material Placard would be a highly flammable chemical.Information from the driver indicated he did not believe the chemical within the aluminum tanker was what the shipping papers said, and he was attempting to vent off vapors to prevent the rise in pressure inside the tank. He advised the chimcal in the truck was eating through the aluminum tanker.

The driver of the tanker-truck did a valiant effort at attempting to vent off the excessive pressure building inside the tanker but eventually the leaking became heavier out of the bottom of the trailer and then became to pour out of the bottom of the compromised tanker and around 21:45 the tank exploded- sending a cloud of mist and debris up into and around the containment area. The tanker itself was blown apart and pieces were observed flying as

high as a hundred yards up into the air.

A check with all emergency personnel and the minimal staffing inside the store indicated no one was seriously injured by the blast.

What was known at the time of the explosion was the tanker was transporting some 4600 gallons of an unknown chemical when the driver noticed the tanker had started to leak and he exited the freeway into the back lot of the truck stop.

The Chikaming Patrol Car was placed at an angle facing the tanker to block the ramp, signage was put up at the top of the ramp advising the ramp was closed and large cones also, the patrol was placed at the bottom of the ramp, incase some one exited anyway. Tpr. Jans used his patrol car to block west bound traffic on Sawyer Road just east of the E/B exit ramp. Bridgman 4011 was directed to use his patrol car to block Sawyer Road east bound traffic back west at the W/B exit ramp. Per this R/O's orders, all traffic with the exception of emergency workers, was shut down on Sawyer Rd. between the ramps, the W/B lane was left open as an egress route so vehicles could exit W/B from the Sawyer Travel Center.

HAZARDOUS MATERIAL IDENTIFIED: The next afternoon around 16:00 R/O made contact with Fire Chief Davidson along Sawyer Road and he advised the chemical had been identified as Sodium Hydroxide, a corrisive material used in several house hold cleaning products

The MVC had been strategically placed facing the tanker and to capture the escaping vapors and dripping chemical in the back lot of the T.A. The video will be logged and secured in evidence.

(Supplement 1) **Reporting Officer: KNOLL, GEORGE** **07/27/11**

The following day R/O checked with Fire Chief Davidson and learned that test were indicating the chemical was some type of Hydrogen product. R/O learned that either the container was wither loaded with the wrong chemical or the shipping paperwork had gotten mixed up, causing the wrong type of tanker to be used to haul the actual chemical in the tanker. Some unspecified amount of the chemical did make it into a drain on Sawyer Road at the drain just west of the exit drive for trucks that have exited the Sawyer Truck Garage. Sand Berms were rapidly put into place to try to divert the chemical around the drain. The drain further west on Sawyer Road was also bermed with sand. The Sawyer Truck Stop was shut down sometime that morning after any remaining big rigs and employees were removed from the T.A. The company initially brought in clean up services Eagle Services out of Chesterton and Clean Harbor Environment out of Chicago. Prior to this R/O's departure around 04:15 that morning, personnel from the DNR environmental section also arrived. The Sawyer Road was closed along with the E/B ramp from minutes after the initial call till sometime late Sunday Night. The T.A. was reopened for business sometime after that. The following Wednesday the final clean-up of drains by the company hazardous response team was being completed.

ONLY ONE MINOR INJURY: Fireman Irv Hischke the fireman stationed at the south east corner at the back (east) parking lot is the only one who was injured slightly, he received a couple small burns on his face from droplets of the corrosive material as it fell from the sky after the tanker exploded.

(Supplement 2) **Reporting Officer: KNOLL, GEORGE** **08/16/11**

R/O talked to Chief Davidson in proceeding weeks after the explosion to compare notes. Several state and federal agencies are involved in this investigation. Mark Razny and investigator with U.S. DOT (847)294-8580 and William Ford a Detective Sgt. with the State of Michigan Department of Environmental Quality (269)567-3505 are involved in the investigation. This report is closed, tot these other agencies.

harborcountrynews.com
NEW BUFFALO, MICHIGAN
Saturday, July 23, 2011 HOMES CARS JOBS APTS STUFF
Search the site Sort by --- Go

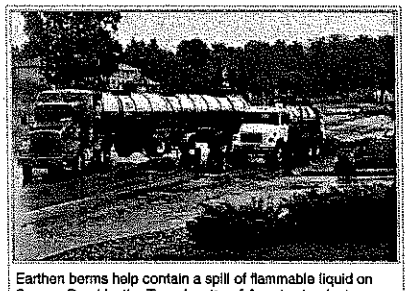
Home News Opinion Sports Features Obituaries Community Classifieds Jobs Contact Us

Archives > News

Print | E-mail | Comment (No comments posted.) | Rate | Text Size

Truck carrying load of hazardous material explodes in Sawyer

By Julie Swidwa
For the News
Published: Saturday, July 23, 2011 10:26 AM EDT



Earthen berms help contain a spill of flammable liquid on Sawyer Road by the Travelcenter of America truck stop Friday. The small white truck on the right is pumping the liquid into the larger tank truck on left for removal. - photo by John Madill

SAWYER — No one was injured when a truck carrying hazardous waste exploded at a Sawyer truck stop Thursday night, but crews spent all night Thursday and all day Friday cleaning up the mess.

Berrien County Sheriff Paul Bailey said cleanup was continuing into Friday night.

Sheriff's Department Chief Deputy Michael Bradley credited the truck driver with actions he said probably kept a bad situation from being worse. The driver, whose name Bradley did not have available, had pulled off I-94 when he realized something was wrong, Bradley said.

The truck carrying a type of industrial waste, which was being hauled from Chicago to Canada for disposal, started to leak after the chemical reacted with something else inside the tank or parts of the tank itself.

The driver, who'd been traveling east on I-94, stopped at the Travelcenters of America on Sawyer Road off Exit 12 and authorities and a hazardous materials crew were called, Bradley said. The leak continued to get worse, and the truck exploded around 10 p.m.

State police Trooper Jim Janes at the Bridgman post said the waste, some type of hydroxide, was not flammable. The explosion tore apart the truck but there was no fire, he said.

"The tank isn't designed to carry a pressurized load. There was some type of reaction inside that tank. The pressure built up faster than the tank could handle. The liquid did not appear to be flammable, but we haven't completely identified what the material was," he said.

Bailey said the Hazardous Materials Team had determined it to be some type of hydroxide. Police said crews are continuing to investigate the likelihood that the material the driver had picked up was mislabeled.

Janes said there was no evacuation of the area Thursday night, but people were told to stay inside until crews determined there was no inhalation hazard.

Some of the waste got into a nearby drain, which crews were working to clean up on Friday. Meanwhile, sand dikes had been placed around the spill to contain it for clean-up. Bradley said there shouldn't be any long-term effects from the spill.

Bailey said crews were checking nearby creeks and no swimming was allowed at Warren Dunes State Park near Sawyer on Friday.

I-94 was open in both directions Friday, but Sawyer Road remained closed while the clean-up continued.

"If this had happened on the highway it would have shut down I-94. It was good work by the truck driver recognizing that he had a problem and getting to a safe area," Bradley said.

Agencies responding to the incident besides the sheriff's department included the county's Hazardous Materials Team, Chikaming Township police and fire departments, Bridgman Fire Department, state police, the Berrien County Drain Commission and Road Commission, the Michigan Department of Environmental Quality and Department of Natural Resources.

« Previous Article
Vision for next New Buffalo Library taking shape

Next Article »
21 years of summer fun at Captain Mike's

Article Rating
Current Rating: 0 of 0 votes! Rate File: Select Rating:

Submit a Comment
Name:
Email:
(optional)
Comments:

All comments will be reviewed prior to being posted. The following is criteria editors will follow in deeming comments suitable for posting. The newspaper reserves the right to not publish any comment for any reason and is not responsible for the content of any comment that posts. Comments may take several hours to be posted. If you have a question as to why your comment was not posted, please e-mail

New Buffalo, MI
72°F
forecast...

Top Homes
More Top Homes

Three Oaks FORD
Things
We'll do whatever it takes.
threeoaksford.com
6736 West U.S. 12
269-756-2081
Monday - Friday 8:30am-6pm
Saturday 9am-5pm

Maureen Culp
RE/MIX

REAL ESTATE

LSON REAL ESTATE INC.

Image Verification: (Case sensitive)

Post Comment

news@harborcountry-news.com.

KEEP IT CLEAN: Avoid language that is obscene, vulgar, lewd or sexually-oriented. If you can't control yourself, it won't post.
DON'T THREATEN to harm anyone in any way.
BE TRUTHFUL: Don't lie about anyone or anything.
BE NICE:. No racism, sexism or any other sort of -ism that degrades another person. Insults and name calling will not be tolerated.
TURN OFF YOUR CAPS LOCK: and forgive people for their spelling errors.
SHARE WHAT YOU KNOW: Give us your eyewitness accounts, background, observations and history. What more do you want to know about the story?
STAY FOCUSED: and ask questions. Keep on the story's topic.
REMEMBER: let's maintain a culture of respect.

Return to: News « | Home « | Top of Page ^

Sections
- Homepage
- News
- Opinion
- Sports
- Classifieds

Online Features
- Calendar
- Guestbook
- Entertainment
- Health
- Online Photo Gallery
- Special Sections
- Syndicated Features
- Weather

Services
- Search Archives
- About Us
- Advertise on Our Site
- Contact Us
- Make us your Home Page
- Online Forms
- E-mail Updates

RSS Feeds - RSS is a format set up for sharing content on the Web. The following sections are available as RSS feeds:
- News
- Opinon
- Sports

Copyright © 2011 Harbor Country News Send feedback to harborcountrynews@yahoo.com.
All rights reserved. View the Harbor Country News's Privacy Policy . This material may not be broadcast, published, rewritten or redistributed without written permission.
Powered by TownNews.com

RE: Clean Harbors
Sellers, Fred (DNRE)
to:
Schinderle, Jack (DNRE), Diane Sharrow
08/03/2011 02:34 PM
Cc:
Lorna Jereza, Paul Little, "Craig, John (DNRE)", Mary Setnicar, "Deak, Nadine (DNRE)"
Hide Details
From: "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov> Sort List...

To: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, Diane Sharrow/R5/USEPA/US@EPA

Cc: Lorna Jereza/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA, "Craig, John (DNRE)" <CRAIGJ@michigan.gov>, Mary Setnicar/R5/USEPA/US@EPA, "Deak, Nadine (DNRE)" <DEAKN@michigan.gov>

Jack & Diane,

I think that it was Bill Ford that had the signed manifest for the load. I have e-mailed him and requested a pdf of the signed copy. Aside from the signatures I don't remember anything remarkably different about the manifest.

From: Schinderle, Jack (DNRE)
Sent: Wednesday, August 03, 2011 11:42 AM
To: 'Sharrow.Diane@epamail.epa.gov'
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Craig, John (DNRE); Setnicar.Mary@epamail.epa.gov; Deak, Nadine (DNRE); Sellers, Fred (DNRE)
Subject: RE: Clean Harbors

Diane,

The manifest number for the load in question is 000039888MWI. I have attached a copy of the e-mail forwarding an electronic copy. Be aware that the manifest that accompanied the load may have looked different; signed and dated as well as having a transporter ID number. I will look into a scanned copy of the manifest held by the driver.

You may want to check into the export notifications for this material as the designated facility is in Ontario.

Let me know if you want to discuss prior to your inspection.

Jack Schinderle
DEQ
Hazardous Waste Section
517-373-8410

From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Tuesday, August 02, 2011 3:04 PM
To: Craig, John (DNRE); Schinderle, Jack (DNRE)
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Setnicar.Mary@epamail.epa.gov
Subject: Clean Harbors

John & jack,

I have been assigned to inspect Clean Harbors in light of the Sawyer Tanker Incident.

I was wondering if you could send me a copy / pdf of the manifest that was prepared by Clean Harbors for the transporter? Or at a minimum the Manifest Number?

I appreciate your assistance.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

RE: Clean Harbors
Sellers, Fred (DNRE)
to:
Schinderle, Jack (DNRE), Diane Sharrow
08/04/2011 07:12 AM
Cc:
Lorna Jereza, Paul Little, "Craig, John (DNRE)", Mary Setnicar, "Deak, Nadine (DNRE)"
Hide Details
From: "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov> Sort List...

To: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, Diane Sharrow/R5/USEPA/US@EPA

Cc: Lorna Jereza/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA, "Craig, John (DNRE)" <CRAIGJ@michigan.gov>, Mary Setnicar/R5/USEPA/US@EPA, "Deak, Nadine (DNRE)" <DEAKN@michigan.gov>

History: This message has been replied to and forwarded.

1 Attachment

signed manifest.pdf

Attached is the signed manifest.

From: Schinderle, Jack (DNRE)
Sent: Wednesday, August 03, 2011 11:42 AM
To: 'Sharrow.Diane@epamail.epa.gov'
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Craig, John (DNRE); Setnicar.Mary@epamail.epa.gov; Deak, Nadine (DNRE); Sellers, Fred (DNRE)
Subject: RE: Clean Harbors

Diane,

The manifest number for the load in question is 000039888MWI. I have attached a copy of the e-mail forwarding an electronic copy. Be aware that the manifest that accompanied the load may have looked different; signed and dated as well as having a transporter ID number. I will look into a scanned copy of the manifest held by the driver.

You may want to check into the export notifications for this material as the designated facility is in Ontario.

Let me know if you want to discuss prior to your inspection.

Jack Schinderle
DEQ
Hazardous Waste Section
517-373-8410

From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Tuesday, August 02, 2011 3:04 PM
To: Craig, John (DNRE); Schinderle, Jack (DNRE)
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Setnicar.Mary@epamail.epa.gov
Subject: Clean Harbors

John & jack,

I have been assigned to inspect Clean Harbors in light of the Sawyer Tanker Incident.

I was wondering if you could send me a copy / pdf of the manifest that was prepared by Clean Harbors for the transporter? Or at a minimum the Manifest Number?

I appreciate your assistance.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

Fw: Sawyer Tanker Incident

Lorna Jereza to: Spiros Bourgikos, Todd Brown, Sheila Burrus, William Damico, Jamie Paulin, Graciela Scambiatterra, Diane Sharrow, Robert Smith, 08/03/2011 04:42 PM

From: Lorna Jereza/R5/USEPA/US

To: Spiros Bourgikos/R5/USEPA/US@EPA, Todd Brown/R5/USEPA/US@EPA, Sheila Burrus/R5/USEPA/US@EPA, William Damico/R5/USEPA/US@EPA, Jamie Paulin/R5/USEPA/US@EPA, Graciela Scambiatterra/R5/USEPA/US@EPA, Diane

History: This message has been replied to.

fyi....

Lorna M. Jereza, Chief
Compliance Section 1
RCRA Branch
Land and Chemicals Division (LR-8J)
U.S. EPA, Region 5, Chicago
Telephone: (312) 353-5110
Facsimile: (312) 385-5519

----- Forwarded by Lorna Jereza/R5/USEPA/US on 08/03/2011 04:41 PM -----

From: Mary Setnicar/R5/USEPA/US
To: Margaret Guerriero/R5/USEPA/US@EPA
Cc: Michael Harris/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA, Lorna Jereza/R5/USEPA/US@EPA
Date: 08/03/2011 04:32 PM
Subject: Fw: Sawyer Tanker Incident

Margaret and Mike: see the first link in the MDNR message below (scroll down to bottom of e-mail stream). It is a good example of what happens when you violate RCRA by mixing incompatible hazardous wastes. RCRA Branch (Diane Sharrow, inspector) is following up at Michigan's request because the TSD facility is in IL (Chicago). Stay tuned for more information as the case develops.

In the meantime, do you think there's any chance of putting the video on the front page of Region 5's intranet site?

Mary Setnicar
Acting Chief, RCRA Branch
U.S. EPA Region 5; 77 W. Jackson Blvd. (LR-8J)
Chicago, IL 60604
tel: 312/886-0976; FAX: 312/692-2027
e-mail: setnicar.mary@epa.gov

----- Forwarded by Mary Setnicar/R5/USEPA/US on 08/03/2011 04:24 PM -----

From: Paul Little/R5/USEPA/US
To: Mary Setnicar/R5/USEPA/US@EPA
Date: 07/26/2011 02:36 PM
Subject: Fw: Sawyer Tanker Incident

Mary, I gave this referral to Lorna after speaking with MDEQ. Take a look at the truck video - and what happens regarding container with incompatible hazardous waste. Would it make an interesting video for the R5 intranet?

----- Forwarded by Paul Little/R5/USEPA/US on 07/26/2011 02:34 PM -----

From: "Craig, John (DNRE)" <CRAIGJ@michigan.gov>
To: Paul Little/R5/USEPA/US@EPA
Cc: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, "Shekter Smith, Liane (DNRE)" <SHEKTERL@michigan.gov>, "Browne, Elizabeth (DNRE)" <BROWNEE@michigan.gov>, "Lee, Lonnie (DNRE)" <LEEL@michigan.gov>
Date: 07/26/2011 01:51 PM
Subject: FW: Sawyer Tanker Incident

Paul, Here is the information we discussed about the incident in Michigan involving a shipment of hazardous waste from an Illinois TSD facility by an Ontario, Canada, HW transporter. The attachment entitled "FW: Recent Press: Sawyer Truck Plaza Explosion" has a link to a news website with a police car dash camera video of the actual tanker failure and release. There is also information from the U.S. EPA, Region 5, OSC, regarding the response to the incident. Thanks for your assistance with this. John

John Craig
Chief, Enforcement Section
Resource Management Division
Michigan Department of Environmental Quality
Constitution Hall
525 W. Allegan Street
P.O. Box 30241
Lansing, MI 48909

Phone: (517) 373-7923 Fax: (517) 373-4797
Internet: www.michigan.gov/deq

From: Schinderle, Jack (DNRE)
Sent: Tuesday, July 26, 2011 11:30 AM
To: Craig, John (DNRE)
Subject: Sawyer Tanker Incident

John,

Here is the information regarding the tanker failure and release.

----- Message from "Ballo, Frank (DNRE)" <BALLOF@michigan.gov> on Tue, 26 Jul 2011 09:22:11 -0400 -----

To: "Wurfel, Brad (DNRE)" <WurfelB@michigan.gov>, "Drus, Tracy (DNRE)" <DrusT@michigan.gov>

cc: "Marolf, Lynelle (DNRE)" <MAROLFL@michigan.gov>, "Merrick, JoAnn (DNRE)" <MerrickJ@michigan.gov>, "Schrantz, Phil (DNRE)" <SCHRANTZP@michigan.gov>, "Joseph, Susan (DNRE)" <JOSEPHS1@michigan.gov>, "Zimont, Ben (DNRE)" <ZIMONTB@michigan.gov>

Subject: Recent Press: Sawyer Truck Plaza Tanker Explosion

Here's some recent press regarding the above, not in chronological order (WSBT TV video -- first link -- is dramatic):

http://www.wsbt.com/videobeta/?watchId=3684be89-85e4-4832-904e-ced5ff5e2fc9

http://www.wndu.com/localnews/headlines/126063854.html

http://www.wndu.com/hometop/headlines/More_details_released_in_Sawyer_tanker_explosion_126125688.html

http://www.harborcountry-news.com/articles/2011/07/23/news/doc4e2ad9bc8a1aa191187149.txt

http://www.youtube.com/watch?v=bCu5qb9AjfM

RE: Clean Harbors

Schinderle, Jack (DNRE) to: Diane Sharrow 08/03/2011 10:43 AM

Cc: Lorna Jereza, Paul Little, "Craig, John (DNRE)", Mary Setnicar, "Deak, Nadine (DNRE)", "Sellers, Fred (DNRE)"

From: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>

To: Diane Sharrow/R5/USEPA/US@EPA

Cc: Lorna Jereza/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA, "Craig, John (DNRE)" <CRAIGJ@michigan.gov>, Mary Setnicar/R5/USEPA/US@EPA, "Deak, Nadine (DNRE)" <DEAKN@michigan.gov>, "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov>

History: This message has been replied to.

2 attachments

winmail.dat Clean Harbors Waste Manifest 000039888 MWI.PDF

Diane,

The manifest number for the load in question is 000039888MWI. I have attached a copy of the e-mail forwarding an electronic copy. Be aware that the manifest that accompanied the load may have looked different; signed and dated as well as having a transporter ID number. I will look into a scanned copy of the manifest held by the driver.

You may want to check into the export notifications for this material as the designated facility is in Ontario.

Let me know if you want to discuss prior to your inspection.

Jack Schinderle
DEQ
Hazardous Waste Section
517-373-8410

From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Tuesday, August 02, 2011 3:04 PM
To: Craig, John (DNRE); Schinderle, Jack (DNRE)
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Setnicar.Mary@epamail.epa.gov
Subject: Clean Harbors

John & jack,

I have been assigned to inspect Clean Harbors in light of the Sawyer Tanker Incident.

I was wondering if you could send me a copy / pdf of the manifest that was prepared by Clean Harbors for the transporter? Or at a minimum the Manifest Number?

I appreciate your assistance.

Diane M. Sharrow
Environmental Scientist/Senior Inspector

USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

RE: Clean Harbors
Sellers, Fred (DNRE)
to:
Schinderle, Jack (DNRE), Diane Sharrow
08/04/2011 07:12 AM
Cc:
Lorna Jereza, Paul Little, "Craig, John (DNRE)", Mary Setnicar, "Deak, Nadine (DNRE)"
Hide Details
From: "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov> Sort List...

To: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, Diane Sharrow/R5/USEPA/US@EPA

Cc: Lorna Jereza/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA, "Craig, John (DNRE)" <CRAIGJ@michigan.gov>, Mary Setnicar/R5/USEPA/US@EPA, "Deak, Nadine (DNRE)" <DEAKN@michigan.gov>

History: This message has been replied to and forwarded.

1 Attachment

signed manifest.pdf

Attached is the signed manifest.

From: Schinderle, Jack (DNRE)
Sent: Wednesday, August 03, 2011 11:42 AM
To: 'Sharrow.Diane@epamail.epa.gov'
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Craig, John (DNRE); Setnicar.Mary@epamail.epa.gov; Deak, Nadine (DNRE); Sellers, Fred (DNRE)
Subject: RE: Clean Harbors

Diane,

The manifest number for the load in question is 000039888MWI. I have attached a copy of the e-mail forwarding an electronic copy. Be aware that the manifest that accompanied the load may have looked different; signed and dated as well as having a transporter ID number. I will look into a scanned copy of the manifest held by the driver.

You may want to check into the export notifications for this material as the designated facility is in Ontario.

Let me know if you want to discuss prior to your inspection.

Jack Schinderle
DEQ
Hazardous Waste Section
517-373-8410

From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Tuesday, August 02, 2011 3:04 PM
To: Craig, John (DNRE); Schinderle, Jack (DNRE)
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Setnicar.Mary@epamail.epa.gov
Subject: Clean Harbors

John & jack,

I have been assigned to inspect Clean Harbors in light of the Sawyer Tanker Incident.

I was wondering if you could send me a copy / pdf of the manifest that was prepared by Clean Harbors for the transporter? Or at a minimum the Manifest Number?

I appreciate your assistance.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

Fw: Documents for Clean Harbors Chicago

William Damico to: Diane Sharrow 08/08/2011 08:46 AM

From: William Damico/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA

William Damico
312-353-8207 (v)
312-582-5113 (f)

----- Forwarded by William Damico/R5/USEPA/US on 08/08/2011 08:46 AM -----

From: Scott Nelson/DC/USEPA/US
To: William Damico/R5/USEPA/US@EPA
Date: 08/08/2011 07:48 AM
Subject: Re: Documents for Clean Harbors Chicago

Will:

I should be able to find the pertinent documents and send them to you by Wednesday of this week by fax or mail, or I will let you know otherwise.

William Damico | Scott, On July 21, a tanker truck carrying waste l... | 08/05/2011 10:51:56 AM

From: William Damico/R5/USEPA/US
To: Scott Nelson/DC/USEPA/US@EPA
Cc: Diane Sharrow/R5/USEPA/US@EPA
Date: 08/05/2011 10:51 AM
Subject: Documents for Clean Harbors Chicago

Scott,

On July 21, a tanker truck carrying waste loaded at the Clean Harbors facility in Chicago at 1445 W. 42nd St. (ILD005450697) exploded in SW Michigan. The truck was destined for Clean Harbors Canada in Corunna, ON.

To help us with our investigation, we would like to have copies of any acknowledgments of consent for export from Clean Harbors on 42nd Street in Chicago (as opposed to Clean Harbors on S. Stony Island in Chicago) to Clean Harbors in Corunna, ON. Also, we would like to have the most recent annual export report for the 42nd Street Clean Harbors facility in Chicago. Just so you know, I checked in WIETS and found one notice submitted for export for the Chicago facility but it had not been consented to yet.

How soon do you think you can have copies of those documents sent to us?

William Damico
312-353-8207 (v)
312-582-5113 (f)

Export documents for Clean Harbors on 42nd street

William Damico to: Diane Sharrow 08/08/2011 01:20 PM

From: William Damico/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA

I received a fax from Scott Nelson today that had two acknowledgments of consent for the Clean Harbors 42nd street facility. Both of these acknowledgement of consent were for shipments to the Mississauga facility not the Corruna facility on the manifest for the ill-fated July 21 shipment. Also, neither one seemed to have a waste stream that would include a primarily sodium hydroxide solution. They each contained organic bases and mixtures of orgnanics and bases but not inorganic bases.

I sent a reply to Scott asking for confirmation that there are no other active acknowledgement of consents for Clean Harbors 42nd street that would cover Clean Harbors Corruna as a destination facility.

However, this does not preclude the possibility that this export was properly notified and consented to even if there isn't another one. Another facility could be acting as the exporter under an agreement. That party would be responsible for obtaining consent and fulfilling the reporting requirements.

William Damico
312-353-8207 (v)
312-582-5113 (f)

Ask Clean Harbors who was acting as Exporter?

Documents for Clean Harbors Chicago

William Damico to: Scott Nelson 08/05/2011 09:51 AM
Cc: Diane Sharrow

From: William Damico/R5/USEPA/US
To: Scott Nelson/DC/USEPA/US@EPA
Cc: Diane Sharrow/R5/USEPA/US@EPA

Scott,

On July 21, a tanker truck carrying waste loaded at the Clean Harbors facility in Chicago at 1445 W. 42nd St. (ILD005450697) exploded in SW Michigan. The truck was destined for Clean Harbors Canada in Corunna, ON.

To help us with our investigation, we would like to have copies of any acknowledgments of consent for export from Clean Harbors on 42nd Street in Chicago (as opposed to Clean Harbors on S. Stony Island in Chicago) to Clean Harbors in Corunna, ON. Also, we would like to have the most recent annual export report for the 42nd Street Clean Harbors facility in Chicago. Just so you know, I checked in WIETS and found one notice submitted for export for the Chicago facility but it had not been consented to yet.

How soon do you think you can have copies of those documents sent to us?

William Damico
312-353-8207 (v)
312-582-5113 (f)

Re: Fw: RE: Clean Harbors
William Damico to: Diane Sharrow 08/04/2011 03:07 PM
Cc: Lorna Jereza

From: William Damico/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA
Cc: Lorna Jereza/R5/USEPA/US@EPA
History: This message has been replied to.

To a certain degree we can answer your question with WIETS. I can find out which notices had been filed and would be currently in effect for exports from the Clean Harbors originating site to the Clean Harbors facility in Corunna. To determine whether or not the specific waste stream is covered, we would have to get a copy of the actual notice from HQ. At the same time, I would suggest getting a copy of the most recent annual export report for the Clean Harbors Chicago facility. I can certainly help you with these.

William Damico
312-353-8207 (v)
312-582-5113 (f)

Diane Sharrow From: Diane Sharrow/R5/USEPA/US To: Willia... 08/04/2011 01:26:11 PM

From: Diane Sharrow/R5/USEPA/US
To: William Damico/R5/USEPA/US@EPA
Cc: Lorna Jereza/R5/USEPA/US@EPA
Date: 08/04/2011 01:26 PM
Subject: Fw: RE: Clean Harbors

Will,

Clean Harbors was sending this shipment to one of their facilities in Canada (see attached) before the tank trailer blevied at a truck stop at I-94 Exit 12 in Michigan. I have been asked to inspect teh Clean Harbors facility that originated the shipment about 7 hours before teh incident. Can the WIETS System be used to determine whwther this load was approved for export to Canada?

Thanks,

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

-----Forwarded by Diane Sharrow/R5/USEPA/US on 08/04/2011 01:22PM -----
To: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, Diane Sharrow/R5/USEPA/US@EPA
From: "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov>
Date: 08/04/2011 07:12AM
Cc: Lorna Jereza/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA, "Craig, John (DNRE)" <CRAIGJ@michigan.gov>, Mary Setnicar/R5/USEPA/US@EPA, "Deak, Nadine (DNRE)" <DEAKN@michigan.gov>
Subject: RE: Clean Harbors
(See attached file: signed manifest.pdf)

Attached is the signed manifest.

From: Schinderle, Jack (DNRE)
Sent: Wednesday, August 03, 2011 11:42 AM
To: 'Sharrow.Diane@epamail.epa.gov'
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Craig, John (DNRE); Setnicar.Mary@epamail.epa.gov; Deak, Nadine (DNRE); Sellers, Fred (DNRE)
Subject: RE: Clean Harbors

Diane,

The manifest number for the load in question is 000039888MWI. I have attached a copy of the e-mail forwarding an electronic copy. Be aware that the manifest that accompanied the load may have looked different; signed and dated as well as having a transporter ID number. I will look into a scanned copy of the manifest held by the driver.

You may want to check into the export notifications for this material as the designated facility is in Ontario.

Let me know if you want to discuss prior to your inspection.

Jack Schinderle

DEQ

Hazardous Waste Section

517-373-8410

From: Sharrow.Diane@epamail.epa.gov [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Tuesday, August 02, 2011 3:04 PM
To: Craig, John (DNRE); Schinderle, Jack (DNRE)
Cc: Jereza.Lorna@epamail.epa.gov; Little.Paul@epamail.epa.gov; Setnicar.Mary@epamail.epa.gov
Subject: Clean Harbors

John & jack,

I have been assigned to inspect Clean Harbors in light of the Sawyer Tanker Incident.

I was wondering if you could send me a copy / pdf of the manifest that was prepared by Clean Harbors for the transporter? Or at a minimum the Manifest Number?

I appreciate your assistance.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

[attachment "signed manifest.pdf" deleted by William Damico/R5/USEPA/US]

Clean Harbors RSC LLC
Diane Sharrow to: Paul.Purseglove, Todd.Marvel 08/05/2011 10:37 AM
Cc: Lorna Jereza, Spiros Bourgikos
Bcc: Diane Sharrow
This message is digitally signed.

From:	Diane Sharrow/R5/USEPA/US
To:	Paul.Purseglove@illinois.gov, Todd.Marvel@illinois.gov
Cc:	Lorna Jereza/R5/USEPA/US@EPA, Spiros Bourgikos/R5/USEPA/US@EPA
Bcc:	Diane Sharrow/R5/USEPA/US

Paul or Todd,

Can Region 5 obtain electronic copies of the three most recent CEIs of **Clean Harbors ILD 005 450 697** conducted by Illinois EPA on 12/09/2008, 12/03/2009, and 12/16/10?

On July 21, 2011, a tanker carrying a shipment of hazardous waste being exported from Clean Harbors to the Clean Harbors facility in Corunna, Ontario, Canada, exploded at Exit 12 of I-94 in sawyer, Michigan (see attached). The aluminum tanker was carrying sodium hydroxide even though the manifest indicated the waste was MEK.

I have been assigned to investigate, and I anticipate inspecting Clean Harbors soon.

Your assistance is appreciated.

Sawyer hazmat explosion -- wsbt_com.mht SemiExplosion - YouTube.mht

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM

DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

From: "Davison, Mike" <Mike.Davison@Illinois.gov>
To: Diane Sharrow/R5/USEPA/US@EPA
Cc: "Purseglove, Paul" <Paul.Purseglove@Illinois.gov>, "Marvel, Todd" <Todd.Marvel@Illinois.gov>

Date: Wednesday, March 07, 2012 08:33AM
Subject: FW: Request for RCRA permits --Clean Harbors Sawyer, MI Tanker Truck Explosion 0316000053/ILD005450697

History: This message has been replied to.

Diane,

Let me know if you need anything else.

Mike Davison
Illinois Environmental Protection Agency
Bureau of Land #24
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276
217-782-9295

-----Original Message-----
From: Foxworth, Ukanno
Sent: Wednesday, March 07, 2012 7:54 AM
To: Davison, Mike
Cc: Dragovich, Ted
Subject: RE: Request for RCRA permits --Clean Harbors Sawyer, MI Tanker Truck Explosion 0316000053/ILD005450697

Good morning Mike,

I have attached a the electronic version of Clean Harbors RCRA permits, document (B121RM3) is the permit for when the facility change ownership from Safety-Keen to Clean Harbors, and the other document is the latest current permit on file. I hope this information is what you where requesting.

Ukanno Foxworth
Environmental Protection Engineer
Disposal Alternative Unit - Permit Section Illinois Environmental Protection Agency
Bureau of Land # 33
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
(217) 558-4717
(217) 524-3291 (Fax)

-----Original Message-----
From: Dragovich, Ted
Sent: Monday, March 05, 2012 11:50 AM
To: Foxworth, Ukanno
Cc: Davison, Mike
Subject: FW: Clean Harbors Sawyer, MI Tanker Truck Explosion 0316000053/ILD005450697

Ukanno,

I know that you are not that familiar with this site yet, but please work with Mike Davison and try to determine which modifications would contain the permit transfer. Mike

can collect the documents. He needs to know what file they are in and what the log numbers are.

-----Original Message-----
From: Davison, Mike
Sent: Monday, March 05, 2012 11:42 AM
To: Dragovich, Ted
Subject: FW: Clean Harbors Sawyer, MI Tanker Truck Explosion 0316000053/ILD005450697

Ted,

Here is the document request from USEPA. See the portion addressed to Todd and Paul.

Thanks,

Mike

-----Original Message-----
From: Purseglove, Paul
Sent: Monday, March 05, 2012 11:00 AM
To: Davison, Mike
Subject: FW: Clean Harbors Sawyer, MI Tanker Truck Explosion

Mike can you take care of this request?

Paul M. Purseglove
Illinois EPA
Manager, Field Operations
Bureau of Land
1021 North Grand Avenue East
Springfield, IL 62794-9276
direct-217.524.5597 | cell-217.725.5432 | fax-217.524.1991 paul.purseglove@illinois.gov

-----Original Message-----
From: Diane Sharrow [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Monday, March 05, 2012 6:54 AM
To: Marvel, Todd; Purseglove, Paul; craigj@michigan.gov
Cc: Lorna Jereza; Mark Palermo
Subject: Fw: Clean Harbors Sawyer, MI Tanker Truck Explosion

Todd and Paul,

Would it be possible to obtain copies (electronic if possible) of all IEPA documents regarding the transfer of the permit from Safety Kleen to Clean harbors? As well as any documents submitted after the issuance of the permit regarding the facility waste analysis plan?

We are not certain that the USEPA Region 5 files contain hard copies of all this information.

We do have a copy of the Part A and Part B Permit application and what appears to be the permit issued by IEPA and the USEPA, but we want to make sure that these are the correct / official copies.

John,

Would it be possible to obtain copies of any documents that MDEQ may have regarding the

issuance of a USEPA Identification Number to the Canadian transporter Marcus Trucking?

Thank you,

Your assistance is appreciated.

Diane M. Sharrow
Environmental Scientist/Senior Inspector USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1 Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity.
To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

----- Forwarded by Diane Sharrow/R5/USEPA/US on 03/05/2012 06:46 AM

From: Diane Sharrow/R5/USEPA/US
To: todd.marvel@illinois.gov, paul.purseglove@illinois.gov,
craigj@michigan.gov
Cc: Mark Palermo/R5/USEPA/US@EPA, Lorna Jereza/R5/USEPA/US@EPA
Date: 03/05/2012 06:46 AM
Subject: Clean Harbors Sawyer, MI Tanker Truck Explosion

John, Paul and Todd,

DOT's action against Clean harbors is attached.

It is public information.

Thank you,

Diane M. Sharrow
Environmental Scientist/Senior Inspector USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1 Mail Code LR-8J

77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

[attachment "Clean Harbors NOPV.pdf" deleted by Diane Sharrow/R5/USEPA/US]

Attachments:

Clean Harbors Recycling0316000053.pdf 0316000053 B121RM3.pdf

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

DAN WYANT
DIRECTOR

NOTICE No. EN-000146

CERTIFIED MAIL 7007 1490 0003 9692 3578

Mr. Gary Malinowski
Senior Compliance Manager
Clean Harbors Recycling Services of Chicago, LLC
1445 West 42nd Street
Chicago, Illinois 60609

ENFORCEMENT NOTICE

Dear Mr. Malinowski:

SUBJECT: Tanker Explosion - Travel America Truck Stop (July 21, 2011)
6100 Sawyer Road
Sawyer, Michigan 49085

The Michigan Department of Environmental Quality (MDEQ), Water Resources Division (WRD), Kalamazoo District Office, has referred this matter to the WRD's Water Enforcement Unit requesting initiation of an escalated enforcement action to recover the MDEQ's costs; natural resource damages; and a civil fine associated with a tanker truck explosion that occurred at the Travel America Truck Stop located in Sawyer, Michigan (Sawyer Truck Stop).

On July 21, 2011, MDEQ staff responded to an incident at the Sawyer Truck Stop where a tanker truck had exploded and spilled its contents. Some of the content was contained, but an undetermined amount was released to the storm sewer and subsequently to the Sawyer Village Drain, commonly known as Sawyer Creek which is a tributary to Lake Michigan. The waste manifest for the truck's content identified it as methyl ethyl ketone; however, subsequent analytical results determined that the primary component of the waste was sodium hydroxide. The high pH of the waste allowed the MDEQ to document and track the release in the creek using pH meters. The spill resulted in a fish kill of approximately 99 fish in Sawyer Creek and closure of the Warren Dunes State Park beach area for twelve hours. Clean Harbors Recycling Services of Chicago, LLC (Clean Harbors) has been identified by the MDEQ as the owner of the contents of the truck and responsible for the unauthorized discharge to the creek.

The release to Sawyer Creek was an unauthorized discharge to the waters of the state and contained injurious substances in violation of Section 3109(1) of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, (NREPA) which states:

(1) A person shall not directly or indirectly discharge into the waters of the state a substance that is or may become injurious to any of the following:

(a) To the public health, safety, or welfare
(b) To domestic, commercial, industrial, agricultural, recreational, or other uses that are being made or may be made of such waters.

(c) To the value or utility of riparian lands.
(d) To livestock, wild animals, birds, fish, aquatic life, or plants or to their growth or propagation.
(e) To the value of fish and game.

Clean Harbors is also liable for the full value of injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction or loss resulting from the release pursuant to Section 20126a of Part 201, Environmental Remediation, of the NREPA, which states:

(1) Except as provided in Section 20126(2), a person who is liable under section 20126 is jointly and severally liable for all of the following:

(a) All costs of response activity lawfully incurred by the state relating to the selection and implementation of response activity under this part.
(b) Any other costs of response activity reasonably incurred under the circumstances by any other person.
(c) Damages for the full value of injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing the injury, destruction, or loss resulting from the release.

An assessment for the loss of natural resources includes both the affected natural resources and the loss of services provided by that resource. The two significant natural resource damage losses directly attributable to the spill are the service loss at the Warren Dunes State Park and mortality to fish in Sawyer Creek.

The issues identified in this Enforcement Notice, as well as any additional violations discovered hereafter, must be formally resolved through entry of an Administrative Consent Order (Consent Order). The Consent Order will include provisions for reimbursement of MDEQ's costs incurred as a result of the spill; payment for natural resource damages; and payment of a civil fine for violating Part 31 of the NREPA. If Clean Harbors is willing to enter into a Consent Order, a draft Consent Order will be developed and sent to you under separate cover. In the event that Clean Harbors refuses to resolve this matter through entry of a Consent Order, the matter will be referred for litigation.

Clean Harbors may request a preliminary meeting with the MDEQ, WRD enforcement staff to discuss the issues detailed in this Enforcement Notice. If you would like to participate in such a meeting, please contact Ms. Barb Schaibly, Enforcement Specialist, Water Enforcement Unit, WRD, at 517-335-2207, not later than ten days from your receipt of this Enforcement Notice.

STATE OF MICHIGAN
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION

Date Issued: _____

_____
Barry H. Selden, Chief
Water Enforcement Unit
Water Resources Division

ADDRESS FOR FURTHER CORRESPONDENCE:

Barb Schaibly, Enforcement Specialist
Water Enforcement Unit
Water Resources Division
P.O. Box 30458
Lansing, Michigan 48909-7958

cc: Ms. Theresa Holz, United States Environmental Protection Agency
Mr. Cory Burks, Berrien County Emergency Management Coordinator
Mr. Michael Davidson, Chikaming Township Fire Chief
Mr. Randal Badiuk, Harold Marcus, Ltd.
Mr. Frank Ballo, MDEQ
Mr. Peter Ostlund, MDEQ
Mr. Kameron Jordan, MDEQ
Mr. Fred Sellers, MDEQ
Ms. Barb Schaibly, MDEQ

Fw: Marcus Trucking / Clean Harbors

Mark Palermo to: Diane Sharrow 04/06/2012 10:26 AM

From: Mark Palermo/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA

----- Forwarded by Mark Palermo/R5/USEPA/US on 04/06/2012 10:26 AM -----

From: Diane Sharrow/R5/USEPA/US
To: Mark Palermo/R5/USEPA/US@EPA
Date: 03/14/2012 07:06 AM
Subject: Fw: Marcus Trucking / Clean Harbors

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

----- Forwarded by Diane Sharrow/R5/USEPA/US on 03/14/2012 07:06 AM -----

From: "Schaibly, Barbara (DEQ)" <SCHAIBLYB@michigan.gov>
To: Diane Sharrow/R5/USEPA/US@EPA
Date: 03/13/2012 10:07 AM
Subject: FW: Marcus Trucking / Clean Harbors

Per John's request, attached are the Enforcement Notices that were sent to Clean Harbors and Marcus Trucking.

At this point there is not an attorney assigned from our AG's office. We are still in the initial stages of negotiations and have not filed an action against either of the parties.

Barb Schaibly
Michigan Department of Environmental Quality
Water Resources Division
Enforcement Unit
517-335-2207
schaiblyb@michigan.gov

From: Craig, John (DEQ)
Sent: Monday, March 12, 2012 3:24 PM
To: Schaibly, Barbara (DEQ)
Subject: FW: Marcus Trucking / Clean Harbors

Barb, Can you please respond to this request? Thanks. John

From: Diane Sharrow [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Friday, March 09, 2012 5:14 PM
To: Craig, John (DEQ)
Cc: Mark Palermo
Subject: Marcus Trucking / Clean Harbors

John,

We were wondering if we can obtain copies of the actions filed DEQ Water Resources Division has filed or issued (if they have been filed or issued)?

Also, can you tell us if there is an attorney from the AG's office assigned and if so can we get their name and phone number?

Or would they be willing to call Mark Palermo, the attorney here in Region 5 working with me on the Marcus Trucking / Clean Harbors investigation?

Mark Palermo's phone number is 312-886-6082.

Thank you,

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.[attachment "Clean Harbors Enforcement Notice_12-12-2011.pdf" deleted by Diane Sharrow/R5/USEPA/US] [attachment "Harold Marcus Enforcement Notice.pdf" deleted by Diane Sharrow/R5/USEPA/US]

Fw: FYI _ MI Enf Notice to Clean Harbors Chicago

Mark Palermo to: Diane Sharrow 04/06/2012 10:26 AM

From: Mark Palermo/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA

----- Forwarded by Mark Palermo/R5/USEPA/US on 04/06/2012 10:26 AM -----

From: Diane Sharrow/R5/USEPA/US
To: Mike.Davison@illinois.gov, Todd.Marvel@illinois.gov
Cc: Lorna Jereza/R5/USEPA/US@EPA, Mark Palermo/R5/USEPA/US@EPA
Date: 03/14/2012 07:06 AM
Subject: FYI _ MI Enf Notice to Clean Harbors Chicago

FYI

DEQ.EnfNot.CH.pdf

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

Re: Fw: Sawyer Tanker Incident
Lorna Jereza to: Diane Sharrow 07/28/2011 05:05 PM

From: Lorna Jereza/R5/USEPA/US
To: Diane Sharrow/R5/USEPA/US@EPA
History: This message has been replied to.

If you read the message from Frank Ballo, DNRE below, you would see that Clean Harbors is the ownner of the released materials (incompatible with the aluminum tanker that exploded). An inspection of Clean Harbors should be conducted sooner or later (not critical at this time). Also, nothing was promised to MDEQ. They can't take any enforcement action against Clean Harbors which is located in another state (IL).

Lorna M. Jereza, Chief
Compliance Section 1
RCRA Branch
Land and Chemicals Division (LR-8J)
U.S. EPA, Region 5, Chicago
Telephone: (312) 353-5110
Facsimile: (312) 385-5519

Diane Sharrow The first video in the attached actually shows th... 07/28/2011 07:33:56 AM

From: Diane Sharrow/R5/USEPA/US
To: Lorna Jereza/R5/USEPA/US@EPA
Cc: Mary Setnicar/R5/USEPA/US@EPA, Paul Little/R5/USEPA/US@EPA
Date: 07/28/2011 07:33 AM
Subject: Re: Fw: Sawyer Tanker Incident

Lorna,

What is the name of the IL facility - I am accessing remotely, but nowhere in the chain of communication do I see a name of the IL facility you ask me to followup with? Is this time critical - as I am returning from inspections in MN / out of office until next Monday. Do you want an inspection? What was promised to MDEQ? More specific direction on work voicemail or e-mail would be appreciated.

Thanks,

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

-----Lorna Jereza/R5/USEPA/US wrote: -----
To: Diane Sharrow/R5/USEPA/US@EPA
From: Lorna Jereza/R5/USEPA/US
Date: 07/26/2011 03:09PM
Cc: Paul Little/R5/USEPA/US@EPA, Mary Setnicar/R5/USEPA/US@EPA
Subject: Fw: Sawyer Tanker Incident

Please conduct a follow-up investigation of the Illinois facility where the hazardous waste came from.

Lorna M. Jereza, Chief
Compliance Section 1
RCRA Branch
Land and Chemicals Division (LR-8J)
U.S. EPA, Region 5, Chicago
Telephone: (312) 353-5110
Facsimile: (312) 385-5519
----- Forwarded by Lorna Jereza/R5/USEPA/US on 07/26/2011 03:00 PM -----

From: Paul Little/R5/USEPA/US
To: Lorna Jereza/R5/USEPA/US@EPA
Date: 07/26/2011 02:25 PM
Subject: Fw: Sawyer Tanker Incident

As discussed, here is referral from MDEQ regarding an Illinois company.
----- Forwarded by Paul Little/R5/USEPA/US on 07/26/2011 02:22 PM -----

From: "Craig, John (DNRE)" <CRAIGJ@michigan.gov>
To: Paul Little/R5/USEPA/US@EPA
Cc: "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, "Shekter Smith, Liane (DNRE)" <SHEKTERL@michigan.gov>, "Browne, Elizabeth (DNRE)" <BROWNEE@michigan.gov>, "Lee, Lonnie (DNRE)" <LEEL@michigan.gov>
Date: 07/26/2011 01:51 PM
Subject: FW: Sawyer Tanker Incident

Paul, Here is the information we discussed about the incident in Michigan involving a shipment of hazardous waste from an Illinois TSD facility by an Ontario, Canada, HW transporter. The attachment entitled "FW: Recent Press: Sawyer Truck Plaza Explosion" has a link to a news website with a police car dash camera video of the actual tanker failure and release. There is also information from the U.S. EPA,

Region 5, OSC, regarding the response to the incident. Thanks for your assistance with this. John

John Craig
Chief, Enforcement Section
Resource Management Division
Michigan Department of Environmental Quality
Constitution Hall
525 W. Allegan Street
P.O. Box 30241
Lansing, MI 48909

Phone: (517) 373-7923 Fax: (517) 373-4797
Internet: www.michigan.gov/deq

From: Schinderle, Jack (DNRE)
Sent: Tuesday, July 26, 2011 11:30 AM
To: Craig, John (DNRE)
Subject: Sawyer Tanker Incident

John,

Here is the information regarding the tanker failure and release.
----- Message from "Marolf, Lynelle (DNRE)" <MAROLFL@michigan.gov> on Tue, 26 Jul 2011 10:11:04 -0400 -----

To: "Sygo, Jim (DNRE)" <SygoJ@michigan.gov>, "Shekter Smith, Liane (DNRE)" <SHEKTERL@michigan.gov>, "VanOtteren, Bruce (DNRE)" <VANOTTERENB@michigan.gov>, "Hagler, Gary (DNRE)" <HAGLERG@michigan.gov>, "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>
Subject: FW: Recent Press: Sawyer Truck Plaza Tanker Explosion

The first video in the attached actually shows the truck exploding.
----- Message from "Ballo, Frank (DNRE)" <BALLOF@michigan.gov> on Tue, 26 Jul 2011 09:22:11 -0400 -----

To: "Wurfel, Brad (DNRE)" <WurfelB@michigan.gov>, "Drus, Tracy (DNRE)" <DrusT@michigan.gov>
cc: "Marolf, Lynelle (DNRE)" <MAROLFL@michigan.gov>, "Merrick, JoAnn (DNRE)" <MerrickJ@michigan.gov>, "Schrantz, Phil (DNRE)" <SCHRANTZP@michigan.gov>, "Joseph, Susan (DNRE)" <JOSEPHS1@michigan.gov>, "Zimont, Ben (DNRE)" <ZIMONTB@michigan.gov>
Subject: Recent Press: Sawyer Truck Plaza Tanker Explosion

Here's some recent press regarding the above, not in chronological order (WSBT TV video is dramatic):

http://www.wsbt.com/videobeta/?watchId=3684be89-85e4-4832-904e-ced5ff5e2fc9

http://www.wndu.com/localnews/headlines/126063854.html

http://www.wndu.com/hometop/headlines/More_details_released_in_Sawyer_tanker_explosion_126125688.html

http://www.harborcountry-news.com/articles/2011/07/23/news/doc4e2ad9bc8a1aa191187149.txt

http://www.youtube.com/watch?v=bCu5qb9AjfM

----- Message from "Ballo, Frank (DNRE)" <BALLOF@michigan.gov> on Mon, 25 Jul 2011 13:32:47 -0400 -----

To: "Ballo, Frank (DNRE)" <BALLOF@michigan.gov>, "VanOtteren, Bruce (DNRE)" <VANOTTERENB@michigan.gov>, DEQ-PEAS <DEQ-PEAS@michigan.gov>, "Dettloff, Mary (DNRE)" <DETTLOFFM1@michigan.gov>, "Fobbs, Terry (DELEG)" <FobbsT@michigan.gov>, "Gross, Randy (DNRE)" <GrossR2@michigan.gov>, "Hagler, Gary (DNRE)" <HAGLERG@michigan.gov>, "Hobrat, Ralph" <HobratR@michigan.gov>, "Jones, Lynda (DNR)" <JONESL10@michigan.gov>, "Kanicki Wilson, Bonnie" <KanickiB@michigan.gov>, "Krzanowski, Karen" <KrzanowskiK@michigan.gov>, "Merrick, JoAnn (DNRE)" <MerrickJ@michigan.gov>, "Molnar, Dean (DNRE)" <MolnarD@michigan.gov>, "OperationsLts, Lieutenants" <OperationsLts@michigan.gov>, "Phifer, Eileen" <PhiferE@michigan.gov>, "Porcello, James" <PorcellJ@michigan.gov>, "Quiggle, Lisa" <QuiggleL@michigan.gov>, "Sadler, Taunia (DNRE)" <SadlerT@michigan.gov>, "Shaler, Karen (DNRE)" <SHALERK@michigan.gov>, "Smith, Kelley (DNRE)" <SMITHK@michigan.gov>, "Stokes, Rodney (DNRE)" <STOKESR@michigan.gov>, "Sygo, Jim (DNRE)" <SygoJ@michigan.gov>, "Thelen, Mary Beth (DNRE)" <THELENM2@michigan.gov>, "Tkaczyk, Judy (DNR)" <TKACZYKJ@michigan.gov>, "Vallier, Connie" <VallierCo@michigan.gov>, "Wingate, Thomas (DNRE)" <WINGATET@michigan.gov>, "Wolf, Jennifer (DNRE)" <WOLFJ1@michigan.gov>, "Woods, Vence (DNRE)" <WOODSV1@michigan.gov>, "Wurfel, Brad (DNRE)" <WurfelB@michigan.gov>, "Wyant, Dan" <WyantD@michigan.gov>, "Adelman, Mitch (DEQ)" <ADELMANM@michigan.gov>, "Casey, Steve (DNRE)" <CASEYS@michigan.gov>, "Hall, Ben (DNRE)" <HALLB1@michigan.gov>, "Hare, Chris (DNRE)" <HAREC@michigan.gov>, "Hartz, Andrew (DNRE)" <HARTZA@michigan.gov>, "Hollenbach, Heidi (DNRE)" <HOLLENBACHH@michigan.gov>, "Roycraft, Phil (DNRE)" <ROYCRAFTP@michigan.gov>, "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov>, "Boucher, Cara (DNRE)" <BOUCHERC@michigan.gov>, "Boyd, Lynne (DNRE)" <BoydL1@michigan.gov>, "Browne, Elizabeth (DNRE)" <BROWNEE@michigan.gov>, "Creal, William (DNRE)" <CREALW@michigan.gov>, "Fiedler, Lynn (DNRE)" <FIEDLERL@michigan.gov>, "Fish, Kim (DNRE)" <FISHK@michigan.gov>, "Hellwig, Vince (DNRE)" <HELLWIGV@michigan.gov>, "Marolf, Lynelle (DNRE)" <MAROLFL@michigan.gov>, "Mason, Russ (DNRE)" <MasonR2@michigan.gov>, "Olson, Ron (DNRE)" <OLSONR@michigan.gov>, "Reeves, Douglas (DNRE)" <REEVESD@michigan.gov>, "Ruswick, Frank (DNRE)"

<RuswickF@michigan.gov>, "Shekter Smith, Liane (DNRE)" <SHEKTERL@michigan.gov>, "Barnard, Vicki (DNRE)" <BARNARDV@michigan.gov>, "Lee, Lonnie (DNRE)" <LEEL@michigan.gov>, "Masterson, Mike (DNRE)" <MASTERSONM@michigan.gov>, "Ostlund, Peter (DNRE)" <OSTLUNDP@michigan.gov>, "Schrantz, Phil (DNRE)" <SCHRANTZP@michigan.gov>, "Seidel, Teresa (DNRE)" <SEIDELT@michigan.gov>, "Franks, Robert (DNRE)" <FRANKSR1@michigan.gov>, "Julien, Tom (DNRE)" <JULIENT@michigan.gov>, "Lawson, Autumn (DNRE)" <LAWSONA@michigan.gov>, "Mroczkowski, Kenneth (DEQ)" <MROCZKOWSKIK@michigan.gov>, "Schleusener, Paul (DNRE)" <SCHLEUSENERP@michigan.gov>, "Yocum, William (DNRE)" <YOCUMW@michigan.gov>, "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, "Noechel, Jeanette (DNRE)" <NOECHELJ@michigan.gov>, "Zimont, Ben (DNRE)" <ZIMONTB@michigan.gov>, "Whitmyer, Nathan (DNRE)" <WHITMYERN@michigan.gov>, "Worrall, Mark (DNRE)" <WORRALLM@michigan.gov>, "Ford, William (DNRE)" <FORDW2@michigan.gov>, "Heywood, David (DNRE)" <HeywoodD1@michigan.gov>, "Norton, Steven (DNRE)" <NORTONS@michigan.gov>

cc: "Jordan, Kameron (DNRE)" <JORDANK@michigan.gov>, "Douglas, Mary (DNRE)" <DOUGLASM@michigan.gov>, "Emmanouil, Stavros (emmanouil.stavros@epa.gov)" <emmanouil.stavros@epa.gov>, "'holz.theresa@epa.gov'" <holz.theresa@epa.gov>, "Groetsch, Kory J." <GroetschK@michigan.gov>, "el-zein@epa.gov" <el-zein@epa.gov>, "lippert.jeffrey@epa.gov" <lippert.jeffrey@epa.gov>

Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co. FINAL UPDATE

Staff from Kalamazoo District's Water Resources, Resource Management, Remediation, and Law (Environmental Investigations) Divisions met this morning to discuss the incident and plan next steps. This is a summary of that meeting, additional information we've received, what needs to be done, and who will be on point for what.

Clean Harbor's (CH's) contractors are on-site today engaged in various activities. Most-recent creek samples collected this morning indicated:

Storm sewer outfall (former first dam location): pH 7.72
Tower Hill Road (former second dam location: pH 7.63
Ravenswood (former third dam location): pH 7.50
Creek mouth (~200 feet upstream from Lake Michigan): pH 7.66

CH is currently: 1)collecting pH samples from various creek locations every two hours, but WRD says they can lessen that activity to every 4 or 6 hours until a rain event, when the frequency should be increased back to every two hours; 2)completing stream restoration activities today; and 3)developing a plan for drilling through asphalt to investigate soil samples beneath the road and parking lot, removing stressed vegetation and impacted soils in other areas, and collecting post response soil samples to confirm the adequacy of site cleanup.

RD is working with CH and EPA to assure all analytical results are shared among the three parties. RD staff is enroute to the site to assess the current situation and interface with CH about DEQ's expectations on further cleanup. RD has started receiving final DEQ lab results, and has confirmed that preliminary lab analyses did not detected the presence of Cesium in waste or water samples.

WRD is compiling all its water quality data collected on site for sharing purposes. WRD also has: 1)arranged for DNR Fisheries Division (FD) to pick up dead fish for species identification and documentation; 2)scheduled its Surface Water Assessment Section with FD to conducted a biological assessment of Deer Creek tomorrow, with 2 subsequent assessments planned for later this summer; 3)confirmed that Bridgman's public water intake samples maintained a constant pH of 7.7 since the spill and up to 4 pm Saturday; and 4)contacted the Berrien County Health Department to maintain the prohibition against contact for stream property owners until after the next rain event and sampling.

RMD will attempt to get copies of all relevant waste information, including batch or other analytical results, and continue its investigation regarding generation, transporter, or other violations.

LD-EIS has opened a criminal case on the incident, is continuing its investigation including interviews and document acquisition, and has learned that USDOT investigation staff is planning an inspection at CH this Wednesday and Thursday. 7/27 & 7/28

This incident has transitioned from emergency to standard oversight mode, and thus RD Chief Lynelle Marolf suggests it should be unnecessary to generate continuing updates to all the above recipients.

The following staff are on-point for the various programs, so please contact them if you have questions or need additional information:

LD-EIS investigation: Det/Sgt Bill Ford (269-567-3505, fordw2@michigan.gov)

RMD hazardous waste investigation and public water supply issues: Fred Sellers (269-567-3595, sellersf@michigan.gov)

WRD surface water, sediment, flood plain, and wetland issues: Kam Jordan (269-567-3565, jordank@michigan.gov)

RD soil and groundwater sampling and/or cleanup: Ben Zimont (269-567-3532, zimontb@michigan.gov), or if Ben is unavailable: Frank Ballo (269-567-3531, ballof@michigan.gov)

Thanks very much to everyone who participated and assisted in this event.

-----Original Message-----
From: Marolf, Lynelle (DNRE)
Sent: Sunday, July 24, 2011 3:50 PM
To: Creal, William (DNRE); Hagler, Gary (DNRE); Ballo, Frank (DNRE); Schrantz, Phil (DNRE); Sygo, Jim (DNRE); Wyant, Dan
Cc: Shekter Smith, Liane (DNRE); Olson, Ron (DNRE); Hoffman, Mark (DNRE); Wurfel, Brad (DNRE); Jordan, Kameron (DNRE)
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Kam's decision makes sense.

Frank Ballo - please confer with Kam tomorrow and advise the full group on what follow up remains to be done and which Division(s) will have the lead(s). Parks Division should know who to contact if questions arise.

Thanks.

From: Creal, William (DNRE)
Sent: Sunday, July 24, 2011 3:38 PM
To: Hagler, Gary (DNRE)
Cc: Marolf, Lynelle (DNRE); Shekter Smith, Liane (DNRE); Olson, Ron (DNRE); Hoffman, Mark (DNRE); Wurfel, Brad (DNRE)
Subject: Re: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Kam is not on site anymore. He and Epa saw no remaining risk now that the berms have been removed and the truck stop cleaned up. They left after the berms were removed and pH readings stayed normal.

----- Original Message -----
From: Hagler, Gary (DNRE)
To: Creal, William (DNRE)
Cc: Marolf, Lynelle (DNRE); Shekter Smith, Liane (DNRE); Olson, Ron (DNRE); Hoffman, Mark (DNRE); Wurfel, Brad (DNRE)
Sent: Sun Jul 24 14:02:15 2011
Subject: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Bill,

Are you good with staying the course of the current plan moving forward ie. keeping the beach open at the state park while maintiaining Ph readings on a regular basis? In talking to Lynelle she believes maintaining our current course/plan would be the correct option. I think Cam Jordan is on site continuing monitoring.

Thanks
Gary

-----Original Message-----
From: Ballo, Frank (DNRE)
Sent: Sunday, July 24, 2011 11:10 AM
To: Ballo, Frank (DNRE); VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE); Noechel, Jeanette (DNRE); Zimont, Ben (DNRE); Whitmyer, Nathan (DNRE); Worrall, Mark (DNRE)
Cc: Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Emmanouil, Stavros

(emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.; el-zein@epa.gov; lippert.jeffrey@epa.gov
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Update: July 24, 2011, 10:00 am

I've talked several times this morning with WRD's Kam Jordan, who has been at the site since 6:40 am. Last night, it had been decided to implement a controlled release of water and dam removal starting at 8:00 am today. It was reported to Kam that CH and/or EPA had inspected the dams at 2:00 am and 4:00 am, however when he arrived at the mouth of Deer Creek, the water level in the creek was approximately three times normal and the creek was filled with sediment. Apparently the first and second dams had failed sometime after 4:00 am, releasing the water, built up sediments, and dam materials downstream, pouring over the third dam and out into Lake Michigan. Kam and others immediately began to measure pH readings at the mouth of the river (50 to 100 feet upstream from the lake) and along the lakeshore up to 100 yards north and south of the mouth. He and EPA provided some of their pH readings:

Mouth:
6:54 am: pH 8.04
7:15 am: pH 9.31
7:38 am: pH 9.34
8:20 am: pH 9.30
8:21 am: pH 8.94
8:39 am: pH 8.56
10: 19 am: pH 8.61

Lake Michigan shoreline:
6:57 am to 8:10 am: pH 8.38-8.87
8:12 am: pH 8.50
8:14 am: pH 8.49
8.16 am: pH 8.48
8:21 am: pH 8.23
8:24 am: pH 8.25
8:39 am: pH 8.28
10:50 am: pH 8.51

Creek locations from first dam downstream to 1/4 mile from mouth:
8:50 am to 10:50 am: pH 8.16-8.87

The creek at the mouth has since fallen to levels similar to those seen yesterday. CH is in the process of installing a silk screen at the creek confluence in Lake Michigan to collect any continuing sediment and removing remaining dam material. At this time, CH, DEQ, and EPA feel that, despite failure of the dams and some elevated pH readings in the creek, the situation is generally under control. They will continue monitoring at all locations, and EPA plans to demobilize sometime today. There are plans (probably starting tomorrow) to conduct impacted vegetation and soil removal at the truck stop to address two areas of explosion splash and to conduct asphalt borings to evaluate road and parking lot integrity and determine if there are impacts to soils underneath. Kam Jordan (269-270-1102) is currently on site.

Frank Ballo (269-806-6137)

From: Ballo, Frank (DNRE)
Sent: Saturday, July 23, 2011 2:25 PM
To: Ballo, Frank (DNRE); VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen;

Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE); Noechel, Jeanette (DNRE); Zimont, Ben (DNRE); Whitmyer, Nathan (DNRE); Worrall, Mark (DNRE)
Cc: Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.; el-zein@epa.gov; lippert.jeff@epa.gov
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

In review I see I made an error in describing the locations of Downstream #1 and Downstream #2. I have corrected it below, so please delete earlier email Thank you...

From: Ballo, Frank (DNRE)
Sent: Saturday, July 23, 2011 2:09 PM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE); Noechel, Jeanette (DNRE); Zimont, Ben (DNRE); Whitmyer, Nathan (DNRE); Worrall, Mark (DNRE)
Cc: Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.; el-zein@epa.gov; lippert.jeff@epa.gov
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

This is an update on the tanker blevy, monitoring, and cleanup at the Sawyer Truck Plaza and Deer Creek as of 2:00 pm Saturday, July 23, 2011.

Rain at the site last night, although not as severe as the Chicago area, forced stoppage of most activities due to electrical storms. Activities recommenced this morning, work expected to continue in any rain as long as there are no electrical storms.

Air monitoring continues to record no exposure risks. To date, Clean Harbors (CH) has completed cleanup of the road, the parking lot (berms in place but should be loaded into rolloffs shortly), and the ruptured tanker truck (which may be off-site at this time), and is vaccing material above the second dam. Two of four vac trucks left the site this morning, but they're back up to 3-4 tank vacs with 4 semi-loaded frac tanks.

Air monitoring continues to record no exposure risks. CH has run analyses of samples collected yesterday of product, product-water mixture bermed in the road, and water samples from above each of two stream dams. VOCs and peroxide non-detect and caustic and pH levels as expected given the reported nature of the material and field pH levels reported. Those results will be forwarded by email and shared with the group. EPA's start contractor continues to split samples with CH.

DEQ preliminary, verbal, and unreviewed analytical results from samples collected yesterday afternoon:

Waste samples from tanker truck and waste-water mixture samples from puddle in parking lot:
Tanker #1 VOCs 160 ppb p-isopropyl toluene (PIPT), all others ND (elevated MDLs due to 50x dilution)
Tanker #2 VOCs all ND (elevated MDLs due to 50x dilution)
Tanker #3 VOCs all ND (elevated MDLs due to 50x dilution)
Tanker #4 VOCs all ND (elevated MDLs due to 50x dilution)
Tanker #5 VOCs all ND (elevated MDLs due to 50x dilution)
Tanker #6 VOCs all ND (elevated MDLs due to 50x dilution)
Pk Lot #1 VOCs 110 ppb acetone, 10 ppb methyl ethyl ketone (MEK), 5.7 ppb PIPT, all others ND (standard MDLs)
Pk Lot #2 VOCs 100 ppb acetone, 6.3 ppb MEK, 6.8 ppb PIPT, all others ND (standard MDLs)
Pk Lot #3 VOCs 100 ppb acetone, 6.9 ppb MEK, 6.9 ppb PIPT, all others ND (standard MDLs)

Water samples from downstream locations near Red Arrow Highway (approx 1/4 mile from storm sewer outfall - Downstream #1) and above first dam at outfall (Downstream #2):
Downstream #1 Na 948 mg/L; pH 12.37; VOCs 5.2 ppb MEK, all others ND (standard MDLs): Metals: Al 110,000 ug/L, Zn 42 ug/L, Se <1 ug/L, Pb 11 ug/L, Ba 21 ug/L, As 17 ug/L, Ag 0.26 ug/L, Cu 48 ug/L, Cr 3.8 ug/L, Cd 0.824 ug/L
Downstream #2 Na 169 mg/L; pH 9.93; VOCs all ND (standard MDLs): Metals: Al 4,600 ug/L, Zn <10 ug/L, Se <1 ug/L, Pb <1 ug/L, Ba 15 ug/l, As 1.0 ug/L, Ag < 0.2 ug/L, Cu 2.4 ug/L, Cr <1, Cd < 0.5 ug/L
(The higher concentrations in Downstream #2, although further upstream that Downstream #1, were not surprising due to the outfall being "flushed" by recent "clean" stormwater coming from spill site and from further upstream into sewer.)

More dead fish were found further downstream in Deer Creek than yesterday, at a location above the second dam between Red Arrow Highway and Tower Hill Road. Recent field pH sampling activities this morning indicate the following:

Multiple manholes along storm sewer: 7.7-7.8
Above first dam at storm sewer outfall: 7.0-8.5
Between Red Arrow Highway and second dam: 10.13
Tower Hill Road: 11.56, approximately 15 dead fish
Terry Lane 10.3
Pine Lane 9.8
Ridge Bridge: 8.0

Confluence of Deer Creek at Lake Michigan: 7.0-8.0
Lake Michigan shoreline in area of confluence: 7.8-8.2

Current plans include continued vaccing above the second dam, flushing by pumping water from above the first dam and collecting flushed water downstream to lower pH, spot treatments by spraying white vinegar in dowstream portions containing elevated pH, possible placement of third dam near Ridge Bridge, and continue pH monitoring and split sampling by CH and EPA. Per request of management of WRD and RD, samples are being collected at the confluence ofDeer Creek with Lake Michigan about every 6 hours for later analysis by the state lab for VOCs and metals.

RD's Mark Worrall (616-881-1375) is on site this afternoon and tonight and WRD's Steve Norton (269-370-4675) is on site this afternoon to be replaced with other WRD at some point tonight.

Frank Ballo (269-806-6137)

From: VanOtteren, Bruce (DNRE)
Sent: Saturday, July 23, 2011 6:42 AM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.; el-zein.jason@epa.gov
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Below is the initial POLREP from EPA on this incident:

From: holz.theresa@EPA.GOV [holz.theresa@EPA.GOV]
Sent: Saturday, July 23, 2011 6:10 AM
To: EMMANOUIL.STAVROS@EPA.GOV; holz.theresa@EPA.GOV; lgraczyk@dynamac.com; mike.mejac@westonsolutions.com; jamese@spicergroup.com; Jordan, Kameron (DNRE); rbush@berriencounty.org; rzilke@Berriencounty.org; Reber, Barry; Whitmyer, Nathan (DNRE); geer.charles@cleanharbors.com; weaver.charles@cleanharbors.com; nachowicz.linda@epa.gov; gebien.charles@epa.gov; el-zein.jason@epa.gov; ropski.carol@epa.gov; maritote.john@epa.gov; VanOtteren, Bruce (DNRE); Ballo, Frank (DNRE); lall.partap@epa.gov
Subject: Pollution Report # (Initial)1 Tanker Truck (MEK) Explosion - Initial Pollution Report - Tank Truck Explosion

Attached [pasted below] is a Pollution Report (POLREP) regarding:

USEPA Region V
Tanker Truck (MEK) Explosion
6100 Sawyer Road, Sawyer, MI

To view this POLREP, please open the attachment.
Lotus Notes Users, please Launch the attachment.

For additional information regarding this site,
please visit the website by clicking on this link:
http://www.epaosc.org/TankerTruckMEKExplosion

- - -

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Tanker Truck (MEK) Explosion - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #1
Initial Pollution Report - Tank Truck Explosion
Tanker Truck (MEK) Explosion

Sawyer, MI
Latitude: 41.8877170 Longitude: -86.6036120

To:
From: Theresa Holz, On Scene Coordinator
Date: 7/23/2011
Reporting Period: 7/22/2011 - 7/23/2011

1. Introduction
1.1 Background

Site Number: Contract Number:
D.O. Number: Action Memo Date:
Response Authority: CERCLA Response Type: Emergency
Response Lead: PRP Incident Category:
NPL Status: Non NPL Operable Unit:
Mobilization Date: 7/22/2011 Start Date: 7/22/2011
Demob Date: Completion Date:
CERCLIS ID: RCRIS ID:
ERNS No.: State Notification:
FPN#: Reimbursable Account #:

1.1.1 Incident Category
Emergency Response

1.1.2 Site Description Thus 7 34

On 7/21/11 at 1934 hrs, an explosion occurred in a tanker truck transporting 4600 gallons of a mix of approximately 86% water, 13% Sodium Hydroxide, and 1% Methyl Ethyl Ketone (MEK) in Sawyer, Berrien County, Michigan, and into the Sawyer drain sewer which discharges to Deer Creek which is a tributary to Lake Michigan. The explosion occurred at a truck stop (Travel America) at Exit 12 off of I-94 in Benton Harbor, Michigan. The responsible parties, Marcus Trucking and Clean Harbors, are conduting cleanup operations under the

oversight of the Chikaming Fire Department, local (Berrien County) and state government (MDEQ) officials, and USEPA.

At 1400, MDEQ requested USEPA support for water sampling and overall response support. OSC Holz arrived on scene at 1730 on 7/22/11 and was accompanied by two START members.

Prior to USEPA getting on site, PRPs conducted the following cleanup activities:
- Recovering source area liquids via vacuum truck
- Decontamination of ruptured tanker truck and loaded ruptured pieces onto flat bed
- Recovering impacted liquids from the creek via vacuum truck

Current Activities

The impacted Deer Creek is approximatley 1.25 miles long. Contractors have created two earthen berms in between the release point and Lake Michigan. The first berm is located at the discharge of the sewer into Deer Creek just north of Sawyer Road. The second berm is located on the east side of Tower Hill Road and just north of Gandy Lane. START is monitoring the pH in between the berms hourly and has recorded readings between approximately 10 and 11. MDEQ is monitoring the pH at the confluence of Deer Creek and Lake Michigan, readings at this location have been approximately 7 pH units. No odors or vapors are evident. Exit 12 on Eastbound I-94 and a portion of Sawyer Road is currently closed.

During the reporting period, cleanup contractors performed the following activites:

- Completed ruptured tanker truck decontamination
- Power washed parking lot where explosion occurred
-Vacuumed impacted areas of the creek with high pH (near earthern berms)

During pH testing between berms and at the area near the confluence of Deer Creek and Lake Michigan, MDEQ and USEPA contractor collected samples to be analyzed by the HAZMAT ID. HAZMAT ID reported the samples as containing Water.

With MDEQ assisstance, the USEPA contractor collected split samples with Clean Harbors in three areas on Deer Creek - just east of the first berm, just east of the second berm, and at the confluence of Lake Michigan and the creek. A water sample and a sediment sample were collected at each of the three areas sampled. The USEPA samples are to be analyzed for VOCs, pH, and metals. Clean Harbors is to analyze their samples for pH and VOCs.

Warren Dunes State Park is located approximately 1.1 miles north of where Deer Creek empties into Lake Michigan. The Conservation Officer closed the beach at Warren Dunes State Park early afternoon on 7/22/2011. The beach will reopen the morning of 7/23/2011, due to neutral pH readings at the confluence of Lake Michigan and Deer Creek and the apparent lack of further migration of the spilled material. MDEQ and USEPA continue to monitor pH readings at the Tower Road berm and the confluence of Deer Creek and Lake Michigan.

Deer Creek remains closed for the weekend.

Next steps

-Prepare berms for inclement weather
-Continue vac operations along creek
-Begin flushing sewers which lead to creek

1.1.2.1 Location

Spill ocurred at 6100 Sawyer Road in Benton Harbor, Michigan.

1.1.2.2 Description of Threat

Caustic liquid spilled at truck stop and into strom sewer which emptied into Deer Creek.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities
    2.1 Operations Section

    2.2 Planning Section
    2.3 Logistics Section
    2.4 Finance Section
    2.5 Safety Officer
    2.6 Liaison Officer
    2.7 Information Officer

3. Participating Entities
    3.1 Unified Command
    3.2 Cooperating and Assisting Agencies
4. Personnel On Site
5. Definition of Terms
6. Additional sources of information
    6.1 Internet location of additional information/reports
    6.2 Reporting Schedule
7. Situational Reference Materials

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 6:52 PM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE);

Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Chief Hagler asked me to summarize this afternoon's conference call and provide a note to the DEQ Major Emergency distribution list and others who became involved:

The manifest from Clean Harbors, owner of the released material, indicating the material was concentrated sodium hydroxide, with trace organics (<500ppm), is consistent with many observations on scene: the fact that the tanker didn't explode and burn when it blevied due to pressurization, the fact that it corroded aluminum fittings in the tanker which the carrier had utilized because they were under the impression that the load was MEK (thus the tanker labeling code), the fact that no odor was observed along the creek when about 1,150 gallons had been released to it, and the fact that the material's high pH did not dilute to normal pHs in the creek as readily as it would have had if the load was MEK with trace caustics. So having some confidence in knowing what was released, and being able to monitor that relatively easily with pH monitoring instruments, it was decided to continue to monitor the creek outlet and Lake Michigan until the concentrations returned to normal, and to have the drain commissioner and his engineer evaluate the integrity of the dikes installed to hold back a part of the solution released to the sewer system. Once the dike integrity was deemed sufficient and the pHs were normal then the surrounding beachs could be reopened, and it was roughly projected that this would happen by 7pm. The river would remain closed to access or water withdrawal pending further investigation, hopefully only a day or two. Results from our samples will be forwarded upon receipt. We are also looking into some confusing aspects of the manifest suggesting other constituents were present, which Jack Schinderle probably read to have been minor constiuents or only possible contaminants of the bulk material.

Below is a note from Chief Hagler to the DNR to this effect, and below ~~that~~ is a note from DCH supporting our approach.

If anyone has any additions or corrections please reply all to this note so everyone is copied.

Copy of manifest manifest #

Thanks,

Bruce VanOtteren
517-388-5428 (cell)

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 5:58 PM
To: Mason, Russ (DNRE); Olson, Ron (DNRE); Boyd, Lynne (DNRE); Molnar, Dean (DNRE); Hopkins, Daniel (DNRE); VanOtteren, Bruce (DNRE); Wolf, Jennifer (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Dettloff, Mary (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Dexter, James (DNRE); Hoffman, Mark (DNRE); Vansumeren, Dave (DNRE); Doss, Zachary (DNRE)
Subject: Berrien Co. Spill and Warren Dunes Beach closing

It looks as though containment and dilution within the water will allow the beach to reopen at Warren Dunes State Park later this evening. Once contract engineers confirm that adequate containment dikes are in place to stop the migration of the substance and as long as ph levels remain within allowable limits along the stream mouths entry into Lake Michigan the order to reopen

the beach will occur. Det. Bill Ford will be contacting Parks Division personnel to let them know that it is OK to open the beach area we expect that this may happen as early as 7pm. Brad Wurfel DEQ is handling media release information and Mark Hoffman is coordinating additional DNR media efforts. EPA is now on site to assist.

Thanks
GH

Gary Hagler
Law Enforcement Division Chief
Michigan Dept. of Natural Resources
(517) 335-7296

- -

From: Groetsch, Kory J. [GroetschK@michigan.gov]
Sent: Friday, July 22, 2011 5:49 PM
To: VanOtteren, Bruce (DNRE)
Cc: Dykema, Linda D.; Wade, David R.
Subject: Re: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Hi Bruce,

Thank you for phone call. To follow-up on our conversation, as you stated on the phone the reports below are not accurate with regards to the spill being concentrated MEK. Per our conversation, DEQ is reporting that the spill
is caustic material (NaOH), no significant organic chemical concerns exist (MEK at less than 500 ppm). The creek is continuing to be monitored for pH and upstream barrier has been put in place to prevent remaining residue from reaching Lake Michigan. The outfall of the stream into the lake is below a pH
of 9 as well as the creek proper.

The beach in question is along Lake Michigan. As a precaution, local health had people leave the water today, but given the spill has been contained and pH levels have fallen below 9, the officials on-scene plan to allow swimmer back in the water this evening (7 or 8 pm). Local health department is involved in this effort.

Based on the information provided, my opinion is that MDCH- DEH support these actions as being appropriate.

Thank you,

Kory Groetsch, Toxicologist
MDCH-Division of Environmental Health
Capitol View Bldg, 4th Floor, Office 4-054
201 Townsend St.
Lansing, MI 48913

(517) 335-9935
www.michigan.gov/mdch-toxics

From: VanOtteren, Bruce (DNRE)

Sent: Friday, July 22, 2011 3:58 PM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Merrick, JoAnn (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Smith, Kelley (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Sellers, Fred (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holtz.theresa@epa.gov'; 'holz.theresa@epa.gov'
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

I talked with Randy Badiuk, with the carrier company Harold Marcus, LLT, who told me it's unknown to him why the load was so caustic. He thought it should have been just methyl ethyl ketone (MEK), as per the ID#1993. Also MEK is incompatible with sodium hydroxide (NaOH) so it makes no sense to me or Randy that MEK would be stabilized by NaOH. The load was caustic enough to blevy in the appx. 7 hours from the time it was loaded. This is all from the carrier, so we need to talk to the owner of the MEK, Clean Harbor. The load was going from one Clean Harbor facility to another.

I have requested Theresa Holz's cell phone number, and we'll get an ETA.

-----Original Message-----
From: STAVROS EMMANOUIL [mailto:Emmanouil.Stavros@epamail.epa.gov]
Sent: Friday, July 22, 2011 3:05 PM
To: VanOtteren, Bruce (DNRE)
Cc: Theresa Holz; PARTAP LALL; Jeffrey Lippert
Subject: Re: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Ok.

Theresa Holz from the Chicago office will be responding

- -

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 2:07 PM
To: Emmanouil, Stavros (emmanouil.stavros@epa.gov)

Cc: Marolf, Lynelle (DNRE); Hagler, Gary (DNRE); Ballo, Frank (DNRE)
Subject: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

My management has decided to ask for EPA assistance primarily due to the uncontrolled release to the water but to help in all respects - please mobilize as soon as possible. Give me a call if needed 517-388-5428.

Here is a new NRC report fulfilling the RP's notifications requirements apparently - no new info I can see.

NATIONAL RESPONSE CENTER 1-800-424-8802
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***
Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 983559

INCIDENT DESCRIPTION

*Report taken by: MST1 JERRY HARDY at 14:39 on 22-JUL-11
Incident Type: MOBILE
Incident Cause: EXPLOSION
Affected Area:
Incident occurred on 21-JUL-11 at 21:10 local incident time.
Affected Medium: LAND CONCRETE

REPORTING PARTY

Name: RANDY BADIUK
Organization: HAROLD MARCUS LTD.
Address: 15124 LONGWOOD ROAD
BOTHWELL, CN

PRIMARY Phone: (519)3805292
Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: RANDY BADIUK
Organization: HAROLD MARCUS LTD.
Address: 15124 LONGWOOD ROAD
BOTHWELL, CN
PRIMARY Phone: (519)3805292

INCIDENT LOCATION

County: BERRIEN
City: SAWIER State: MI
HWY I-94 AT EXIT 12

RELEASED MATERIAL(S)

CHRIS Code: MEK Official Material Name: METHYL ETHYL KETONE
Also Known As:
Qty Released: 0 UNKNOWN AMOUNT
CHRIS Code: NCC Official Material Name: NO CHRIS CODE
Also Known As: WASTE, FLAMMABLE LIQUID NOS(UN 1993)
Qty Released: 4600 GALLON(S)

DESCRIPTION OF INCIDENT

CALLER REPORTED TANKER LOADED WITH WASTE MATERIAL, ENROUTE TO ONTARIO, CANADA THE MATERIAL REACTED TO THE ALUMINUM TANK AND EXPLODED.

SENSITIVE INFORMATION

INCIDENT DETAILS

Road Mile Marker: 12
Length of Service Disruption:
Airbag Deployed: UNKNOWN
---MOBILE INFORMATION---
Vehicle Type: TANKER TRUCK
Vehicle Number: UNKNOWN
Trailer/Tanker Number:
Vehicle Fuel Capacity:
Cargo Capacity:
Cargo On Board:
Hazmat Carrier: YES
Carrier Licensed: YES
Suspected Non Compliance: UNKNOWN

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES:	NO	Hospitalized:	Empl/Crew:	Passenger:
FATALITIES:	NO	Empl/Crew:	Passenger:	Occupant:
EVACUATIONS:	NO	Who Evacuated:	Radius/Area:	

Damages: NO

Closure Type	Description of Closure	Hours Closed	Direction of Closure
Air:	N		
Road:	N		Major Artery:N
Waterway:	N		
Track:	N		

Environmental Impact: UNKNOWN
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

CREWS CLEANING UP MATERIAL TRAPPED IN BOOM, SCRAPING AND DISPOSING OF SAND USED AS BERMS.
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

Weather: CLEAR, ºF

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE
State/Local: MI DEQ, MI DNR, MI DOT, LOCAL FD AND PD

State/Local On Scene: MI DEQ, MI DNR, MI DOT, LOCAL FD AND PD
State Agency Number: NONE

NOTIFICATIONS BY NRC

ATLANTIC STRIKE TEAM (MAIN OFFICE)
22-JUL-11 15:02 (609)7240008
USCG ICC (ICC ONI)
22-JUL-11 15:02 (301)6693363
CG INVESTIGATIVE SERVICE DETROIT (RESIDENT AGENT OFFICE, DETROIT)
22-JUL-11 15:02 (586)2396759
DHS CUSTOMS AND BORDER PATROL (MICHIGAN FIELD OFFICE)
22-JUL-11 15:02 (586)2392219
DHS PROTECTIVE SECURITY ADVISOR (PSA DESK)
22-JUL-11 15:02 (703)2355724
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
22-JUL-11 15:02 (202)3661863
U.S. EPA V (MAIN OFFICE)
(312)3532318
FBI STRATEGIC INFO OPERATIONS CNTR (MAIN OFFICE)
(202)3233300
FLD INTEL SPT TEAM SAULT STE TEAM (SECTOR INTEL STAFF)
22-JUL-11 15:02 (906)2532417
MICHIGAN DEPT OF COMMUNITY HEALTH (HSEES)
22-JUL-11 15:02 (517)3358364
MI INTELLIGENCE OPERATIONS CENTER (FUSION CENTER)
22-JUL-11 15:02 (517)2418000
MI INTELLIGENCE OPERATIONS CENTER (CIP DESK)
22-JUL-11 15:02 (517)3350262
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
22-JUL-11 15:02 (202)2829201
NOAA RPTS FOR MI (MAIN OFFICE)
22-JUL-11 15:02 (206)5264911
NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)
(202)2671136
NTSB PIPELINE (MAIN OFFICE)
22-JUL-11 15:02 (202)3146293
OH U.S. ATTORNEY'S OFFICE NORTH (MAIN OFFICE)
22-JUL-11 15:02 (216)6223730
HOMELAND SEC COORDINATION CENTER (MAIN OFFICE)
22-JUL-11 15:02 (202)2828300
PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))
22-JUL-11 15:02 (202)3660568
SECTOR LAKE MICHIGAN (COMMAND CENTER)
(414)7477182
SECTOR LAKE MICHIGAN (MSD GRAND HAVEN)
22-JUL-11 15:02 (616)8502580
ST JOSEPHS COUNTY HEALTH DEPT (SPILL RESPONSE)
22-JUL-11 15:02 (574)2456760
IN DEPT ENV MNGMT (MAIN OFFICE)
22-JUL-11 15:02 (317)2337745
MICHIGAN DEQ (MAIN OFFICE)
22-JUL-11 15:02 (800)2924706
MICHIGAN DEQ (MAIN OFFICE 2)
22-JUL-11 15:02 (517)2411252
USCG DISTRICT 9 (COMMAND CENTER)
22-JUL-11 15:02 (216)9026109

ADDITIONAL INFORMATION

CALLER HAD NO ADDITIONAL INFORMATION.

*** END INCIDENT REPORT #983559 ***

Report any problems by calling 1-800-424-8802
PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil<
http://www.nrc.uscg.mil/>

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 1:24 PM
To: DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; VanOtteren, Bruce (DNRE); Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Merrick, JoAnn (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Smith, Kelley (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Sellers, Fred (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov)
Subject: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Chief Hagler, EMC asked me to forward the latest information on the methyl ethyl ketone / sodium hydroxide blevy which occurred yesterday evening and is ongoing. If you have updates on this incident for the group please reply all.

From: Ballo, Frank (DNRE)
Sent: Friday, July 22, 2011 1:14 PM
To: VanOtteren, Bruce (DNRE); Hagler, Gary (DNRE)
Cc: Emmanouil, Stavros (emmanouil.stavros@epa.gov); Marolf, Lynelle (DNRE)
Subject: RE: New Information Berrien Co. Spill Possible Impact on Warren Dunes State Park Beach area

I talked with Ben Zimont (on site) and Kam Jordan (in Kalamazoo) regarding requesting USEPA's assistance. Although it's currently raining there and activities are at a temporary standstill, at this time, the companies appear to have the necessary equipment on-site to complete the surficial cleanup, begin and complete cleanup of the storm sewers and catchment basins, and contain and collect all the water at the storm sewer outfall. Although the pH was previously measured in the stream between 10 and 12, we're awaiting new, more extensive results to evaluate current conditions.

At this time, Kam and I feel the situation is as controllable as possible, and there's no need for USEPA to respond. Thanks again, Stavros, for being so willing to assist us. I have to say, if conditions change or significantly different information becomes available, we may need to reconsider.

Thanks again...

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 12:34 PM
To: Hagler, Gary (DNRE)
Cc: Ballo, Frank (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov)
Subject: RE: New Information Berrien Co. Spill Possible Impact on Warren Dunes State Park Beach area

Hi Gary,
Frank Ballo is going to be talking with Ben Zimont very soon, if not right now, and will get back to us with a field report, and an opinion on whether to request EPA assistance. As said, I have already given EPA (Stavros Emmanouil - duty officer in Chicago this week) an FYI about the situation, and they are standing by in case we need to request their assistance.
Bruce

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 12:06 PM
To: Stokes, Rodney (DNRE); Dettloff, Mary (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Dexter, James (DNRE); Sygo, Jim (DNRE); Wyant, Dan; Wichman, Mary
Cc: Mason, Russ (DNRE); Olson, Ron (DNRE); Boyd, Lynne (DNRE); Molnar, Dean (DNRE); Hopkins, Daniel (DNRE); VanOtteren, Bruce (DNRE); Wolf, Jennifer (DNRE); Wurfel, Brad (DNRE); SEOC, Operations Chief; Creal, William (DNRE); Shekter Smith, Liane (DNRE); Marolf, Lynelle (DNRE)
Subject: New Information Berrien Co. Spill Possible Impact on Warren Dunes State Park Beach area
Importance: High

Based on information that I have just received from Det. Ford indicating that the impacted creek flows into Lake Michigan about a ¼ mile from Warren Dunes State Park Beach, I have directed that the Beach area be immediately closed until sampling can be done to ensure a safe environment for those that would using the beach. CO Andy Bauer is on site and transporting the Drain Commissioner to sampling sites to address the potential impacts on the beach are and Lake. I contacted Parks Chief Ron Olson directly and notified him of this decision. He along with Det. Ford will ensure that the Park Manager is notified to close the beach area.

Gary Hagler
Law Enforcement Division Chief
Michigan Dept. of Natural Resources
(517) 335-7296

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 11:41 AM
To: Stokes, Rodney (DNRE); Dettloff, Mary (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Dexter, James (DNRE); Sygo, Jim (DNRE); Wyant, Dan; Wichman, Mary
Cc: Mason, Russ (DNRE); Olson, Ron (DNRE); Boyd, Lynne (DNRE); Molnar, Dean (DNRE); Hopkins, Daniel (DNRE); VanOtteren, Bruce (DNRE); Wolf, Jennifer (DNRE); Wurfel, Brad (DNRE); SEOC, Operations Chief; Creal, William (DNRE); Shekter Smith, Liane (DNRE); Marolf, Lynelle (DNRE)
Subject: FW: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

FYI all,

This is a work in progress I have been in contact with MSP EMHSD as well. Sampling by the Co. Drain Commissioner is underway the main concern is the Ph content which was 12 where the fish kill occurred at about 1.25 miles from Lake Michigan. This is a creek that directly flows to Lake Michigan they are

looking at getting a sample closer to the lake to assess potential impacts, from what I have been told there are no real recreational opportunities until you get to Lake Michigan that would be impacted by this incident. The County is engaged in the Emergency Management of this situation. Detective Bill Ford (from DNR/DEQ) is on site and assessing the situation as well Ben Zimont DEQ has been working on this since last evening. I am told that the local Fish Biologist and Fisheries Supervisor J. Wesley are aware of this situation and it is not considered a sport fishery in which Fish Division would engage. I will pass on additional information as I get additional briefings.

Gary Hagler
Law Enforcement Division Chief
Michigan Dept. of Natural Resources
(517) 335-7296

From: Hopkins, Daniel (DNRE)
Sent: Friday, July 22, 2011 11:17 AM
To: Hagler, Gary (DNRE); Molnar, Dean (DNRE)
Cc: Bauer, Andrew (DNRE); Doss, Zachary (DNRE); Vansumeren, Dave (DNRE)
Subject: RE: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Chief, Berrien Co. officer Andy Bauer is in service and will respond to the scene. Andy will contact and coordinate his activities with Bill Ford. His primary objective at this time, with the guidance of Bill Ford on safe access, will be to assess the existence and status of any fish kills that may have occurred. In addition he will monitor and assess any public safety or resource related concerns that arise.

Dan.....

Captain Daniel W. Hopkins
Field Operations Coordinator, Law Enforcement Division
Gaylord Operations Service Center
1732 West M-32
Gaylord, Michigan 49735
989-732-3541 Ext. 5045

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 10:37 AM
To: Hagler, Gary (DNRE); Ballo, Frank (DNRE)
Cc: Sygo, Jim (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); Franks, Robert (DNRE); DEQ-PEAS
Subject: FW: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Hi Gary,

Frank Ballo says he just got off the phone with you, and he has the best information probably, and he'll be sending out another update soon, which I'll get out to the complete Major Emergency Contact List. Water Resources Division and Fisheries Division have been notified, and I called EPA just to give them a heads up, but they are not responding unless we request them. Frank - let me know if you think you need resources more quickly and I can ask a division chief or Jim to approve officially calling for EPA's assistance.

Bruce VanOtteren
Pollution Emergency Alerting System (PEAS) Administrator
Michigan Department of Environmental Quality &

Michigan Department of Natural Resources
Shared Emergency Management Services
Tel.: (517) 373-8427, FAX: 517-241-8549

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 10:32 AM
To: Molnar, Dean (DNRE); Hopkins, Daniel (DNRE)
Subject: Fw: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Fyi,
We have no COs on in Berrien Co I believe there has been a fish kill. Do not know the extent. The closest COs on are G. Patten Muskegon Co , and Dave Rogers, Kent Co. I have Bill Ford in Route to assess the situation for a potential investigation. Do not yet know if Lake Michigan will be impacted.

Gh
Sent from Gary Hagler's Blackberry

From: Ballo, Frank (DNRE)
Sent: Friday, July 22, 2011 7:46 AM
To: Franks, Robert (DNRE); Sygo, Jim (DNRE); Schrantz, Phil (DNRE); Marolf, Lynelle (DNRE); Wurfel, Brad (DNRE); Gross, Randy (DNRE); Hagler, Gary (DNRE); VanOtteren, Bruce (DNRE); OperationsLts, Lieutenants; Hobrat, Ralph; Porcello, James; Kanicki Wilson, Bonnie; Merrick, JoAnn (DNRE)
Cc: Zimont, Ben (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Sellers, Fred (DNRE); Heywood, David (DNRE); Lane, Rex (DNRE); Ford, William (DNRE); Drus, Tracy (DNRE)
Subject: RE: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Please be advised that Ben Zimont was on the scene last night working with Berrien County Sheriff's Department and HAZMAT. I talked with Ben around 11:00 pm and 6:00 am, and he reported that the incident involved a 4600 gallon tanker filled with methyl ethyl ketone stabilized with sodium hydroxide, making it a highly caustic compound. The material was mistakenly placed in either an aluminum tanker or a tanker with aluminum fittings causing the reaction. The trucking company involved is Harold Markus Trucking of Sarnia, and the load owner is Clean Harbors out of Chicago. The driver, coming from Chicago, apparently became aware of a problem with the load in Indiana, noticed there was a small leak, continued on into Michigan, and stopped again at the Sawyer Truck Stop in SW Berrien County. Upon inspection, he notice there was a greater leak, told other trucks and people in the area to get away, and attempted to contain the spilled material. Berrien County HAZMAT arrived, which immediately mobilized resources to berm the area, shortly thereafter the tanker blevied, but there was no fire. Pieces of the truck have been reported up to 500 feet away from the incident. No one was seriously injured, although one person was splashed in the face and two others report headaches, possibly from the explosion. Some of the material got into a storm sewer which flowed approximately 1000 feet to the headwaters of a small stream, the sewer grates have since been closed off and dirt has been piled near the exit of the sewer to minimize additional discharge into the surface waters.

Currently, Ben reports that attempts by the firms to get adequate personal protection equipment and vacuum/tank trucks to begin cleanup at the site have not gone expeditiously. He's been interfacing with the companies to speed cleanup, as there continues to be vapor risks, the caustic material has been sitting on the roadway potentially releasing into the ground, and a significant thunderstorm is imminent. I will be working with district WRD and AQD staff to assure other resource issues are being adequately addressed.

Please contact me if you have questions or need additional information.

Frank Ballo, Acting District Supervisor
Kalamazoo District
Remediation Division
Department of Environmental Quality
7953 Adobe Road
Kalamazoo, MI 49009

Phone 269-567-3531
Fax 269-567-9440
Email ballof@michigan.gov

From: Franks, Robert (DNRE)
Sent: Thursday, July 21, 2011 11:44 PM
To: Franks, Robert (DNRE); Sygo, Jim (DNRE); Ballo, Frank (DNRE); Schrantz, Phil (DNRE); Marolf, Lynelle (DNRE); Wurfel, Brad (DNRE); Sellers, Fred (DNRE); Hagler, Gary (DNRE); VanOtteren, Bruce (DNRE); OperationsLts, Lieutenants; Hobrat, Ralph; Porcello, James; Kanicki Wilson, Bonnie
Cc: Zimont, Ben (DNRE); Jordan, Kameron (DNRE)
Subject: RE: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Please be aware that the tanker truck was not a FUEL tanker. It was a tanker hauling some type of flammable liquid, initially thought to be methy ethyl ketone, but that is not confirmed at this time. Efforts are currently being made to contact the trucking company to determine the exact product that was being hauled.

From: Franks, Robert (DNRE)
Sent: Thursday, July 21, 2011 11:19 PM
To: Sygo, Jim (DNRE); Ballo, Frank (DNRE); Schrantz, Phil (DNRE); Marolf, Lynelle (DNRE); Wurfel, Brad (DNRE); Sellers, Fred (DNRE); Hagler, Gary (DNRE); VanOtteren, Bruce (DNRE)
Cc: Zimont, Ben (DNRE); Jordan, Kameron (DNRE)
Subject: Major PEAS Incident - Berrien County

Please see the PEAS incident report below regarding a fuel tanker truck explosion (no fire) in Berrien County. Ben Zimont-RD-Kalamazoo District Staff has been notified and is conducting followup, including traveling to the scene to represent the DEQ. It has been confirmed that some of the product migrated to the storm sewer, which discharges to a small creek that is a tributary to Lake Michigan. The spill site is at a truck stop, and is approximately four to five miles from Lake Michigan. Kameron Jordan, WD, Kalamazoo District Supervisor has been notified and made aware of the situation.

I spoke with the county emergency management coordinator, Captain Cory Burks (269-876-0126), and he told me that there was no fire involved. A tanker truck carrying an unknown flammable liquid likely overpressurized and exploded, releasing the entire 4,600 gallons of product to the parking lot of the truck stop. Initial response has been to bring in several truckloads of dirt/sand and dike off the spill. This effort has been successful in preventing additional migration of product. Cleanup is expected to be complete yet tonight. No evacuations were conducted, but a shelter in place warning was issued to the immediate vicinity.

- - -

IN: 2011-07-21 09:55 pm SBP
Current Date: 2011-07-21 Time: 21:55:03 Day: Agent: SBP

Status: AFTER HOURS
District Office: KALAMAZOO
PEAS Incident#: 3228
Complaintant Name: JOSH SHEPARDSON
Complainant Co Name: BERRIEN 911 AGENT: FOR GENERAL INFO
ALT-W!
Complainant Address: 2100 EAST EMPIRE
Complainant Zip Code: 49022 City: BENTON HARBOR State: MI
Complainant Phone: (269)983-3060 Alternate Phone# N/A

Party/Company Involved?
(UNSURE)
Party Involved Address: (UNSURE)
Party Involved City: (UNSURE) State: N/A Zip N/A

Incident address: 6100 SAWYER ROAD/TRAVEL AMERICA TRUCK STOP
Incident City : SAWYER
Incident Township: CHIKAMING
Incident County: BERRIEN District KALAMAZOO
Cross Streets to incident: MILE MARKER 12 ON I-94
(or mile marker if on highways)
Description of Incident: FUEL LEAK IN A TANKER TRUCK, HAZMAT TEAM
DISPATCHED,
(agent include, injuries, TRUCK EXPLODED AND NOW THERE IS A LARGER LEAK.
fatalities, evacuations, SAWYER ROAD IS CLOSED. REQUESTING AN ESTIMATED
TIME
If Road has been closed, OF ARRIVAL OF A REPRESENTATIVE SO THAT HE CAN
NOTIFY
fire, etc) HIS SUPERVISOR.

Date Discovered: 07/21/11 Time Discovered: 7:34PM
Date Occurred: 07/21/11 Time Occured: 7:34PM
Is Incident still happening NOW? YES
Name of Pollutant: FUEL
Release to (select one) AIR AND SOIL
Amount Released to Air: (UNSURE)
Amount Released to Ground: 4600 GALLONS
Amount Released to Water:
Name of Body of Water, Drain/Ditch Involved: NA
Has cleanup contractor be contacted yet? NO
Name of Contractor & ETA:
Has insurance company contacted yet? NO
Insurance Company Name/Tel#:
Any efforts to clean up/contain release, if so what ?
YES BOOMS AND ABSORBANT

How much was recovered? (UNSURE)
Estimated time or date cleanup will be completed?
3 OR 4 HOURS
Are Emergency Crews on Scene? (e.g. police,fire, etc) Get Details POLICE,
FIRE, AMBULANCE, COUNTY ROAD, HAZMAT TEAM, STATE HIGHWAY

Weather or Wind Condition at time of incident:
WIND NE 0 MPH 13 MPH GUST WINDS
What other agencies were notified by you?(911,health dept, EPA Etc)

Initial report:

IN (*FILED*): 2011-07-21 08:20PM TEP
OUT (*FILED*): 2011-07-21 08:34PM *ER AutoFile Current Date: 2011-07-21

Time: 20:20:22 Day: THURSDAY Agent: TEP
Status: AFTER HOURS IsTime: FALSE IsDay: TRUE
District Office: UNSURE
PEAS Incident#: 3227
Complaintant Name: RANDY BADIUK
Complainant Co Name: HAROLD MARCUS LLT AGENT: FOR GENERAL INFO
ALT-W!
Complainant Address: 15124 LONGWOODS ROAD
Complainant Zip Code: 00000 City: State:
Complainant Phone: (519)380-5292 Alternate Phone# 800-265-9426

Party/Company Involved?
HAROLD MARCUS LLT
Party Involved Address: 15124 LONGWOODS ROAD
Party Involved City: SAWYER State: MI Zip 00000

Incident address: EXIT 12 AT 194
Incident City : SAWYER
Incident Township: N/A
Incident County: UNSURE District UNSURE
Cross Streets to incident: HWY 194 AT EXIT 12
(or mile marker if on highways)
Description of Incident: AT TA TRUCK STOP, ADVISING THAT 1 LITER FLAMABLE
(agent include, injuries, LIQUID HAS BEEN SPILLED
fatalities, evacuations,
If Road has been closed,
fire, etc)

Date Discovered: 07/20/2011 Time Discovered: 8:20 PM
Date Occurred: 07/21/2011 Time Occured: 8:20 PM
Is Incident still happening NOW? YES
Name of Pollutant: FLAMABLE LIQUID
Release to (select one) PAVEMENT
Amount Released to Air:
Amount Released to Ground:
Amount Released to Water:
Name of Body of Water, Drain/Ditch Involved:
Has cleanup contractor be contacted yet? YES
Name of Contractor & ETA: CLEAN HARBORS
Has insurance company contacted yet? NO
Insurance Company Name/Tel#:
Any efforts to clean up/contain release, if so what ?
CONTAINED WILL BE CROSS LOADED TO ANOTHER TRUCK

How much was recovered? 1 LITER
Estimated time or date cleanup will be completed?
12 AM 07/22/2011
Are Emergency Crews on Scene? (e.g. police,fire, etc) Get Details
FIRE AND POLICE ARE ON SCENE

Weather or Wind Condition at time of incident:
UNSURE
What other agencies were notified by you?(911,health dept, EPA Etc)
FIRE AND POLICE, MICHIGAN DEPT OF TRANSPORTATION

Bruce VanOtteren
Pollution Emergency Alerting System (PEAS) Administrator
Michigan Department of Environmental Quality &
Michigan Department of Natural Resources
Shared Emergency Management Services

Tel.: (517) 373-8427, FAX: 517-241-8549

PEAS Hotline: 800-292-4706
www.michigan.gov/deqrelease<http://www.michigan.gov/deqrelease>
DEQ Env. Assist. Center Hotline: 800-662-9278
DNR Report All Poaching Hotline: 800-292-7800

[cid:image001.jpg@01CC4888.1B588540] [
cid:image002.gif@01CC4888.1B588540]

----- Message from "VanOtteren, Bruce (DNRE)" <VANOTTERENB@michigan.gov> on Mon, 25 Jul 2011 08:33:45 -0400 -----

To: DEQ-PEAS <DEQ-PEAS@michigan.gov>, "Dettloff, Mary (DNRE)" <DETTLOFFM1@michigan.gov>, "Fobbs, Terry (DELEG)" <FobbsT@michigan.gov>, "Gross, Randy (DNRE)" <GrossR2@michigan.gov>, "Hagler, Gary (DNRE)" <HAGLERG@michigan.gov>, "Hobrat, Ralph" <HobratR@michigan.gov>, "Jones, Lynda (DNR)" <JONESL10@michigan.gov>, "Kanicki Wilson, Bonnie" <KanickiB@michigan.gov>, "Krzanowski, Karen" <KrzanowskiK@michigan.gov>, "Merrick, JoAnn (DNRE)" <MerrickJ@michigan.gov>, "Molnar, Dean (DNRE)" <MolnarD@michigan.gov>, "OperationsLts, Lieutenants" <OperationsLts@michigan.gov>, "Phifer, Eileen" <PhiferE@michigan.gov>, "Porcello, James" <PorcellJ@michigan.gov>, "Quiggle, Lisa" <QuiggleL@michigan.gov>, "Sadler, Taunia (DNRE)" <SadlerT@michigan.gov>, "Shaler, Karen (DNRE)" <SHALERK@michigan.gov>, "Smith, Kelley (DNRE)" <SMITHK@michigan.gov>, "Stokes, Rodney (DNRE)" <STOKESR@michigan.gov>, "Sygo, Jim (DNRE)" <SygoJ@michigan.gov>, "Thelen, Mary Beth (DNRE)" <THELENM2@michigan.gov>, "Tkaczyk, Judy (DNR)" <TKACZYKJ@michigan.gov>, "Vallier, Connie" <VallierCo@michigan.gov>, "Wingate, Thomas (DNRE)" <WINGATET@michigan.gov>, "Wolf, Jennifer (DNRE)" <WOLFJ1@michigan.gov>, "Woods, Vence (DNRE)" <WOODSV1@michigan.gov>, "Wurfel, Brad (DNRE)" <WurfelB@michigan.gov>, "Wyant, Dan" <WyantD@michigan.gov>, "Adelman, Mitch (DEQ)" <ADELMANM@michigan.gov>, "Casey, Steve (DNRE)" <CASEYS@michigan.gov>, "Hall, Ben (DNRE)" <HALLB1@michigan.gov>, "Hare, Chris (DNRE)" <HAREC@michigan.gov>, "Hartz, Andrew (DNRE)" <HARTZA@michigan.gov>, "Hollenbach, Heidi (DNRE)" <HOLLENBACHH@michigan.gov>, "Roycraft, Phil (DNRE)" <ROYCRAFTP@michigan.gov>, "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov>, "Boucher, Cara (DNRE)" <BOUCHERC@michigan.gov>, "Boyd, Lynne (DNRE)" <BoydL1@michigan.gov>, "Browne, Elizabeth (DNRE)" <BROWNEE@michigan.gov>, "Creal, William (DNRE)" <CREALW@michigan.gov>, "Fiedler, Lynn (DNRE)" <FIEDLERL@michigan.gov>, "Fish, Kim (DNRE)" <FISHK@michigan.gov>, "Hellwig, Vince (DNRE)" <HELLWIGV@michigan.gov>, "Marolf, Lynelle (DNRE)" <MAROLFL@michigan.gov>, "Mason, Russ (DNRE)" <MasonR2@michigan.gov>, "Olson, Ron (DNRE)" <OLSONR@michigan.gov>, "Reeves, Douglas (DNRE)" <REEVESD@michigan.gov>, "Ruswick, Frank (DNRE)"

<RuswickF@michigan.gov>, "Shekter Smith, Liane (DNRE)" <SHEKTERL@michigan.gov>, "Barnard, Vicki (DNRE)" <BARNARDV@michigan.gov>, "Lee, Lonnie (DNRE)" <LEEL@michigan.gov>, "Masterson, Mike (DNRE)" <MASTERSONM@michigan.gov>, "Ostlund, Peter (DNRE)" <OSTLUNDP@michigan.gov>, "Schrantz, Phil (DNRE)" <SCHRANTZP@michigan.gov>, "Seidel, Teresa (DNRE)" <SEIDELT@michigan.gov>, "Franks, Robert (DNRE)" <FRANKSR1@michigan.gov>, "Julien, Tom (DNRE)" <JULIENT@michigan.gov>, "Lawson, Autumn (DNRE)" <LAWSONA@michigan.gov>, "Mroczkowski, Kenneth (DEQ)" <MROCZKOWSKIK@michigan.gov>, "Schleusener, Paul (DNRE)" <SCHLEUSENERP@michigan.gov>, "Yocum, William (DNRE)" <YOCUMW@michigan.gov>, "Schinderle, Jack (DNRE)" <SCHINDERLEJ@michigan.gov>, "Leiter, Lindacarol (DNRE)" <LEITERL@michigan.gov>, "Sellers, Fred (DNRE)" <SELLERSF@michigan.gov>

cc: "Ballo, Frank (DNRE)" <BALLOF@michigan.gov>, "Jordan, Kameron (DNRE)" <JORDANK@michigan.gov>, "Douglas, Mary (DNRE)" <DOUGLASM@michigan.gov>, "Emmanouil, Stavros (emmanouil.stavros@epa.gov)" <emmanouil.stavros@epa.gov>, "'holz.theresa@epa.gov'" <holz.theresa@epa.gov>, "Groetsch, Kory J." <GroetschK@michigan.gov>, "el-zein.jason@epa.gov" <el-zein.jason@epa.gov>, "VanOtteren, Bruce (DNRE)" <VANOTTERENB@michigan.gov>

Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co. 2nd POLREP from EPA

Here is the second POLREP from EPA, attached and pasted below, along with three pictures, attached.

- - - - -

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Tanker Truck (MEK) Explosion - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #2
Progress and Final POLREP
Tanker Truck (MEK) Explosion

Sawyer, MI
Latitude: 41.8877170 Longitude: -86.6036120

To:
From: Theresa Holz and Jeffery Lippert, On Scene Coordinator
Date: 7/24/2011
Reporting Period: 7/23/2011 0600 to 7/24/2011 1130

1. Introduction
1.1 Background

Site Number: Contract Number:
D.O. Number: Action Memo Date:
Response Authority: CERCLA Response Type: Emergency

Response Lead: PRP Incident Category:
NPL Status: Non NPL Operable Unit:
Mobilization Date: 7/22/2011 Start Date: 7/22/2011
Demob Date: 7/24/2011 Completion Date:
CERCLIS ID: RCRIS ID:
ERNS No.: State Notification:
FPN#: Reimbursable Account #:

1.1.1 Incident Category
Emergency Response

1.1.2 Site Description

On 7/21/11 at 1934 hrs, an explosion occurred in a tanker truck parked at a truck stop (Travel America) at Exit 12 off of I-94 in Benton Harbor, Michigan. The tanker truck was transporting an estimated 4,600 gallons of a mix of approximately 86% water, 13% Sodium Hydroxide, and 1% Methyl Ethyl Ketone (MEK). The explosion occurred due to the buildup of hydrogen gas produced from a reaction between the sodium hydroxide and the aluminum tanker. As a result of the explosion, the contents of the tanker were released into a storm drain sewer along Sawyer Road in Sawyer, Berrien County, Michigan. The storm sewer discharges to Deer Creek, a tributary to Lake Michigan. The responsible parties, Marcus Trucking and Clean Harbors, are conducting cleanup operations under the oversight of the Chikaming Fire Department, local (Berrien County) and state government (MDEQ) officials, and USEPA.

The impacted Deer Creek is approximately 1.25 miles long. Contractors have created two earthen berms in between the release point and Lake Michigan. The first berm is located at the discharge of the sewer into Deer Creek just north of Sawyer Road. The second berm is located on the east side of Tower Hill Road and just north of Gandy Lane.

Current Activities

During the reporting period, the PRP continued vacuuming impacted areas of the creek with high pH (near earthen berms). A third berm, constructed with sheet piling, was installed where Deer Creek crosses Ravenswood Lane. USEPA, START, and MDEQ continued monitoring the pH along Deer Creek and at the confluence with Lake Michigan.

On the morning of 7/23/2011, the Conservation Officer reopened the beach at Warren Dunes State Park based on neutral pH readings recorded by USEPA, START, and MDEQ personnel. Warren Dunes State Park is located approximately 1.1 miles north of where Deer Creek empties into Lake Michigan.

On 7/23/2011 at approximately 0900 hours, personnel observed a fish kill (including sucker and sunfish) on Deer Creek downstream of the second berm. pH readings observed in these areas ranged from 9.6 to 11.1 standard units (SU). Clean Harbors neutralized areas of Deer Creek with high pH using vinegar, as approved by MDEQ.

On 7/23/2011 at approximately 1400 hours, START and USEPA conducted monitoring of puddles on Sawyer Road and inside the storm sewers along Sawyer Road. pH readings of the puddles ranged from 8.2 to 9.5 SU, with the exception of on pH reading of 11.4 SU located further east near the spill site. pH readings of water inside the storm sewers ranged from 7.6 to 9.6 SU, with the exception of the two catch basins located furthest east near the spill site which had pH readings of 10.35 and 13.73 SU. Clean Harbors vacuumed out the two catchbasins and power washed the road in these areas.

START and USEPA also measured the pH of the standing water at the outflow pipe in the vegetated area near the I-94 off-ramp. pH at this location was 10.5 SU. Clean Harbors vacuumed out water with high pH in this area and neutralized the area with vinegar. Final pH readings were observed at 7.6 SU (on 7/24/2011).

On 7/23/2011 at approximately 1830 hours, USEPA received an inquiry from a nearby resident with a private drinking water well regarding the quality of the drinking water. USEPA and START collected a pH reading of 7.57 SU at the outside spigot indicating drinking water that is safe for consumption.

On 7/23/2011 at approximately 2030 hours, Clean Harbors began pumping water over the berm at Tower Hill Road based on pH readings up stream below 9 su. USEPA, START, and MDEQ continued monitoring the pH along Deer Creek and at the confluence with Lake Michigan. pH readings in Deer Creek were consistently below 9.5 SU, except immediately downstream of the Tower Hill Road earthen berm. The pH downstream of the Tower Hill Road earthen berm was 11.3 SU.

By 7/24/2011, the soil berms protecting the catchbasins along Sawyer Road were all removed and Exit 12 on Eastbound I-94 and Sawyer Road were reopened to vehicular traffic.

On 7/24/2011 at approximately 0600 hours, the earthen berm at Sawyer Road failed. The sand that was used to construct the berm was washed downstream. Shortly after, the earthen berm at Tower Hill Road also failed and sand was washed downstream. As a result, the water in Deer Creek became highly turbid. USEPA, START, and MDEQ continued to monitor all downstream locations along Deer Creek. As of 7/24/2011 at approximately 1130 hours, the pH readings at all monitoring locations along Deer Creek and at the confluence with Lake Michigan were below 9.0 SU. MDEQ and USEPA determined that the water quality in Deer Creek has been restored.

Next steps

Deer Creek remains closed for the weekend. County Health Department personnel will review data on 7/25/2011 to determine whether to reopen Deer Creek.

Clean Harbors will install silt fencing in Deer Creek to reduce the amount of suspended solids from the failed earthen berms that will enter Lake Michigan.

Clean Harbors will profile the soil and wastewater for off-site transport and disposal.

1.1.2.1 Location

Spill ocurred at 6100 Sawyer Road in Benton Harbor, Michigan.

1.1.2.2 Description of Threat

Caustic liquid spilled at truck stop and into strom sewer which emptied into Deer Creek.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities
    2.1 Operations Section

2.2 Planning Section
2.3 Logistics Section
2.4 Finance Section
2.5 Safety Officer
2.6 Liaison Officer
2.7 Information Officer

3. Participating Entities
   3.1 Unified Command
   3.2 Cooperating and Assisting Agencies
4. Personnel On Site
5. Definition of Terms
6. Additional sources of information
   6.1 Internet location of additional information/reports
   6.2 Reporting Schedule
7. Situational Reference Materials

- - - - -

Bruce VanOtteren
Pollution Emergency Alerting System (PEAS) Administrator
Michigan Department of Environmental Quality &
Michigan Department of Natural Resources
Shared Emergency Management Services
Tel.: (517) 373-8427, FAX: 517-241-8549

PEAS Hotline: 800-292-4706
www.michigan.gov/deqrelease
DEQ Env. Assist. Center Hotline: 800-662-9278
DNR Report All Poaching Hotline: 800-292-7800

-----Original Message-----
From: holz.theresa@EPA.GOV [mailto:holz.theresa@EPA.GOV]
Sent: Sunday, July 24, 2011 5:59 PM
To: EMMANOUIL.STAVROS@EPA.GOV; holz.theresa@EPA.GOV; lgraczyk@dynamac.com; mike.mejac@westonsolutions.com; jamese@spicergroup.com; Jordan, Kameron (DNRE); rbush@berriencounty.org; rzilke@Berriencounty.org; Reber, Barry; Whitmyer, Nathan (DNRE); geer.charles@cleanharbors.com; weaver.charles@cleanharbors.com; nachowicz.linda@epa.gov; gebien.charles@epa.gov; el-zein.jason@epa.gov; ropski.carol@epa.gov; maritote.john@epa.gov; VanOtteren, Bruce (DNRE); Ballo, Frank (DNRE); lall.partap@epa.gov; ben.maradkel@westonsolutions.com; lauren.cook@westonsolutions.com
Subject: Pollution Report # (Final)2 Tanker Truck (MEK) Explosion - Progress and Final POLREP

Attached is a Pollution Report (POLREP) regarding:

USEPA Region V
Tanker Truck (MEK) Explosion
6100 Sawyer Road, Sawyer, MI

To view this POLREP, please open the attachment.
Lotus Notes Users, please Launch the attachment.

For additional information regarding this site,
please visit the website by clicking on this link:
http://www.epaosc.org/TankerTruckMEKExplosion

-----Original Message-----
From: VanOtteren, Bruce (DNRE)
Sent: Saturday, July 23, 2011 6:42 AM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.; el-zein.jason@epa.gov
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Below is the initial POLREP from EPA on this incident:

From: holz.theresa@EPA.GOV [holz.theresa@EPA.GOV]
Sent: Saturday, July 23, 2011 6:10 AM
To: EMMANOUIL.STAVROS@EPA.GOV; holz.theresa@EPA.GOV; lgraczyk@dynamac.com; mike.mejac@westonsolutions.com; jamese@spicergroup.com; Jordan, Kameron (DNRE); rbush@berriencounty.org; rzilke@Berriencounty.org; Reber, Barry; Whitmyer, Nathan (DNRE); geer.charles@cleanharbors.com; weaver.charles@cleanharbors.com; nachowicz.linda@epa.gov; gebien.charles@epa.gov; el-zein.jason@epa.gov; ropski.carol@epa.gov; maritote.john@epa.gov; VanOtteren, Bruce (DNRE); Ballo, Frank (DNRE); lall.partap@epa.gov
Subject: Pollution Report # (Initial)1 Tanker Truck (MEK) Explosion - Initial Pollution Report - Tank Truck Explosion

Attached [pasted below] is a Pollution Report (POLREP) regarding:

USEPA Region V
Tanker Truck (MEK) Explosion
6100 Sawyer Road, Sawyer, MI

To view this POLREP, please open the attachment.
Lotus Notes Users, please Launch the attachment.

For additional information regarding this site,
please visit the website by clicking on this link:
http://www.epaosc.org/TankerTruckMEKExplosion

- - -

U.S. ENVIRONMENTAL PROTECTION AGENCY

POLLUTION/SITUATION REPORT
Tanker Truck (MEK) Explosion - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #1
Initial Pollution Report - Tank Truck Explosion
Tanker Truck (MEK) Explosion

Sawyer, MI
Latitude: 41.8877170 Longitude: -86.6036120

To:
From: Theresa Holz, On Scene Coordinator
Date: 7/23/2011
Reporting Period: 7/22/2011 - 7/23/2011

1. Introduction
1.1 Background

Site Number: Contract Number:
D.O. Number: Action Memo Date:
Response Authority: CERCLA Response Type: Emergency
Response Lead: PRP Incident Category:
NPL Status: Non NPL Operable Unit:
Mobilization Date: 7/22/2011 Start Date: 7/22/2011
Demob Date: Completion Date:
CERCLIS ID: RCRIS ID:
ERNS No.: State Notification:
FPN#: Reimbursable Account #:

1.1.1 Incident Category
Emergency Response

1.1.2 Site Description

On 7/21/11 at 1934 hrs, an explosion occurred in a tanker truck transporting 4600 gallons of a mix of approximately 86% water, 13% Sodium Hydroxide, and 1% Methyl Ethyl Ketone (MEK) in Sawyer, Berrien County, Michigan, and into the Sawyer drain sewer which discharges to Deer Creek which is a tributary to Lake Michigan. The explosion occurred at a truck stop (Travel America) at Exit 12 off of I-94 in Benton Harbor, Michigan. The responsible parties, Marcus Trucking and Clean Harbors, are conduting cleanup operations under the oversight of the Chikaming Fire Department, local (Berrien County) and state government (MDEQ) officials, and USEPA.

At 1400, MDEQ requested USEPA support for water sampling and overall response support. OSC Holz arrived on scene at 1730 on 7/22/11 and was accompanied by two START members.

Prior to USEPA getting on site, PRPs conducted the following cleanup activities:
- Recovering source area liquids via vacuum truck
- Decontamination of ruptured tanker truck and loaded ruptured pieces onto flat bed
- Recovering impacted liquids from the creek via vacuum truck

Current Activities

The impacted Deer Creek is approximatley 1.25 miles long. Contractors have created two earthen berms in between the release point and Lake Michigan. The first berm is located at the discharge of the sewer into Deer Creek just north of Sawyer Road. The second berm is located on the east side of Tower Hill Road and just north of Gandy Lane. START is monitoring the pH in between the berms hourly and has recorded readings between approximately 10 and 11. MDEQ is monitoring the pH at the confluence of Deer Creek and Lake Michigan, readings at this location have been approximately 7 pH units. No odors or vapors are evident. Exit 12 on Eastbound I-94 and a portion of Sawyer Road is currently closed.

During the reporting period, cleanup contractors performed the following activites:

- Completed ruptured tanker truck decontamination
- Power washed parking lot where explosion occurred
-Vacuumed impacted areas of the creek with high pH (near earthern berms)

During pH testing between berms and at the area near the confluence of Deer Creek and Lake Michigan, MDEQ and USEPA contractor collected samples to be analyzed by the HAZMAT ID. HAZMAT ID reported the samples as containing Water.

With MDEQ assisstance, the USEPA contractor collected split samples with Clean Harbors in three areas on Deer Creek - just east of the first berm, just east of the second berm, and at the confluence of Lake Michigan and the creek. A water sample and a sediment sample were collected at each of the three areas sampled. The USEPA samples are to be analyzed for VOCs, pH, and metals. Clean Harbors is to analyze their samples for pH and VOCs.

Warren Dunes State Park is located approximately 1.1 miles north of where Deer Creek empties into Lake Michigan. The Conservation Officer closed the beach at Warren Dunes State Park early afternoon on 7/22/2011. The beach will reopen the morning of 7/23/2011, due to neutral pH readings at the confluence of Lake Michigan and Deer Creek and the apparent lack of further migration of the spilled material. MDEQ and USEPA continue to monitor pH readings at the Tower Road berm and the confluence of Deer Creek and Lake Michigan.

Deer Creek remains closed for the weekend.

Next steps

-Prepare berms for inclement weather
-Continue vac operations along creek
-Begin flushing sewers which lead to creek

1.1.2.1 Location

Spill ocurred at 6100 Sawyer Road in Benton Harbor, Michigan.

1.1.2.2 Description of Threat

Caustic liquid spilled at truck stop and into strom sewer which emptied into Deer Creek.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities
    2.1 Operations Section

    2.2 Planning Section
    2.3 Logistics Section
    2.4 Finance Section
    2.5 Safety Officer
    2.6 Liaison Officer
    2.7 Information Officer

3. Participating Entities
    3.1 Unified Command
    3.2 Cooperating and Assisting Agencies
4. Personnel On Site
5. Definition of Terms
6. Additional sources of information
    6.1 Internet location of additional information/reports
    6.2 Reporting Schedule
7. Situational Reference Materials

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 6:52 PM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE); Schinderle, Jack (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holz.theresa@epa.gov'; Groetsch, Kory J.
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Chief Hagler asked me to summarize this afternoon's conference call and provide a note to the DEQ Major Emergency distribution list and others who became involved:

The manifest from Clean Harbors, owner of the released material, indicating the material was concentrated sodium hydroxide, with trace organics (<500ppm), is consistent with many observations on scene: the fact that the tanker didn't explode and burn when it blevied due to pressurization, the fact that it corroded aluminum fittings in the tanker which the carrier had utilized because they were under the impression that the load was MEK (thus

the tanker labeling code), the fact that no odor was observed along the creek when about 1,150 gallons had been released to it, and the fact that the material's high pH did not dilute to normal pHs in the creek as readily as it would have had if the load was MEK with trace caustics. So having some confidence in knowing what was released, and being able to monitor that relatively easily with pH monitoring instruments, it was decided to continue to monitor the creek outlet and Lake Michigan until the concentrations returned to normal, and to have the drain commissioner and his engineer evaluate the integrity of the dikes installed to hold back a part of the solution released to the sewer system. Once the dike integrity was deemed sufficient and the pHs were normal then the surrounding beachs could be reopened, and it was roughly projected that this would happen by 7pm. The river would remain closed to access or water withdrawal pending further investigation, hopefully only a day or two. Results from our samples will be forwarded upon receipt. We are also looking into some confusing aspects of the manifest suggesting other constituents were present, which Jack Schinderle probably read to have been minor constiuents or only possible contaminants of the bulk material.

Below is a note from Chief Hagler to the DNR to this effect, and below that is a note from DCH supporting our approach.

If anyone has any additions or corrections please reply all to this note so everyone is copied.

Thanks,

Bruce VanOtteren
517-388-5428 (cell)

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 5:58 PM
To: Mason, Russ (DNRE); Olson, Ron (DNRE); Boyd, Lynne (DNRE); Molnar, Dean (DNRE); Hopkins, Daniel (DNRE); VanOtteren, Bruce (DNRE); Wolf, Jennifer (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Dettloff, Mary (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Dexter, James (DNRE); Hoffman, Mark (DNRE); Vansumeren, Dave (DNRE); Doss, Zachary (DNRE)
Subject: Berrien Co. Spill and Warren Dunes Beach closing

It looks as though containment and dilution within the water will allow the beach to reopen at Warren Dunes State Park later this evening. Once contract engineers confirm that adequate containment dikes are in place to stop the migration of the substance and as long as ph levels remain within allowable limits along the stream mouths entry into Lake Michigan the order to reopen the beach will occur. Det. Bill Ford will be contacting Parks Division personnel to let them know that it is OK to open the beach area we expect that this may happen as early as 7pm. Brad Wurfel DEQ is handling media release information and Mark Hoffman is coordinating additional DNR media efforts. EPA is now on site to assist.

Thanks
GH

Gary Hagler
Law Enforcement Division Chief
Michigan Dept. of Natural Resources
(517) 335-7296

From: Groetsch, Kory J. [GroetschK@michigan.gov]
Sent: Friday, July 22, 2011 5:49 PM
To: VanOtteren, Bruce (DNRE)
Cc: Dykema, Linda D.; Wade, David R.
Subject: Re: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Hi Bruce,

Thank you for phone call. To follow-up on our conversation, as you stated on the phone the reports below are not accurate with regards to the spill being concentrated MEK. Per our conversation, DEQ is reporting that the spill
is caustic material (NaOH), no significant organic chemical concerns exist (MEK at less than 500 ppm). The creek is continuing to be monitored for pH and upstream barrier has been put in place to prevent remaining residue from reaching Lake Michigan. The outfall of the stream into the lake is below a pH
of 9 as well as the creek proper.

The beach in question is along Lake Michigan. As a precaution, local health had people leave the water today, but given the spill has been contained and pH levels have fallen below 9, the officials on-scene plan to allow swimmer back in the water this evening (7 or 8 pm). Local health department is involved in this effort.

Based on the information provided, my opinion is that MDCH- DEH support these actions as being appropriate.

Thank you,

Kory Groetsch, Toxicologist
MDCH-Division of Environmental Health
Capitol View Bldg, 4th Floor, Office 4-054
201 Townsend St.
Lansing, MI 48913

(517) 335-9935
www.michigan.gov/mdch-toxics

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 3:58 PM
To: VanOtteren, Bruce (DNRE); DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk, Judy (DNR); Vallier, Connie; Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ

(DNRE); Merrick, JoAnn (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Smith, Kelley (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Sellers, Fred (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); 'holtz.theresa@epa.gov'; 'holz.theresa@epa.gov'
Subject: RE: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

I talked with Randy Badiuk, with the carrier company Harold Marcus, LLT, who told me it's unknown to him why the load was so caustic. He thought it should have been just methyl ethyl ketone (MEK), as per the ID#1993. Also MEK is incompatible with sodium hydroxide (NaOH) so it makes no sense to me or Randy that MEK would be stabilized by NaOH. The load was caustic enough to blevy in the appx. 7 hours from the time it was loaded. This is all from the carrier, so we need to talk to the owner of the MEK, Clean Harbor. The load was going from one Clean Harbor facility to another.

I have requested Theresa Holz's cell phone number, and we'll get an ETA.

-----Original Message-----
From: STAVROS EMMANOUIL [mailto:Emmanouil.Stavros@epamail.epa.gov]
Sent: Friday, July 22, 2011 3:05 PM
To: VanOtteren, Bruce (DNRE)
Cc: Theresa Holz; PARTAP LALL; Jeffrey Lippert
Subject: Re: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Ok.

Theresa Holz from the Chicago office will be responding

- -

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 2:07 PM
To: Emmanouil, Stavros (emmanouil.stavros@epa.gov)
Cc: Marolf, Lynelle (DNRE); Hagler, Gary (DNRE); Ballo, Frank (DNRE)
Subject: FW: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

My management has decided to ask for EPA assistance primarily due to the uncontrolled release to the water but to help in all respects - please mobilize as soon as possible. Give me a call if needed 517-388-5428.

Here is a new NRC report fulfilling the RP's notifications requirements apparently - no new info I can see.

NATIONAL RESPONSE CENTER 1-800-424-8802
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***
Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 983559

INCIDENT DESCRIPTION

*Report taken by: MST1 JERRY HARDY at 14:39 on 22-JUL-11
Incident Type: MOBILE
Incident Cause: EXPLOSION
Affected Area:
Incident occurred on 21-JUL-11 at 21:10 local incident time.
Affected Medium: LAND CONCRETE

REPORTING PARTY

Name: RANDY BADIUK
Organization: HAROLD MARCUS LTD.
Address: 15124 LONGWOOD ROAD
BOTHWELL, CN

PRIMARY Phone: (519)3805292
Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: RANDY BADIUK
Organization: HAROLD MARCUS LTD.
Address: 15124 LONGWOOD ROAD
BOTHWELL, CN
PRIMARY Phone: (519)3805292

INCIDENT LOCATION

County: BERRIEN
City: SAWIER State: MI
HWY I-94 AT EXIT 12

RELEASED MATERIAL(S)

CHRIS Code: MEK Official Material Name: METHYL ETHYL KETONE
Also Known As:
Qty Released: 0 UNKNOWN AMOUNT
CHRIS Code: NCC Official Material Name: NO CHRIS CODE
Also Known As: WASTE, FLAMMABLE LIQUID NOS(UN 1993)
Qty Released: 4600 GALLON(S)

DESCRIPTION OF INCIDENT

CALLER REPORTED TANKER LOADED WITH WASTE MATERIAL, ENROUTE TO ONTARIO, CANADA THE MATERIAL REACTED TO THE ALUMINUM TANK AND EXPLODED.

SENSITIVE INFORMATION

INCIDENT DETAILS

Road Mile Marker: 12
Length of Service Disruption:
Airbag Deployed: UNKNOWN
---MOBILE INFORMATION---

Vehicle Type: TANKER TRUCK
Vehicle Number: UNKNOWN
Trailer/Tanker Number:
Vehicle Fuel Capacity:
Cargo Capacity:
Cargo On Board:
Hazmat Carrier: YES
Carrier Licensed: YES
Suspected Non Compliance: UNKNOWN

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES: NO Hospitalized: Empl/Crew: Passenger:
FATALITIES: NO Empl/Crew: Passenger: Occupant:
EVACUATIONS:NO Who Evacuated: Radius/Area:

Damages: NO

Closure Type	Description of Closure	Hours Closed	Direction of Closure
Air: N			
Road: N			Major Artery:N
Waterway: N			
Track: N			

Environmental Impact: UNKNOWN
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

CREWS CLEANING UP MATERIAL TRAPPED IN BOOM, SCRAPING AND DISPOSING OF SAND USED AS BERMS.
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

Weather: CLEAR, °F

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE
State/Local: MI DEQ, MI DNR, MI DOT, LOCAL FD AND PD
State/Local On Scene: MI DEQ, MI DNR, MI DOT, LOCAL FD AND PD
State Agency Number: NONE

NOTIFICATIONS BY NRC

ATLANTIC STRIKE TEAM (MAIN OFFICE)
22-JUL-11 15:02 (609)7240008
USCG ICC (ICC ONI)
22-JUL-11 15:02 (301)6693363
CG INVESTIGATIVE SERVICE DETROIT (RESIDENT AGENT OFFICE, DETROIT)
22-JUL-11 15:02 (586)2396759
DHS CUSTOMS AND BORDER PATROL (MICHIGAN FIELD OFFICE)
22-JUL-11 15:02 (586)2392219
DHS PROTECTIVE SECURITY ADVISOR (PSA DESK)
22-JUL-11 15:02 (703)2355724

DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
22-JUL-11 15:02 (202)3661863
U.S. EPA V (MAIN OFFICE)
(312)3532318
FBI STRATEGIC INFO OPERATIONS CNTR (MAIN OFFICE)
(202)3233300
FLD INTEL SPT TEAM SAULT STE TEAM (SECTOR INTEL STAFF)
22-JUL-11 15:02 (906)2532417
MICHIGAN DEPT OF COMMUNITY HEALTH (HSEES)
22-JUL-11 15:02 (517)3358364
MI INTELLIGENCE OPERATIONS CENTER (FUSION CENTER)
22-JUL-11 15:02 (517)2418000
MI INTELLIGENCE OPERATIONS CENTER (CIP DESK)
22-JUL-11 15:02 (517)3350262
NATIONAL INFRASTRUCTURE COORD CTR (MAIN OFFICE)
22-JUL-11 15:02 (202)2829201
NOAA RPTS FOR MI (MAIN OFFICE)
22-JUL-11 15:02 (206)5264911
NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)
(202)2671136
NTSB PIPELINE (MAIN OFFICE)
22-JUL-11 15:02 (202)3146293
OH U.S. ATTORNEY'S OFFICE NORTH (MAIN OFFICE)
22-JUL-11 15:02 (216)6223730
HOMELAND SEC COORDINATION CENTER (MAIN OFFICE)
22-JUL-11 15:02 (202)2828300
PIPELINE & HAZMAT SAFETY ADMIN (OFFICE OF PIPELINE SAFETY (AUTO))
22-JUL-11 15:02 (202)3660568
SECTOR LAKE MICHIGAN (COMMAND CENTER)
(414)7477182
SECTOR LAKE MICHIGAN (MSD GRAND HAVEN)
22-JUL-11 15:02 (616)8502580
ST JOSEPHS COUNTY HEALTH DEPT (SPILL RESPONSE)
22-JUL-11 15:02 (574)2456760
IN DEPT ENV MNGMT (MAIN OFFICE)
22-JUL-11 15:02 (317)2337745
MICHIGAN DEQ (MAIN OFFICE)
22-JUL-11 15:02 (800)2924706
MICHIGAN DEQ (MAIN OFFICE 2)
22-JUL-11 15:02 (517)2411252
USCG DISTRICT 9 (COMMAND CENTER)
22-JUL-11 15:02 (216)9026109

ADDITIONAL INFORMATION

CALLER HAD NO ADDITIONAL INFORMATION.

*** END INCIDENT REPORT #983559 ***

Report any problems by calling 1-800-424-8802

PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil< http://www.nrc.uscg.mil/>

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 1:24 PM
To: DEQ-PEAS; Dettloff, Mary (DNRE); Fobbs, Terry (DELEG); Gross, Randy (DNRE); Hagler, Gary (DNRE); Hobrat, Ralph; Jones, Lynda (DNR); Kanicki Wilson, Bonnie; Krzanowski, Karen; Merrick, JoAnn (DNRE); Molnar, Dean (DNRE); OperationsLts, Lieutenants; Phifer, Eileen; Porcello, James; Quiggle, Lisa; Sadler, Taunia (DNRE); Shaler, Karen (DNRE); Smith, Kelley (DNRE); Stokes, Rodney (DNRE); Sygo, Jim (DNRE); Thelen, Mary Beth (DNRE); Tkaczyk,

Judy (DNR); Vallier, Connie; VanOtteren, Bruce (DNRE); Wingate, Thomas (DNRE); Wolf, Jennifer (DNRE); Woods, Vence (DNRE); Wurfel, Brad (DNRE); Wyant, Dan; Adelman, Mitch (DEQ); Casey, Steve (DNRE); Hall, Ben (DNRE); Hare, Chris (DNRE); Hartz, Andrew (DNRE); Hollenbach, Heidi (DNRE); Roycraft, Phil (DNRE); Sellers, Fred (DNRE); Boucher, Cara (DNRE); Boyd, Lynne (DNRE); Browne, Elizabeth (DNRE); Creal, William (DNRE); Fiedler, Lynn (DNRE); Fish, Kim (DNRE); Hellwig, Vince (DNRE); Marolf, Lynelle (DNRE); Mason, Russ (DNRE); Merrick, JoAnn (DNRE); Olson, Ron (DNRE); Reeves, Douglas (DNRE); Ruswick, Frank (DNRE); Shekter Smith, Liane (DNRE); Smith, Kelley (DNRE); Barnard, Vicki (DNRE); Lee, Lonnie (DNRE); Masterson, Mike (DNRE); Ostlund, Peter (DNRE); Schrantz, Phil (DNRE); Seidel, Teresa (DNRE); Franks, Robert (DNRE); Julien, Tom (DNRE); Lawson, Autumn (DNRE); Mroczkowski, Kenneth (DEQ); Schleusener, Paul (DNRE); Yocum, William (DNRE)
Cc: Ballo, Frank (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Sellers, Fred (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov)
Subject: MEK/NaOH blevy - Sawyer, MI, Berrien Co.

Chief Hagler, EMC asked me to forward the latest information on the methyl ethyl ketone / sodium hydroxide blevy which occurred yesterday evening and is ongoing. If you have updates on this incident for the group please reply all.

From: Ballo, Frank (DNRE)
Sent: Friday, July 22, 2011 1:14 PM
To: VanOtteren, Bruce (DNRE); Hagler, Gary (DNRE)
Cc: Emmanouil, Stavros (emmanouil.stavros@epa.gov); Marolf, Lynelle (DNRE)
Subject: RE: New Information Berrien Co. Spill Possible Impact on Warren Dunes State Park Beach area

I talked with Ben Zimont (on site) and Kam Jordan (in Kalamazoo) regarding requesting USEPA's assistance. Although it's currently raining there and activities are at a temporary standstill, at this time, the companies appear to have the necessary equipment on-site to complete the surficial cleanup, begin and complete cleanup of the storm sewers and catchment basins, and contain and collect all the water at the storm sewer outfall. Although the pH was previously measured in the stream between 10 and 12, we're awaiting new, more extensive results to evaluate current conditions.

At this time, Kam and I feel the situation is as controllable as possible, and there's no need for USEPA to respond. Thanks again, Stavros, for being so willing to assist us. I have to say, if conditions change or significantly different information becomes available, we may need to reconsider.

Thanks again...

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 12:34 PM
To: Hagler, Gary (DNRE)
Cc: Ballo, Frank (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov)
Subject: RE: New Information Berrien Co. Spill Possible Impact on Warren Dunes State Park Beach area

Hi Gary,
Frank Ballo is going to be talking with Ben Zimont very soon, if not right now, and will get back to us with a field report, and an opinion on whether to request EPA assistance. As said, I have already given EPA (Stavros Emmanouil - duty officer in Chicago this week) an FYI about the situation, and they are standing by in case we need to request their assistance.
Bruce

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 12:06 PM
To: Stokes, Rodney (DNRE); Dettloff, Mary (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Dexter, James (DNRE); Sygo, Jim (DNRE); Wyant, Dan; Wichman, Mary
Cc: Mason, Russ (DNRE); Olson, Ron (DNRE); Boyd, Lynne (DNRE); Molnar, Dean (DNRE); Hopkins, Daniel (DNRE); VanOtteren, Bruce (DNRE); Wolf, Jennifer (DNRE); Wurfel, Brad (DNRE); SEOC, Operations Chief; Creal, William (DNRE); Shekter Smith, Liane (DNRE); Marolf, Lynelle (DNRE)
Subject: New Information Berrien Co. Spill Possible Impact on Warren Dunes State Park Beach area
Importance: High

Based on information that I have just received from Det. Ford indicating that the impacted creek flows into Lake Michigan about a ¼ mile from Warren Dunes State Park Beach, I have directed that the Beach area be immediately closed until sampling can be done to ensure a safe environment for those that would using the beach. CO Andy Bauer is on site and transporting the Drain Commissioner to sampling sites to address the potential impacts on the beach are and Lake. I contacted Parks Chief Ron Olson directly and notified him of this decision. He along with Det. Ford will ensure that the Park Manager is notified to close the beach area.

Gary Hagler
Law Enforcement Division Chief
Michigan Dept. of Natural Resources
(517) 335-7296

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 11:41 AM
To: Stokes, Rodney (DNRE); Dettloff, Mary (DNRE); Hoffman, Mark (DNRE); Smith, Kelley (DNRE); Dexter, James (DNRE); Sygo, Jim (DNRE); Wyant, Dan; Wichman, Mary
Cc: Mason, Russ (DNRE); Olson, Ron (DNRE); Boyd, Lynne (DNRE); Molnar, Dean (DNRE); Hopkins, Daniel (DNRE); VanOtteren, Bruce (DNRE); Wolf, Jennifer (DNRE); Wurfel, Brad (DNRE); SEOC, Operations Chief; Creal, William (DNRE); Shekter Smith, Liane (DNRE); Marolf, Lynelle (DNRE)
Subject: FW: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

FYI all,

This is a work in progress I have been in contact with MSP EMHSD as well. Sampling by the Co. Drain Commissioner is underway the main concern is the Ph content which was 12 where the fish kill occurred at about 1.25 miles from Lake Michigan. This is a creek that directly flows to Lake Michigan they are looking at getting a sample closer to the lake to assess potential impacts, from what I have been told there are no real recreational opportunities until you get to Lake Michigan that would be impacted by this incident. The County is engaged in the Emergency Management of this situation. Detective Bill Ford (from DNR/DEQ) is on site and assessing the situation as well Ben Zimont DEQ has been working on this since last evening. I am told that the local Fish Biologist and Fisheries Supervisor J. Wesley are aware of this situation and it is not considered a sport fishery in which Fish Division would engage. I will pass on additional information as I get additional briefings.

Gary Hagler
Law Enforcement Division Chief
Michigan Dept. of Natural Resources
(517) 335-7296

From: Hopkins, Daniel (DNRE)
Sent: Friday, July 22, 2011 11:17 AM
To: Hagler, Gary (DNRE); Molnar, Dean (DNRE)
Cc: Bauer, Andrew (DNRE); Doss, Zachary (DNRE); Vansumeren, Dave (DNRE)
Subject: RE: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Chief, Berrien Co. officer Andy Bauer is in service and will respond to the scene. Andy will contact and coordinate his activities with Bill Ford. His primary objective at this time, with the guidance of Bill Ford on safe access, will be to assess the existence and status of any fish kills that may have occurred. In addition he will monitor and assess any public safety or resource related concerns that arise.

Dan.....

Captain Daniel W. Hopkins
Field Operations Coordinator, Law Enforcement Division
Gaylord Operations Service Center
1732 West M-32
Gaylord, Michigan 49735
989-732-3541 Ext. 5045

From: VanOtteren, Bruce (DNRE)
Sent: Friday, July 22, 2011 10:37 AM
To: Hagler, Gary (DNRE); Ballo, Frank (DNRE)
Cc: Sygo, Jim (DNRE); Emmanouil, Stavros (emmanouil.stavros@epa.gov); Franks, Robert (DNRE); DEQ-PEAS
Subject: FW: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Hi Gary,

Frank Ballo says he just got off the phone with you, and he has the best information probably, and he'll be sending out another update soon, which I'll get out to the complete Major Emergency Contact List. Water Resources Division and Fisheries Division have been notified, and I called EPA just to give them a heads up, but they are not responding unless we request them. Frank - let me know if you think you need resources more quickly and I can ask a division chief or Jim to approve officially calling for EPA's assistance.

Bruce VanOtteren
Pollution Emergency Alerting System (PEAS) Administrator
Michigan Department of Environmental Quality &
Michigan Department of Natural Resources
Shared Emergency Management Services
Tel.: (517) 373-8427, FAX: 517-241-8549

From: Hagler, Gary (DNRE)
Sent: Friday, July 22, 2011 10:32 AM
To: Molnar, Dean (DNRE); Hopkins, Daniel (DNRE)
Subject: Fw: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Fyi,
We have no COs on in Berrien Co I believe there has been a fish kill. Do not know the extent. The closest COs on are G. Patten Muskegon Co , and Dave Rogers, Kent Co. I have Bill Ford in Route to assess the situation for a

potential investigation. Do not yet know if Lake Michigan will be impacted.

Gh
Sent from Gary Hagler's Blackberry

From: Ballo, Frank (DNRE)
Sent: Friday, July 22, 2011 7:46 AM
To: Franks, Robert (DNRE); Sygo, Jim (DNRE); Schrantz, Phil (DNRE); Marolf, Lynelle (DNRE); Wurfel, Brad (DNRE); Gross, Randy (DNRE); Hagler, Gary (DNRE); VanOtteren, Bruce (DNRE); OperationsLts, Lieutenants; Hobrat, Ralph; Porcello, James; Kanicki Wilson, Bonnie; Merrick, JoAnn (DNRE)
Cc: Zimont, Ben (DNRE); Jordan, Kameron (DNRE); Douglas, Mary (DNRE); Sellers, Fred (DNRE); Heywood, David (DNRE); Lane, Rex (DNRE); Ford, William (DNRE); Drus, Tracy (DNRE)
Subject: RE: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Please be advised that Ben Zimont was on the scene last night working with Berrien County Sheriff's Department and HAZMAT. I talked with Ben around 11:00 pm and 6:00 am, and he reported that the incident involved a 4600 gallon tanker filled with methyl ethyl ketone stabilized with sodium hydroxide, making it a highly caustic compound. The material was mistakenly placed in either an aluminum tanker or a tanker with aluminum fittings causing the reaction. The trucking company involved is Harold Markus Trucking of Sarnia, and the load owner is Clean Harbors out of Chicago. The driver, coming from Chicago, apparently became aware of a problem with the load in Indiana, noticed there was a small leak, continued on into Michigan, and stopped again at the Sawyer Truck Stop in SW Berrien County. Upon inspection, he notice there was a greater leak, told other trucks and people in the area to get away, and attempted to contain the spilled material. Berrien County HAZMAT arrived, which immediately mobilized resources to berm the area, shortly thereafter the tanker blevied, but there was no fire. Pieces of the truck have been reported up to 500 feet away from the incident. No one was seriously injured, although one person was splashed in the face and two others report headaches, possibly from the explosion. Some of the material got into a storm sewer which flowed approximately 1000 feet to the headwaters of a small stream, the sewer grates have since been closed off and dirt has been piled near the exit of the sewer to minimize additional discharge into the surface waters.

Currently, Ben reports that attempts by the firms to get adequate personal protection equipment and vacuum/tank trucks to begin cleanup at the site have not gone expeditiously. He's been interfacing with the companies to speed cleanup, as there continues to be vapor risks, the caustic material has been sitting on the roadway potentially releasing into the ground, and a significant thunderstorm is imminent. I will be working with district WRD and AQD staff to assure other resource issues are being adequately addressed.

Please contact me if you have questions or need additional information.

Frank Ballo, Acting District Supervisor
Kalamazoo District
Remediation Division
Department of Environmental Quality
7953 Adobe Road
Kalamazoo, MI 49009

Phone 269-567-3531
Fax 269-567-9440
Email ballof@michigan.gov

From: Franks, Robert (DNRE)

Sent: Thursday, July 21, 2011 11:44 PM
To: Franks, Robert (DNRE); Sygo, Jim (DNRE); Ballo, Frank (DNRE); Schrantz, Phil (DNRE); Marolf, Lynelle (DNRE); Wurfel, Brad (DNRE); Sellers, Fred (DNRE); Hagler, Gary (DNRE); VanOtteren, Bruce (DNRE); OperationsLts, Lieutenants; Hobrat, Ralph; Porcello, James; Kanicki Wilson, Bonnie
Cc: Zimont, Ben (DNRE); Jordan, Kameron (DNRE)
Subject: RE: Major PEAS Incident - Berrien County - ADDITIONAL INFORMATION

Please be aware that the tanker truck was not a FUEL tanker. It was a tanker hauling some type of flammable liquid, initially thought to be methy ethyl ketone, but that is not confirmed at this time. Efforts are currently being made to contact the trucking company to determine the exact product that was being hauled.

From: Franks, Robert (DNRE)
Sent: Thursday, July 21, 2011 11:19 PM
To: Sygo, Jim (DNRE); Ballo, Frank (DNRE); Schrantz, Phil (DNRE); Marolf, Lynelle (DNRE); Wurfel, Brad (DNRE); Sellers, Fred (DNRE); Hagler, Gary (DNRE); VanOtteren, Bruce (DNRE)
Cc: Zimont, Ben (DNRE); Jordan, Kameron (DNRE)
Subject: Major PEAS Incident - Berrien County

Please see the PEAS incident report below regarding a fuel tanker truck explosion (no fire) in Berrien County. Ben Zimont-RD-Kalamazoo District Staff has been notified and is conducting followup, including traveling to the scene to represent the DEQ. It has been confirmed that some of the product migrated to the storm sewer, which discharges to a small creek that is a tributary to Lake Michigan. The spill site is at a truck stop, and is approximately four to five miles from Lake Michigan. Kameron Jordan, WD, Kalamazoo District Supervisor has been notified and made aware of the situation.

I spoke with the county emergency management coordinator, Captain Cory Burks (269-876-0126), and he told me that there was no fire involved. A tanker truck carrying an unknown flammable liquid likely overpressurized and exploded, releasing the entire 4,600 gallons of product to the parking lot of the truck stop. Initial response has been to bring in several truckloads of dirt/sand and dike off the spill. This effort has been successful in preventing additional migration of product. Cleanup is expected to be complete yet tonight. No evacuations were conducted, but a shelter in place warning was issued to the immediate vicinity.

- - -

IN: 2011-07-21 09:55 pm SBP
Current Date: 2011-07-21 Time: 21:55:03 Day: Agent: SBP
Status: AFTER HOURS
District Office: KALAMAZOO
PEAS Incident#: 3228
Complaintant Name: JOSH SHEPARDSON
Complainant Co Name: BERRIEN 911 AGENT: FOR GENERAL INFO ALT-W!
Complainant Address: 2100 EAST EMPIRE
Complainant Zip Code: 49022 City: BENTON HARBOR State: MI
Complainant Phone: (269)983-3060 Alternate Phone# N/A

Party/Company Involved? (UNSURE)
Party Involved Address: (UNSURE)
Party Involved City: (UNSURE) State: N/A Zip N/A

Incident address: 6100 SAWYER ROAD/TRAVEL AMERICA TRUCK STOP
Incident City : SAWYER
Incident Township: CHIKAMING
Incident County: BERRIEN District KALAMAZOO
Cross Streets to incident: MILE MARKER 12 ON I-94
(or mile marker if on highways)
Description of Incident: FUEL LEAK IN A TANKER TRUCK, HAZMAT TEAM DISPATCHED,
(agent include, injuries, TRUCK EXPLODED AND NOW THERE IS A LARGER LEAK.
fatalities, evacuations, SAWYER ROAD IS CLOSED. REQUESTING AN ESTIMATED TIME
If Road has been closed, OF ARRIVAL OF A REPRESENTATIVE SO THAT HE CAN NOTIFY
fire, etc) HIS SUPERVISOR.

Date Discovered: 07/21/11 Time Discovered: 7:34PM
Date Occurred: 07/21/11 Time Occured: 7:34PM
Is Incident still happening NOW? YES
Name of Pollutant: FUEL
Release to (select one) AIR AND SOIL
Amount Released to Air: (UNSURE)
Amount Released to Ground: 4600 GALLONS
Amount Released to Water:
Name of Body of Water, Drain/Ditch Involved: NA
Has cleanup contractor be contacted yet? NO
Name of Contractor & ETA:
Has insurance company contacted yet? NO
Insurance Company Name/Tel#:
Any efforts to clean up/contain release, if so what ?
YES BOOMS AND ABSORBANT

How much was recovered? (UNSURE)
Estimated time or date cleanup will be completed?
3 OR 4 HOURS
Are Emergency Crews on Scene? (e.g. police,fire, etc) Get Details POLICE, FIRE, AMBULANCE, COUNTY ROAD, HAZMAT TEAM, STATE HIGHWAY

Weather or Wind Condition at time of incident:
WIND NE 0 MPH 13 MPH GUST WINDS
What other agencies were notified by you?(911,health dept, EPA Etc)

Initial report:

IN (*FILED*): 2011-07-21 08:20PM TEP
OUT (*FILED*): 2011-07-21 08:34PM *ER AutoFile Current Date: 2011-07-21
Time: 20:20:22 Day: THURSDAY Agent: TEP
Status: AFTER HOURS IsTime: FALSE IsDay: TRUE
District Office: UNSURE
PEAS Incident#: 3227
Complaintant Name: RANDY BADIUK
Complainant Co Name: HAROLD MARCUS LLT AGENT: FOR GENERAL INFO ALT-W!
Complainant Address: 15124 LONGWOODS ROAD
Complainant Zip Code: 00000 City: State:
Complainant Phone: (519)380-5292 Alternate Phone# 800-265-9426

Party/Company Involved?
HAROLD MARCUS LLT
Party Involved Address: 15124 LONGWOODS ROAD

Party Involved City: SAWYER State: MI Zip 00000

Incident address: EXIT 12 AT 194
Incident City : SAWYER
Incident Township: N/A
Incident County: UNSURE District UNSURE
Cross Streets to incident: HWY 194 AT EXIT 12
(or mile marker if on highways)
Description of Incident: AT TA TRUCK STOP, ADVISING THAT 1 LITER FLAMABLE
(agent include, injuries, LIQUID HAS BEEN SPILLED
fatalities, evacuations,
If Road has been closed,
fire, etc)

Date Discovered: 07/20/2011 Time Discovered: 8:20 PM
Date Occurred: 07/21/2011 Time Occured: 8:20 PM
Is Incident still happening NOW? YES
Name of Pollutant: FLAMABLE LIQUID
Release to (select one) PAVEMENT
Amount Released to Air:
Amount Released to Ground:
Amount Released to Water:
Name of Body of Water, Drain/Ditch Involved:
Has cleanup contractor be contacted yet? YES
Name of Contractor & ETA: CLEAN HARBORS
Has insurance company contacted yet? NO
Insurance Company Name/Tel#:
Any efforts to clean up/contain release, if so what ?
CONTAINED WILL BE CROSS LOADED TO ANOTHER TRUCK

How much was recovered? 1 LITER
Estimated time or date cleanup will be completed?
12 AM 07/22/2011
Are Emergency Crews on Scene? (e.g. police,fire, etc) Get Details
FIRE AND POLICE ARE ON SCENE

Weather or Wind Condition at time of incident:
UNSURE
What other agencies were notified by you?(911,health dept, EPA Etc)
FIRE AND POLICE, MICHIGAN DEPT OF TRANSPORTATION

Bruce VanOtteren
Pollution Emergency Alerting System (PEAS) Administrator
Michigan Department of Environmental Quality &
Michigan Department of Natural Resources
Shared Emergency Management Services
Tel.: (517) 373-8427, FAX: 517-241-8549

PEAS Hotline: 800-292-4706
www.michigan.gov/deqrelease<http://www.michigan.gov/deqrelease>
DEQ Env. Assist. Center Hotline: 800-662-9278
DNR Report All Poaching Hotline: 800-292-7800

[cid:image001.jpg@01CC4888.1B588540] [
cid:image002.gif@01CC4888.1B588540]

(See attached file: TankerTruckMEKExplosion_polrep_2_2011-07-24_00-26-35_340.jpg)
(See attached file: TankerTruckMEKExplosion_polrep_2.htm)
(See attached file: TankerTruckMEKExplosion_polrep_2_2011-07-23_12-36-58_464.jpg)
(See attached file: TankerTruckMEKExplosion_polrep_2_2011-07-23_16-55-25_50.jpg)

TankerTruckMEKExplosion_polrep_2_2011-07-24_00-26-35_340.jpg

TankerTruckMEKExplosion_polrep_2.htm

TankerTruckMEKExplosion_polrep_2_2011-07-23_12-36-58_464.jpg

TankerTruckMEKExplosion_polrep_2_2011-07-23_16-55-25_50.jpg

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Tanker Truck (MEK) Explosion - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #2**
Progress and Final POLREP
Tanker Truck (MEK) Explosion

Sawyer, MI
Latitude: 41.8877170 Longitude: -86.6036120

To:
From: Theresa Holz and Jeffery Lippert, On Scene Coordinator
Date: 7/24/2011
Reporting Period: 7/23/2011 0600 to 7/24/2011 1130

1. Introduction

1.1 Background

Site Number:		**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	PRP	**Incident Category:**	
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	7/22/2011	**Start Date:**	7/22/2011
Demob Date:	7/24/2011	**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category
Emergency Response

1.1.2 Site Description

On 7/21/11 at 1934 hrs, an explosion occurred in a tanker truck parked at a truck stop (Travel America) at Exit 12 off of I-94 in Benton Harbor, Michigan. The tanker truck was transporting an estimated 4,600 gallons of a mix of approximately 86% water, 13% Sodium Hydroxide, and 1% Methyl Ethyl Ketone (MEK). The explosion occurred due to the buildup of hydrogen gas produced from a reaction between the sodium hydroxide and the aluminum tanker. As a result of the explosion, the contents of the tanker were released

into a storm drain sewer along Sawyer Road in Sawyer, Berrien County, Michigan. The storm sewer discharges to Deer Creek, a tributary to Lake Michigan. The responsible parties, Marcus Trucking and Clean Harbors, are conducting cleanup operations under the oversight of the Chikaming Fire Department, local (Berrien County) and state government (MDEQ) officials, and USEPA.

The impacted Deer Creek is approximately 1.25 miles long. Contractors have created two earthen berms in between the release point and Lake Michigan. The first berm is located at the discharge of the sewer into Deer Creek just north of Sawyer Road. The second berm is located on the east side of Tower Hill Road and just north of Gandy Lane.

Current Activities

During the reporting period, the PRP continued vacuuming impacted areas of the creek with high pH (near earthen berms). A third berm, constructed with sheet piling, was installed where Deer Creek crosses Ravenswood Lane. USEPA, START, and MDEQ continued monitoring the pH along Deer Creek and at the confluence with Lake Michigan.

On the morning of 7/23/2011, the Conservation Officer reopened the beach at Warren Dunes State Park based on neutral pH readings recorded by USEPA, START, and MDEQ personnel. Warren Dunes State Park is located approximately 1.1 miles north of where Deer Creek empties into Lake Michigan.

On 7/23/2011 at approximately 0900 hours, personnel observed a fish kill (including sucker and sunfish) on Deer Creek downstream of the second berm. pH readings observed in these areas ranged from 9.6 to 11.1 standard units (SU). Clean Harbors neutralized areas of Deer Creek with high pH using vinegar, as approved by MDEQ.

On 7/23/2011 at approximately 1400 hours, START and USEPA conducted monitoring of puddles on Sawyer Road and inside the storm sewers along Sawyer Road. pH readings of the puddles ranged from 8.2 to 9.5 SU, with the exception of on pH reading of 11.4 SU located further east near the spill site. pH readings of water inside the storm sewers ranged from 7.6 to 9.6 SU, with the exception of the two catch basins located furthest east near the spill site which had pH readings of 10.35 and 13.73 SU. Clean Harbors vacuumed out the two catchbasins and power washed the road in these areas.

START and USEPA also measured the pH of the standing water at the outflow pipe in the vegetated area near the I-94 off-ramp. pH at this location was 10.5 SU. Clean Harbors vacuumed out water with high pH in this area and neutralized the area with vinegar. Final pH readings were observed at 7.6 SU (on 7/24/2011).

On 7/23/2011 at approximately 1830 hours, USEPA received an inquiry from a nearby resident with a private drinking water well regarding the quality of the drinking water. USEPA and START collected a pH reading of 7.57 SU at the outside spigot indicating drinking water that is safe for consumption.

On 7/23/2011 at approximately 2030 hours, Clean Harbors began pumping water over the berm at Tower Hill Road based on pH readings up stream below 9 su. USEPA, START, and MDEQ continued monitoring the pH along Deer Creek and at the confluence with Lake Michigan. pH readings in Deer Creek were consistently below 9.5 SU, except immediately downstream of the Tower Hill Road earthen berm. The pH downstream of the Tower Hill Road earthen berm was 11.3 SU.

By 7/24/2011, the soil berms protecting the catchbasins along Sawyer Road were all removed and Exit 12 on Eastbound I-94 and Sawyer Road were reopened to vehicular traffic.

On 7/24/2011 at approximately 0600 hours, the earthen berm at Sawyer Road failed. The sand that was used to construct the berm was washed downstream. Shortly after, the earthen berm at Tower Hill Road also failed and sand was washed downstream. As a result, the water in Deer Creek became highly turbid. USEPA, START, and MDEQ continued to monitor all downstream locations along Deer Creek. As of 7/24/2011 at approximately 1130 hours, the pH readings at all monitoring locations along Deer Creek and at the confluence with Lake Michigan were below 9.0 SU. MDEQ and USEPA determined that the water quality in Deer Creek has been restored.

Next steps

Deer Creek remains closed for the weekend. County Health Department personnel will review data on 7/25/2011 to determine whether to reopen Deer Creek.

Clean Harbors will install silt fencing in Deer Creek to reduce the amount of suspended solids from the failed

earthen berms that will enter Lake Michigan.

Clean Harbors will profile the soil and wastewater for off-site transport and disposal.

1.1.2.1 Location

Spill ocurred at 6100 Sawyer Road in Benton Harbor, Michigan.

1.1.2.2 Description of Threat

Caustic liquid spilled at truck stop and into strom sewer which emptied into Deer Creek.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

2. Current Activities
- **2.1 Operations Section**
- **2.2 Planning Section**
- **2.3 Logistics Section**
- **2.4 Finance Section**
- **2.5 Safety Officer**
- **2.6 Liaison Officer**
- **2.7 Information Officer**

3. Participating Entities
- **3.1 Unified Command**
- **3.2 Cooperating and Assisting Agencies**

4. Personnel On Site

5. Definition of Terms

6. Additional sources of information
- **6.1 Internet location of additional information/reports**
- **6.2 Reporting Schedule**

7. Situational Reference Materials

DEQ Department of Environmental Quality

MICHIGAN.GOV Michigan's Official Web Site

Spill-Release Reporting

Chemical releases in Michigan are potentially reportable under one or more of twenty-six different state and federal regulations. Determining which regulations apply to a specific release can be an overwhelming task. The "Release Notification Requirements in Michigan" table was compiled by the Michigan Department of Environmental Quality (MDEQ) Office of Environmental Assistance to help owners and operators of facilities in Michigan, including vehicles and farms, determine their potential notification and reporting requirements in the event of a chemical release. Check your permits, licenses, registrations, pollution prevention plans, and local ordinances for additional release reporting requirements.

Information

- Concentrated Animal Feeding Operations (CAFO)
- Release Reporting - Workshop Presentation
- Vehicle-Related Releases PDF
- Continuous Release Reporting
- Release Calculations PDF
- Federally Permitted Release
- Release Notification Requirements in Michigan Table PDF
- Release Reporting Forms
- Pollution Emergency Alerting System (PEAS) Information

Laws & Rules

- 49 CFR 172.101 - DOT Hazardous Materials Table for Transportation PDF
- Part 201 Rules
- 40 CFR 302 (July 2001 version)
- 40 CFR 355 - Emergency Planning and Notification (SARA Title III)
- 40 CFR 302 - Designation, Reportable Quantities, and Notification (CERCLA)
- Part 5 Rules of Part 31, Water Resources Protection PDF

Related Links

- Supervisor of Wells Instructions for Reporting Losses/Spills
- Radiological Protection Notices and Guidelines
- List of Lists, Consolidated List of Chemicals Subject to EPCRA and Clean Air Act 112(r)
- DEQ Locations
- Local Emergency Planning Committees PDF

Copyright © 2001-2011 State of Michigan

Key Topics

- Administrative Hearings
- Clean Michigan Initiative
- Community Right to Know
- Environmental Assistance
- Environmental Education
- **Environmental Emergencies**
  - Emergency Planning
  - Spill/Release Reporting
  - Land Cleanup
  - Reporting Air Quality Concerns
- Environmental Incentives
- Forms
- Environmental Reports
- Grants and Loans
- Laboratory Services
- Laws & Rules
- Locations of Environmental Interest
- Maps & Data
- Permits
- Policies and Procedures
- Pollutants and Toxicants
- Publications
- **About the DEQ**
- **Air**
- **Climate Change**
- **Land**
- **News and Events**
- **Pollution Prevention**
- **Waste**
- **Water**

Environmental Emergencies

- Environmental Emergencies

Call the Pollution Emergency Alerting System at 800-292-4706 immediately if you have had an emergency release to the environment.

Environmental emergencies are chemical substance releases that have the potential to harm the air, water, land, or life in the community. This website provides details on required release notification in Michigan, emergency planning requirements and plan development resources, site security, emergency response, and cleanup requirements.

Emergency Planning

Click here for: Emergency planning requirements for Local Emergency Planning Committees, facilities, and farms in Michigan.

Spill/Release Reporting

Click here for: All chemical release reporting requirements in Michigan.

Land Cleanup

Click here for: Environmental Emergencies Land Cleanup

Reporting Air Quality Concerns

Click here for: contact information to report air quality concerns

Copyright © 2001-2011 State of Michigan

FW: Request for RCRA permits --Clean Harbors Sawyer, MI Tanker Truck Explosion 0316000053/ILD005450697

Davison, Mike to: Diane Sharrow 03/07/2012 08:33 AM
Cc: "Purseglove, Paul", "Marvel, Todd"

From: "Davison, Mike" <Mike.Davison@Illinois.gov>
To: Diane Sharrow/R5/USEPA/US@EPA
Cc: "Purseglove, Paul" <Paul.Purseglove@illinois.gov>, "Marvel, Todd" <Todd.Marvel@Illinois.gov>

History: This message has been replied to.

2 attachments

Clean Harbors Recycling0316000053.pdf 0316000053 B121RM3.pdf

Diane,

Let me know if you need anything else.

Mike Davison
Illinois Environmental Protection Agency
Bureau of Land #24
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276
217-782-9295

-----Original Message-----
From: Foxworth, Ukanno
Sent: Wednesday, March 07, 2012 7:54 AM
To: Davison, Mike
Cc: Dragovich, Ted
Subject: RE: Request for RCRA permits --Clean Harbors Sawyer, MI Tanker Truck Explosion 0316000053/ILD005450697

Good morning Mike,

I have attached a the electronic version of Clean Harbors RCRA permits, document (B121RM3) is the permit for when the facility change ownership from Safety-Keen to Clean Harbors, and the other document is the latest current permit on file. I hope this information is what you where requesting.

Ukanno Foxworth
Environmental Protection Engineer
Disposal Alternative Unit - Permit Section Illinois Environmental Protection Agency Bureau of Land # 33
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
(217) 558-4717
(217) 524-3291 (Fax)
-----Original Message-----
From: Dragovich, Ted
Sent: Monday, March 05, 2012 11:50 AM
To: Foxworth, Ukanno

Cc: Davison, Mike
Subject: FW: Clean Harbors Sawyer, MI Tanker Truck Explosion
0316000053/ILD005450697

Ukanno,

I know that you are not that familiar with this site yet, but please work with Mike Davison and try to determine which modifications would contain the permit transfer. Mike can collect the documents. He needs to know what file they are in and what the log numbers are.

-----Original Message-----
From: Davison, Mike
Sent: Monday, March 05, 2012 11:42 AM
To: Dragovich, Ted
Subject: FW: Clean Harbors Sawyer, MI Tanker Truck Explosion
0316000053/ILD005450697

Ted,

Here is the document request from USEPA. See the portion addressed to Todd and Paul.

Thanks,

Mike

-----Original Message-----
From: Purseglove, Paul
Sent: Monday, March 05, 2012 11:00 AM
To: Davison, Mike
Subject: FW: Clean Harbors Sawyer, MI Tanker Truck Explosion

Mike can you take care of this request?

Paul M. Purseglove
Illinois EPA
Manager, Field Operations
Bureau of Land
1021 North Grand Avenue East
Springfield, IL 62794-9276
direct-217.524.5597 | cell-217.725.5432 | fax-217.524.1991
paul.purseglove@illinois.gov

-----Original Message-----
From: Diane Sharrow [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Monday, March 05, 2012 6:54 AM
To: Marvel, Todd; Purseglove, Paul; craigj@michigan.gov
Cc: Lorna Jereza; Mark Palermo
Subject: Fw: Clean Harbors Sawyer, MI Tanker Truck Explosion

Todd and Paul,

Would it be possible to obtain copies (electronic if possible) of all IEPA documents regarding the transfer of the permit from Safety Kleen to Clean harbors? As well as any documents submitted after the issuance of the permit regarding the facility waste analysis plan?

We are not certain that the USEPA Region 5 files contain hard copies of all this information.

We do have a copy of the Part A and Part B Permit application and what appears to be the permit issued by IEPA and the USEPA, but we want to make sure that these are the correct / official copies.

John,

Would it be possible to obtain copies of any documents that MDEQ may have regarding the issuance of a USEPA Identification Number to the Canadian transporter Marcus Trucking?

Thank you,

Your assistance is appreciated.

Diane M. Sharrow
Environmental Scientist/Senior Inspector USEPA, Region 5, Land and Chemicals Division RCRA Branch, Compliance Section 1 Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity.
To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

----- Forwarded by Diane Sharrow/R5/USEPA/US on 03/05/2012 06:46 AM -----

From: Diane Sharrow/R5/USEPA/US
To: todd.marvel@illinois.gov, paul.purseglove@illinois.gov, craigj@michigan.gov
Cc: Mark Palermo/R5/USEPA/US@EPA, Lorna Jereza/R5/USEPA/US@EPA
Date: 03/05/2012 06:46 AM
Subject: Clean Harbors Sawyer, MI Tanker Truck Explosion

John, Paul and Todd,

DOT's action against Clean harbors is attached.

It is public information.

Thank you,

Diane M. Sharrow
Environmental Scientist/Senior Inspector USEPA, Region 5, Land and Chemicals Division RCRA Branch, Compliance Section 1 Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit: http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

[attachment "Clean Harbors NOPV.pdf" deleted by Diane Sharrow/R5/USEPA/US]

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 503667739 SC PPW 3/1/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	ILD005450697	1	(800)483-3718	000039888 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773)247-2828

Generator's Site Address (if different than mailing address)
SAME

6. Transporter 1 Company Name: Harold Morcus Limited
U.S. EPA ID Number: MIT 270019321

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519)864-1021
U.S. EPA ID Number: MIN000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), 3, PG II	001	TT	04590	G	D001	D002	D004
						D005	D006	D007
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
[illegible]

Seal # 1311-1312 TRACT 546B TRL, 678

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK
Signature: Ronald A Pawlak
Month 07 Day 21 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): [signature]
Date leaving U.S.: 07-22-2011

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DARYL CALVANIK
Signature: [signature]
Month 07 Day 21 Year 11

Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H040			

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR / TRANSPORTER INT'L / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

TRANSPORTER'S COPY

SC3657730 SC PPW 3/3/2011

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 ID Number: ILD005450697
2. Page 1 of: 1
3. Emergency Response Phone: (800)483-3718
4. Manifest Tracking Number: 000039888 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773)247-2828

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Harold Marcus Limited
U.S. EPA ID Number: FCCANADA

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519)864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), 3, PG II	001	TT	04600	G	D001	D002	D004
						D005	D006	D007
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.CA-LEAN ERG#128

SEAL # 1311-1312 TRACT. 546B TRL, 678

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK
Signature:
Month 07 Day 21 Year 11

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DARYL CALVANK
Signature:
Month 07 Day 21 Year 11
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name:
Signature:
Month Day Year

GENERATOR / INTL / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste this manifest describes for:

RE: EPA Information Request and Clean Harbors Response
Haigh, Jeffery D
to:
Diane Sharrow
02/15/2012 10:42 AM
Cc:
Mark Palermo
Hide Details
From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>

To: Diane Sharrow/R5/USEPA/US@EPA

Cc: Mark Palermo/R5/USEPA/US@EPA

Diane:

These are the individuals who visited my client's facility. As far as the transporter Harold Marcus, I am not sure whether these individuals have been in contact with this entity.

1. Ted Turner, 2300 East Devon Avenue, Suite 478, Des Plaines, IL. 60018, Tel: 847-294-8590, mailto:ted.turner@dot.gov">ted.turner@dot.gov

2. Laura Kwilinski, 3401 Centerlake Drive, Suite 5508, Ontario, CA 91761, Tel:909-937-3279, mailto:Laura.Kwilimski@dot.gov">Laura.Kwilimski@dot.gov

On one or both these dates 7/27 and 7/28 these individuals where at my client's facility.

In other matters, my client is working on obtaining the additional information you requested in a previous email, a response will be forthcoming in the near future. Thereafter, we will be able to provide you with dates for the proposed meeting.

Please do not hesitate to call if I can be of any further assistance.

Sincerely,

Jeff

Jeffery D. Haigh, Esq.

Law Department
Clean Harbors Environmental Services Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: mailto:haigh.jeffery@cleanharbors.com"> haigh.jeffery@cleanharbors.com
Web: http://www.cleanharbors.com/">www.cleanharbors.com

From: Diane Sharrow [mailto:Sharrow.Diane@epamail.epa.gov]
Sent: Thursday, February 09, 2012 12:08 PM
To: Haigh, Jeffery D
Cc: Mark Palermo
Subject: Re: EPA Information Request and Clean Harbors Response

Thank you.

If at all possible, could Clean Harbors alo provide the names and telphone numbers of the DOT inspectors who conducted a site inspection at teh Chicagho facility as well?

Thank you again.

Diane M. Sharrow
Environmental Scientist/Senior Inspector
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Direct 312.886.6199
Facsimile 312.692.2906

Sharrow.Diane@epa.gov

PROTECT THE ENVIRONMENT:

Save paper & trees. Print this message only if necessary.

Protecting the environment is everyone's responsibility. Help USEPA fight pollution by reporting possible harmful environmental activity. To file a report, visit:
http:/www.epa.gov/compliance/complaints/index.html

CONFIDENTIALITY NOTICE: This e-mail may contain information from the sender that may be CONFIDENTIAL, LEGALLY PRIVILEGED, PROPRIETARY or OTHERWISE PROTECTED FROM DISCLOSURE. This e-mail is intended for use only by the person or entity to whom it is addressed. If you are not the intended recipient, any use, disclosure, copying, distribution, printing or any action taken in reliance on the contents of this e-mail, is strictly prohibited. If you received this e-mail in error, please contact the sending party by reply mail, delete the mail from your computer and shred any paper copies.

The information transmitted is intended only for the person or entity to which it is addressed and may contain

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 10 2012

REPLY TO THE ATTENTION OF:

LR-8J

CERTIFIED MAIL 7009 1680 0000 7660 6011
RETURN RECEIPT REQUESTED

Mr. Gary Malinowski
Facility Manager
Recycling Services Center
Clean Harbors RSC LLC
1445 West 42nd Street
Chicago, Illinois 60609

Re: Supplemental Information Request
Clean Harbors RSC LLC
EPA ID. NO.: ILD 005 450 697

Dear Mr. Malinowski:

By this letter, the U.S. Environmental Protection Agency (EPA) is issuing this Supplemental Information Request to you under Section 3007 of RCRA, 42 U.S.C. § 6927. Section 3007 authorizes the Administrator of EPA to require you to submit certain information. This Supplemental Information Request requires Clean Harbors RSC LLC (Clean Harbors or you) to submit certain information relating to the generation and management of hazardous wastes at the facility referenced above by EPA Identification Number, and located in Chicago, Illinois.

We are requiring this information to determine Clean Harbors' compliance status under Sections 3002 through 3006 of RCRA, 42 U.S.C. §§ 6922 through 6926, the regulations at 40 C.F.R. §§ 260-265, the requirements of the Illinois Administrative Code (IAC), and the requirements of the March 12, 2004, Hazardous Waste Permit, as amended, issued to Clean Harbors by the Illinois Environmental Protection Agency (Illinois EPA). EPA may use the submitted information in an administrative, civil, or criminal action.

The enclosure specifies the information you must submit. You must submit this information within **15 CALENDAR DAYS** of receiving this request to the United States Environmental Protection Agency, at the following address:

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

Diane M. Sharrow
Land and Chemicals Division
RCRA Branch
Compliance Section 1
77 West Jackson Boulevard, LR-8J
Chicago, Illinois 60604

The information must be provided notwithstanding its possible characterization as confidential information or trade secrets. You may, under 40 C.F.R. Part 2, Subpart B, assert a business confidentiality claim covering all or part of the information in the manner described in 40 C.F.R. § 2.203(b). We will disclose the information covered by a business confidentiality claim only to the extent and by means of the procedures at 40 C.F.R. Part 2, Subpart B. You must make any request for confidentiality when you submit the information since any information not so identified may be made available to the public without further notice.

Under Section 3008 of RCRA, 42 U.S.C. § 6928, and 40 C.F.R. Part 19, EPA is authorized to seek civil penalties of up to $37,500 per day against Clean Harbors for failing or refusing to submit all of the information specified in this Supplemental Information Request. Further, under 18 U.S.C. § 1001, Clean Harbors may be fined or imprisoned for up to five years for knowingly or willfully: (1) falsifying, concealing, or covering up a material fact; (2) making any material false, fictitious, fraudulent statement or representation; or (3) making or using any false writing or document knowing it contains any materially false, fictitious, or fraudulent statement.

Clean Harbors must submit all information specified in this Supplemental Information Request under the signature of an authorized representative certifying that the information is true and complete to the best of the signatory's knowledge and belief. Should the signatory find, at any time after submitting the requested information, that any portion of the submitted information is false, misleading, or incomplete, the signatory must immediately notify Ms. Sharrow at the above address.

This Supplemental Information Request is not subject to the Paperwork Reduction Act, 44 U.S.C. §§ 3501 *et seq.*, because it seeks collection of information from specific individuals or entities as part of an administrative action or investigation.

You should direct questions about this Supplemental Information Request to Diane Sharrow at (312) 886-6199.

Sincerely,

Lorna M. Jereza, Chief
Compliance Section 1

Enclosure

cc: Todd.Marvel@illinois.gov
CraigJ@michigan.gov

INFORMATION REQUEST

Instructions:

Each item of this Information Request refers and relates to Clean Harbors RSC LLC (Clean Harbors or you) and/or its facility located at 1445 West 42nd Street, Chicago, Illinois 60609 (the facility). You must respond separately to each item of this Information Request. Precede each response with the number of the Information Request item to which it corresponds. For each document produced in response to this Information Request, specify on the document, or in some other reasonable manner, the number of the item to which it responds.

Definitions:

The following definitions apply to this Information Request. The following definitions have been taken from the Illinois Administrative Code Part 702, *et seq*. Corresponding federal definitions may be found in the Code of Federal Regulations, 40 C.F.R. § 260.10.

1. "**Authorized representative**" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent, or person of equivalent responsibility.

2. "**Certification**" means a statement of professional opinion based upon knowledge and belief.

3. "**Facility personnel**" mean all persons who work at, or oversee the operations of, a hazardous waste facility, and whose actions or failure to act may result in noncompliance.

4. "**Operator**" means the person responsible for the overall operation of a facility.

4. "**Owner**" means the person that owns a facility or part of a facility.

5. "**Person**" means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state, or any interstate body.

6. "**Personnel**" or "**facility personnel**" means all persons who work at or oversee the operations of a hazardous waste facility and whose actions or failure to act may result in noncompliance with 35 Ill. Adm. Code § 724 or 725.

7. "**RCRA**" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 *et seq.*).

Items of Request:

1. Identify all persons consulted in preparing the answers to this Request for Information.

2. Provide the full name and title for each person identified in response to Item 1.

3. Provide the tank number(s) of any tank or tanks used for waste NaOH storage on July 21, 2011.

4. Provide the tank number(s) of any tank or tanks used for waste MEK storage.

5. Provide a copy of the Material Transfer Logs for Tank T-148 from July 1, 2011 until July 31, 2011.

6. Provide the name(s) and title(s) of staff that compared analytical report samples to waste material profile sheets for Ca-Lean or CA-Lean from July 1, 2011 to July 31, 2011.

7. Provide a copy of the signed and dated Ca-Lean or CA-Lean profile dated July 21, 2011.

8. Provide a detailed explanation of how NaOH is utilized in the recovery of MEK at the facility, if at all.

9. Provide a complete copy of the "3-ring binder" provided by Randy Badiuk of Harold Marcus Limited and Mark Shreve of Gran Lucow Miller P.C. to Jeffery Haigh of Clean Harbors on August 10, 2011.

10. Provide a copy of the land disposal restriction notification or certification prepared for the shipment specified on the Uniform Hazardous Manifest (Tracking) Number 000039888 MWI on July 21, 2011.

11. Provide a copy of the EPA Acknowledgement of Consent to the shipment required to accompany the hazardous shipment and required to be attached to the Uniform Hazardous Manifest (Tracking) Number 000039888 MWI on July 21, 2011.

12. Specify whether the EPA Acknowledgement of Consent to the shipment required to accompany the hazardous shipment and required to be attached to the Uniform Hazardous Manifest (Tracking) Number 000039888 MWI on July 21, 2011 was attached when the shipment left the facility.

13. Provide an explanation of what placards, if any, Clean Harbors placed on the hazardous material or offered to Harold Marcus Limited as the transporter of the hazardous material on July 21, 2011.

14. Provide the name(s) and title(s) of staff who observed the loading of T-148 on July 21, 2011.

15. Provide the name(s) and title(s) of staff who supervised the loading of the T-148 on July 21, 2011.

16. Provide the name(s) and title(s) of staff who loaded T-148 on July 21, 2011.

17. Specify whether T-148 was going to Sarnia, Ontario, Canada or Corunna, Ontario, Canada.

18. Specify whether the waste material in T-148 was to be recovered or incinerated.

19. Provide the date and time that the driver for Harold Marcus Limited called the Emergency Response Number provided in Item 3 on the Uniform Hazardous Manifest (Tracking) Number 000039888 MWI on July 21, 2011.

20. Provide a dated copy of the waste analysis plan in place at the facility on July 21, 2011.

21. Specify whether the waste material placed in T-148 was generated solely at the facility or whether it contained waste from off-site.

22. Provide the following certification by a responsible corporate officer:

I certify under the penalty of law that I have examined and am familiar with the information submitted in responding to this information request for production of documents. Based on my review of all relevant documents and inquiring of those individuals immediately responsible for providing all relevant information and documents, I believe that the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

_____ _____

Date Signature of Corporate Officer, Title

RE: Supplemental Response
Haigh, Jeffery D
to:
Mark Palermo
01/28/2013 02:43 PM
Cc:
Diane Sharrow
Hide Details
From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA,
Cc: Diane Sharrow/R5/USEPA/US@EPA

CH

Mark & Diane,

1. Are these copies of the manifests as provided to the transporter at the point of pick-up of the waste from the Chicago facility?

Answer 1: The copies of the manifests provided are copies as received from the destination facility with the exception of Manifest 000039888 MWI which was the manifest for the material involved in the release. This manifest never made it to the destination facility so that copy is as provided to the transporter at the time of pick up.

2. Was the information in Box #14 typed in at the Chicago facility prior to providing to the transporter or was that information filled in at the Michigan facility?

Answer 2: Information on profile numbers, ERG numbers, Seal Numbers, Tract. number and TRL numbers were on the manifest at the Chicago facility. AOC numbers, CN numbers and the statement "CHESI, EPA ID No. MIR000014530, IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR" was added at the Michigan facility.

3. Was there an export acknowledgement of consent document attached to the manifest at any point of the transport process for these shipments and if so was it attached before leaving the facility in Chicago or attached in Michigan?

Answer 3: The export acknowledgement of consent was attached to each manifest at the Michigan facility with the exception of the shipment that had the release before reaching the Michigan facility.

I hope this answers your query, if you additional information please let me know – thanks.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com

Web: www.cleanharbors.com

CH Logo_RED_rgb

From: Palermo.Mark@epamail.epa.gov [mailto:Palermo.Mark@epamail.epa.gov]
Sent: Wednesday, January 23, 2013 8:12 AM
To: Haigh, Jeffery D
Cc: Sharrow.Diane@epamail.epa.gov
Subject: Re: Supplemental Response

Jeff: Thanks so much for this information. We had some follow-up questions.

1. Are these copies of the manifests as provided to the transporter at the point of pick-up of the waste from the Chicago facility?

2. Was the information in Box #14 typed in at the Chicago facility prior to providing to the transporter or was that information filled in at the Michigan facility?

3. Was there an export acknowledgement of consent document attached to the manifest at any point of the transport process for these shipments and if so was it attached before leaving the facility in Chicago or attached in Michigan?

Thank you, Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

"Haigh, Jeffery D" ---01/21/2013 02:14:05 PM---Mark & Diane, Please see attached and let me know if you need any additional information, as always

From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA, Diane Sharrow/R5/USEPA/US@EPA,
Date: 01/21/2013 02:14 PM
Subject: Supplemental Response

Mark & Diane,

Please see attached and let me know if you need any additional information, as always there is no requirement for a formal written letter a simply email will suffice.

Thanks again for your cooperation.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can
rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED
****

[attachment "Cor-EPA 1-21-13.pdf" deleted by Mark Palermo/R5/USEPA/US]
[attachment "Manifest Shipments 7-1-2011 to 7-31-2011.pdf" deleted by Mark Palermo/R5/USEPA/US]

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
  image001.jpg
which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

Re: Supplemental Response
Mark Palermo to: Haigh, Jeffery D 01/23/2013 07:12 AM
Cc: Diane Sharrow

From: Mark Palermo/R5/USEPA/US
To: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>,
Cc: Diane Sharrow/R5/USEPA/US@EPA

Jeff: Thanks so much for this information. We had some follow-up questions.

1. Are these copies of the manifests as provided to the transporter at the point of pick-up of the waste from the Chicago facility?

2. Was the information in Box #14 typed in at the Chicago facility prior to providing to the transporter or was that information filled in at the Michigan facility?

3. Was there an export acknowledgement of consent document attached to the manifest at any point of the transport process for these shipments and if so was it attached before leaving the facility in Chicago or attached in Michigan?

Thank you, Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

"Haigh, Jeffery D" Mark & Diane, Please see attached and let me k... 01/21/2013 02:14:05 PM

From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA, Diane Sharrow/R5/USEPA/US@EPA,
Date: 01/21/2013 02:14 PM
Subject: Supplemental Response

Mark & Diane,

Please see attached and let me know if you need any additional information, as always there is no requirement for a formal written letter a simply email will suffice.

Thanks again for your cooperation.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149

Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program could
contain a computer virus which could cause harm to EPA's computers,
network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced
into the EPA network. EPA is deleting all computer program attachments
sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you
should contact the sender and request that they rename the file name
extension and resend the Email with the renamed attachment. After
receiving the revised Email, containing the renamed attachment, you can
rename the file extension to its correct name.

For further information, please contact the EPA Call Center at
(866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

[attachment "Cor-EPA 1-21-13.pdf" deleted by Mark Palermo/R5/USEPA/US] [attachment "Manifest Shipments 7-1-2011 to 7-31-2011.pdf" deleted by Mark Palermo/R5/USEPA/US]

Supplemental Response
Haigh, Jeffery D
to:
Mark Palermo, Diane Sharrow
01/21/2013 02:14 PM
Hide Details
From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA, Diane Sharrow/R5/USEPA/US@EPA,

History: This message has been forwarded.

2 Attachments

Cor-EPA 1-21-13.pdf Manifest Shipments 7-1-2011 to 7-31-2011.pdf

Mark & Diane,

Please see attached and let me know if you need any additional information, as always there is no requirement for a formal written letter a simply email will suffice.

Thanks again for your cooperation.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

CH Logo_RED_rgb

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
image001.jpg

which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

Clean Harbors
42 Longwater Drive
P.O. Box 9149
Norwell, MA 02061-9149
www.cleanharbors.com

Jeffery D. Haigh, Esq.
haigh.jeffery@cleanharbors.com
(P) 781-792-5135
(F) 781-792-5903

January 18, 2013

Mark J. Palermo
Associate Regional Counsel
USEPA, Region 5, Land and Chemicals Division
RCRA Branch, Compliance Section 1
Mail Code LR-8J
77 W. Jackson Blvd.
Chicago, IL 60604

Re: Response to Notice of Violation
Clean Harbors Recycling Services Center
EPA ID: ILD 005 450 697

Dear Mark:

By e-mail correspondence dated December 18, 2012, the EPA requested copies of manifests prepared for any shipments of RCRA hazardous waste intended for export from the Clean Harbors Recycling Services of Chicago facility between July 1 and July 31, 2011. There were 5 shipments during this period summarized below:

Date	Manifest #
7/14	000039884MWI
7/15	000039885MWI
7/21	000039887MWI
7/21	000039888MWI
7/28	000039894MWI

Copies of the referenced manifests are provided as an attachment to this letter. Should you have any further questions, please do hesitate to contact me. Thank you for your assistance with this matter.

Sincerely,

Jeffery D. Haigh

SC3643442 SC PPW 3/3/2011

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 ID Number: ILD005450697
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 000039884 MWI

5. Generator's Name and Mailing Address: Clean Harbors Recycling Services of Chicago, LLC, 1445 W 42nd Street, Chicago, IL 60609
Generator's Site Address (if different than mailing address): SAME
Generator's Phone: (773) 247-2828
U.S. EPA ID Number: MIT270012321

6. Transporter 1 Company Name: Harold Marcus Limited
U.S. EPA ID Number: ~~FCGANADA~~

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Canada Inc, 4090 Telfer Road RR #1, Corunna, ON N0N 1G0
U.S. EPA ID Number: MIR000035204
Facility's Phone: (519) 864-1021

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	001	TT	04900	G	D001	D004	D005
						D006	D007	D008
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information: 1.5U-FUELS ERG#128 AOC#972/7E/10 CN# LP75516-2
CHESI,EPA ID NO.MIR000014530,IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
SEAL # 1386-1387 TRACT. 571B TRL. 686

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK
Signature: Ronald A Pawlak
Month 07 Day 14 Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Port Huron MI
Transporter signature (for exports only): Date leaving U.S.: 7-15-11

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: GARY ROBINSON
Signature:
Month 07 Day 14 Year 11
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: DEBBIE HARRISON
Signature: Debbie Harrison
Month 07 Day 15 Year 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)**

SC3645103 SC PPW 3/3/2011

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 ID Number: ILD005450697
2. Page 1 of: 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 000039885 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773) 247-2828

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
x	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	001	TT	04900	G	D001	D004	D005
						D006	D007	D008
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1. SU-FUELS ERG#128 AOC#972/7E/10 CN#LP46811-3
CHESI,EPA ID NO.MIR000014530,IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
SEAL # 1388-1389 TRACT. 88015 TRL 41525

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 07 Day 15 Year 11

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: PORT HURON, MI
Transporter signature (for exports only): [signature] Date leaving U.S.: 7/15/11

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: MIKE MANS — Signature: [signature] — Month 07 Day 15 Year 11
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Nicole Fan — Signature: [signature] — Month 07 Day 18 Year 11

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

SC3656763 SC PPW 3/3/2011

Form Approved. OMB No. 2050-0039

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: ILD005450697
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 000039887 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773) 247-2828

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Harold Marcus Limited — U.S. EPA ID Number: FCCANADA

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	001	TT	05000	G	D001 D004 D005 D006 D007 D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1.5U-FUELS ERG#128 AOC#972/7E/10 CN# LP755-18-8
CHESI, EPA ID NO. MIR000014530 IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
Seal # 1325-1326 TRACT. 556 TRC. 683

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 07 Day 21 Year 11

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Port Huron MI
Transporter signature (for exports only): X Bill Wallis Date leaving U.S.: 7-22-11

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: WILLIAM WALLIS — Signature: Bill Wallis — Month 07 Day 21 Year 11
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Debbie Harrison — Signature: Debbie Harrison — Month 07 Day 22 Year 11

GENERATOR — TRANSPORTER — INT'L — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

5C3657730 5C PFW 3/3/2011

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 ID Number: ILD005450697
2. Page 1 of: 1
3. Emergency Response Phone: (800)483-3718
4. Manifest Tracking Number: 000039888 MWI

5. Generator's Name and Mailing Address: Clean Harbors Recycling Services of Chicago, LLC, 1445 W 42nd Street, Chicago, IL 60609
Generator's Phone: (773) 247-2828

Generator's Site Address (if different than mailing address): SAME
MIT 2700 2321

6. Transporter 1 Company Name: Herald Marous Limited
U.S. EPA ID Number: ~~FSCANA3A~~

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Canada Inc, 4090 Telfer Road RR #1, Corunna, ON N0N 1G0
Facility's Phone: (519)864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes		
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (METHYL ETHYL KETONE), 3, PG II	001	TT	04600	G	D001	D002	D004
						D005	D008	D007
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1.CA-LIAN ERG#128

SEAL # 1311-1312 TRACT. 546B TRL. 678

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK
Signature: Ronald A Pawlak
Month 07 Day 21 Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.: 07-22-2011

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DARYL CALVANN
Signature:
Month 07 Day 21 Year 11

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

SC3671988 SC PPW 3/3/2011

Please print or type. (Form designed for use on elite (#2-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: ILD005450697
2. Page 1 of 1
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 000039894 MWI

5. Generator's Name and Mailing Address
Clean Harbors Recycling Services of Chicago, LLC
1445 W 42nd Street
Chicago, IL 60609
Generator's Phone: (773) 247-2828

Generator's Site Address (if different than mailing address): SAME

6. Transporter 1 Company Name: Clean Harbors Environmental Services Inc — U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada Inc
4090 Telfer Road RR #1
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S., (TETRAHYDROFURAN), 3, PG II	001	TT	05050	G	D001 D004 D005 D006 D007 D008
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
AOC#972/7E/10 CN# RE509543
1. SU-FUELS ERG#128
CHESI, EPA ID.NO.MIR000014530, IS ACTING AS THE PRIMARY EXPORTER ON BEHALF OF THE GENERATOR.
SEAL # 1294-1295 TRACT 1607 TRL 41522

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD A PAWLAK — Signature: Ronald A Pawlak — Month 07 Day 28 Year 11

INT'L

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: PORT HURON, MI
Transporter signature (for exports only): Date leaving U.S.: 07-29-11

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DAVE MATOUSEK — Signature — Month 07 Day 28 Year 11
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: DEBBIE HARRISON — Signature: Debbie Harrison — Month 07 Day 29 Year 11

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

RE: Clean Harbors RSC RCRA matter
Haigh, Jeffery D
to:
Mark Palermo
12/21/2012 08:11 AM
Cc:
Diane Sharrow
Hide Details
From: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>
To: Mark Palermo/R5/USEPA/US@EPA,
Cc: Diane Sharrow/R5/USEPA/US@EPA

Mark & Diane,

Thanks again for meeting with us, I hope it was as informative for you as it was for us. We are working on obtaining that information and when assembled will forward it along.

Happy Holidays.

Jeff

Jeffery D. Haigh, Esq.
Law Department
Clean Harbors Inc.
42 Longwater Drive
PO Box 9149
Norwell, MA 02061-9149
Office: 781.792.5135
Mobile: 781.853.7254
Email: haigh.jeffery@cleanharbors.com
Web: www.cleanharbors.com

CH Logo_RED_rgb

From: Palermo.Mark@epamail.epa.gov [mailto:Palermo.Mark@epamail.epa.gov]
Sent: Tuesday, December 18, 2012 9:25 AM
To: Haigh, Jeffery D
Cc: Sharrow.Diane@epamail.epa.gov
Subject: Clean Harbors RSC RCRA matter

Jeff: It was a pleasure meeting you at our meeting on December 6th. As a follow-up to that meeting, EPA requests copies of manifests prepared for any shipments of RCRA hazardous waste intended for export from the Clean Harbors Recycling Services of Chicago facility between July 1 and July 31, 2011. We understand, given the Holidays, if these documents can not be provided to us until after the New Year.

Thank you and Happy Holidays!

Mark

Mark J. Palermo

Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact Clean Harbors Environmental Services at 781.792.5555 and delete the material from any computer.

********** ATTACHMENT NOT DELIVERED **********

This Email message contained an attachment named
image001.jpg
which may be a computer program. This attached computer program could contain a computer virus which could cause harm to EPA's computers, network, and data. The attachment has been deleted.

This was done to limit the distribution of computer viruses introduced into the EPA network. EPA is deleting all computer program attachments sent from the Internet into the agency via Email.

If the message sender is known and the attachment was legitimate, you should contact the sender and request that they rename the file name extension and resend the Email with the renamed attachment. After receiving the revised Email, containing the renamed attachment, you can rename the file extension to its correct name.

For further information, please contact the EPA Call Center at (866) 411-4EPA (4372). The TDD number is (866) 489-4900.

********** ATTACHMENT NOT DELIVERED **********

Clean Harbors RSC RCRA matter

Mark Palermo to: Haigh, Jeffery D 12/18/2012 08:24 AM
Cc: Diane Sharrow

From: Mark Palermo/R5/USEPA/US
To: "Haigh, Jeffery D" <haigh.jeffery@cleanharbors.com>,
Cc: Diane Sharrow/R5/USEPA/US@EPA

Jeff: It was a pleasure meeting you at our meeting on December 6th. As a follow-up to that meeting, EPA requests copies of manifests prepared for any shipments of RCRA hazardous waste intended for export from the Clean Harbors Recycling Services of Chicago facility between July 1 and July 31, 2011. We understand, given the Holidays, if these documents can not be provided to us until after the New Year.

Thank you and Happy Holidays!

Mark

Mark J. Palermo
Associate Regional Counsel
U.S. EPA Region 5
(312) 886-6082

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) SC PFW 8/3/2011 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: ILD005460897
2. Page 1 of 1
3. Emergency Response Phone: (800)483-9715
4. Manifest Tracking Number: 0000039888 MWI

5. Generator's Name and Mailing Address: Clean Harbors Recycling Services of Chicago, LLC, 1445 W 42nd Street, Chicago, IL 60609
Generator's Site Address (if different than mailing address): SAME
Generator's Phone: (773)847-4838
U.S. EPA ID Number: ILD 980613321

6. Transporter 1 Company Name: Harold Marcus Limited
U.S. EPA ID Number:

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Clean Harbors Canada Inc, 2020 Talbot Road RR #1, Corunna, ON N0N 2W0
U.S. EPA ID Number: MTN000055204
Facility's Phone: 1-519-862-4002

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit WT./Vol.	13. Waste Codes
X	1. UN1993, WASTE FLAMMABLE LIQUIDS, N.O.S. (METHYL ETHYL KETONE), 3, PG II	001	TT	04000	G	D001 D002 D004 D005 D006 D007
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
4-1-2-1-1-1-1-1 BM4125

Cert # 1311-1312 Tract 546B Tnl. 678

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: RONALD CARMAN
Signature: Ronald Carman
Month 07 Day 22 Year 11

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.: 07-22-2011

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: DAVID CALVARK
Signature:
Month 07 Day 22 Year 11

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR — TRANSPORTER — INT'L — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **TRANSPORTER'S COPY**