U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: M/S AT-093

MAR 22 1988

Kermit M. Rudolf
Corporation Counsel
Gonzaga University
Spokane, Washington 99258-0001

Re: Docket Number 1087-03-16-2615
Toxic Substances Control Act (TSCA)

Dear Mr. Rudolf:

Thank you for your letter of February 22, 1988, which enclosed a certification of compliance with the conditions of the Consent Agreement and Final Order under the above case.

We have reviewed your certification and are satisfied that Gonzaga has complied with all of the terms of the Consent Agreement and Final Order. We appreciate the efforts of Gonzaga University in this matter and are pleased at the environmental results we feel have been achieved.

If you have any further questions, please contact Bill Hedgebeth at (206) 442-7369.

Sincerely,

Gil Haselberger, Chief
Toxic Substances Section

cc: Charles J. Murphy, Vice President
Kenneth Sammons, Director University Services

GONZAGA UNIVERSITY

February 22, 1988

RECEIVED
FEB 24 1988
OFFICE OF REGIONAL COUNSEL
EPA - REGION X

RECEIVED
MAR 14 1988
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

Mr. Richard Mednick
Assistant Regional Counsel
Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, Washington 98101

Re: Your file no. SO-125
In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Mednick:

Enclosed is the certification required of Gonzaga University pursuant to Paragraph 11D of the Consent Agreement and Final Order.

It is Gonzaga's belief that it now has fully performed and complied with Paragraphs 11B and 11C of the Consent Agreement and Final Order and accordingly, that Gonzaga now is entitled to remission of the balance of the assessed civil penalty.

The requirements of Paragraph 11A previously were complied with, entitling Gonzaga at that time to remission of $20,000 of the assessed civil penalty.

It is our intention, of course, to fully comply with the terms of the Order, including compliance within the time periods specified. It is requested, therefore, that the enclosed certification be reviewed by you immediately and if you believe that anything further is required, would you or Mr. Hedgebeth please telephone either Mr. Sammons or myself concerning this matter. Thank you again for your cooperation.

Yours respectfully,

Kermit M. Rudolf
Corporation Counsel
Gonzaga University

KMR:ch
Enc.

cc: Charles J. Murphy, Vice President
Kenneth Sammons, Director University Services

SPOKANE, WASHINGTON 99258-0001 • (509) 328-4220

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF:	)	
	)	Docket No. 1087-03-16-2615
GONZAGA UNIVERSITY,	)	
	)	CERTIFICATE OF COMPLIANCE WITH CONDITIONS
Respondent.	)	OF CONSENT AGREEMENT AND FINAL ORDER
	)	

Gonzaga University, acting by its Director of University Services, hereby certifies that it has complied with and performed all actions and conditions of Paragraph 11 of the Consent Agreement and Final Order entered August 27, 1987 in the above-entitled matter.

This Certificate specifically covers the following items:

A. That pursuant to Paragraph 11A the six listed PCB transformers have been properly removed and disposed of in accordance with 40 C.F.R. 761.60. Copies of the disposal manifest and of the certificates of disposal for the six transformers heretofore have been furnished EPA.

B. That the outreach program described in Paragraph 11B and C has been developed, implemented and completed and this certification is made pursuant to Paragraph 11D, with details as follows:

(1) Attached hereto and by this reference made a part of this Certificate is a document entitled "EPA Summary Report", which gives the chronology of all steps taken by Gonzaga University in the development and implementation of the outreach program.

(2) A list of 35 "primary metered" customers of Washington Water Power was developed. Review of these 35 entities revealed that 26 had either identified and controlled or replaced transformers, had transformers which actually were owned by WWP, or had transformers whose PCB content was under 500 ppm. Of the other nine entities, for all entities except one, the entities owning the transformers have taken steps to test their transformers, and are (or soon will be) replacing the PCB transformers, if they have any.

(a) There is one entity which possibly has PCB transformers but which has not as yet taken action to identify and correct the problem if one exists. Testing, when done, may disclose that the entity has no problem. The company in question has had plans to sell its plant, which is idle, and consequently it had not yet investigated the PCB situation at the time of our last contact.

(b) Although the University's assistance was offered to each, none of the nine entities referred to above has requested any additional assistance from the University.

(c) For four of the entities referred to above, the testing and replacement, if required, will be phased as funding permits.

(d) Three of the entities referred to above are currently negotiating bids for transformer replacement this spring and summer.

(3) The Spokane Fire Department has no formal program for the registration of PCB transformers, but accepts notifications, in letter form, from entities having PCB transformers. These letters routinely are placed in the "hazardous materials" file which is kept in the Department's hazardous materials response vehicle for reference purposes in the course of a fire or emergency call. The Fire Department also maintains a test kit in the hazardous materials response vehicle so that if a spill is encountered, the Fire Department personnel can test for PCBs immediately.

Dated this 22d day of February, 1988.

Kenneth Sammons by Charles J. Murphy
Vice President for Finance

KENNETH SAMMONS
Director, University Services
Gonzaga University

EPA SUMMARY REPORT

The following actions were taken to comply with the agreement between the U. S. Environmental Protection Agency and Gonzaga University resulting from an investigation of PCB materials on campus.

Date	Action Taken
Spring 1987	Worked with Washington Water Power Company to identify entities with PCB transformers. Out of 35 identified entities, 26 had either controlled or replaced transformers, were WWP-owned, or had transformers whose PCB content was under 500 ppm. The status of the remaining 9 entities was undetermined.
February 10, 1987	Notified Spokane Fire Department of schedule to remove from service (on February 16) three PCB transformers located at Crosby Library and one PCB transformer in storage.
February 16, 1987	Transformers removed from service as noted above.
March 10, 1987	General Electric transported above-noted PCB transformers from Gonzaga University to General Electric.
March 19, 1987	Notified Spokane Fire Department of change in status of above-noted transformers.
March 25, 1987	General Electric transported PCB transformers for disposal.
April 10, 1987	Three PCB transformers at Madonna taken out of service.
May 11, 1987	PCB-contaminated transformers located at Student Union Building were drained and refilled.
May 13, 1987	Transformers from Madonna were transported by General Electric. Oil from transformers to be drained and refilled was picked up by General Electric.
May 14, 1987	Notified Spokane Fire Department of status of Madonna transformers.
June 23, 1987	Certification from General Electric that PCB transformers from Madonna had been transported for disposal.
July 2, 1987	General Electric shipped PCB liquid for disposal.
July 8, 1987	Certification from General Electric that PCB transformers from Crosby Library and storage had been transported for disposal.

Date	Action Taken
August 6, 1987	General Electric shipped drums for disposal.
August 19, 1987	Certification from General Electric that transformers at Student Union Building had been drained and refilled.
Fall 1987	Collected information for possible use in PCB information packet to be sent to entities with unresolved PCB transformer problems.
October 19-29, 1987	Organized, printed and assembled information packets for distribution to 13 identified entities including four contacts. The packets contained 10 pieces of informational material.
October 30, 1987	Mailed out information packets. One packet was returned with "addressee unknown" and was mailed again to a Houston address. The corporate office has since moved to Dallas, Texas.
December 7, 1987	Contacted Battalion Chief Joe Stapleton of the Spokane Fire Department regarding the department's PCB program (identifying, registering, and controlling PCBs).
December 15, 1987	Received letter from Chief Stapleton outlining current training for department personnel. Forwarded copy of letter to Bill Hedgebeth at EPA.
January 5, 1988	Follow-up with Chief Stapleton to see if any transformers had been identified and registered with the Spokane Fire Department since May 1986. One had been registered (July 1987) but Gonzaga was already aware of its existence. Apparently none had been registered as a result of our information packet mailing.
January 8, 1988	Contacted Ralph Shannon at WWP to see if someone had registered a transformer with WWP. None had.
January 8, 1988	Two information packets were sent to one additional entity as a result of conversation with Ralph Shannon.
January 8, 1988	Gonzaga University had three retrofilled transformers retested by General Electric to verify that their PCB content was now below 50 ppm. We are awaiting test results.
January 19, 1988	Contacted Bill Hedgebeth at EPA to determine what actions remained to be taken to comply with the Agreement. Three items were identified:

Date	Action Taken
	1. Obtain further information from the Spokane Fire Department on registering PCBs (how they get registered and the department's registration form).
	2. Make follow-up phone calls to each entity receiving information packet.
	3. Prepare and send summary report to EPA.
January 26, 1988	Contacted Chief Stapleton. The Fire Department has no set procedure for registering PCBs; there is no registration form, and the department does not routinely send out anything. Rather, the department will receive a letter from an entity stating it has a PCB transformer. The letter in turn goes into a hazardous materials file which is kept in the emergency vehicle for reference on a call. The department also keeps test kits on the emergency vehicle in the event a spill is reported so they can test for PCBs immediately.
January 26, 1988	Sent additional information packet to one entity contacted who did not recall having received first mailing.
January 27, 1988	Talked with Fire Marshall Gary Miller regarding inspection process. At this time he has no plans to include PCB registration as part of the process. He accepts notification from entities with transformers and advises the emergency vehicles of potential dangers.
January 25-29, 1988	Follow-up calls made to each entity which was sent information packet. In all but one case, the entity has identified and has corrected or will correct the PCB problem if one existed. The one remaining entity had not done anything because the company had plans to sell the property and had not checked into the situation.

GONZAGA UNIVERSITY

December 15, 1987

Mr. William M. Hedgebeth
Environmental Protection Specialist
Toxic Substances Section
U.S. Environmental Protection Agency
1200 - 6th Avenue
AT-093
Seattle, WA 98101

Dear Bill:

In accordance with Gonzaga University's agreement with the Environmental Protection Agency, we have been in contact with the Spokane Fire Department regarding their program on PCBs.

Enclosed is a letter from Chief Stapleton outlining their most recent activities in conjunction with the Washington Water Power Company.

If you need more information, please contact me.

Sincerely,

Kenneth R. Sammons

Kenneth R. Sammons
Director
University Services

KRS:kjh

enc.

DEC 17 1987
PESTICIDES & TOXIC SUBSTANCES BRANCH
EPA REGION 10

SPOKANE, WASHINGTON 99258 • (509) 328-4220

SPOKANE FIRE DEPARTMENT

PAUL J. OLSEN
Chief

WEST 44 RIVERSIDE • SPOKANE, WASHINGTON 99201 • (509) 456-2694

December 7, 1987

Karen Hicks
Gonzaga University
E. 502 Boone
Spokane, WA 99201

Karen,

The Spokane Fire Department's Hazardous Materials Team has just completed a 3-hour training session on emergency response to PCB incidents. The Washington Water Power Company furnished 4 instructors qualified in the fire safety field, environmental engineering, material handling, and a Spokane division plant engineer.

This class included:

1. Procedures in responding to a possible PCB incident.
2. Protective clothing and breathing apparatus worn at a suspected incident.
3. Proper spill and leak containment procedures.
4. Field testing for PCB's.
5. Proper disposal of PCB contaminated oils.
6. Proper notification for assistance from WWP in disposal process.

NOTE: Our Hazardous Materials Team has test kits to determine (on site) if we have PCB products involved. We also carry a list of known PCB transformers in the area, but we realize that list is not complete.

Please contact me if any assistance or more information is needed.

Sincerely,

Joe Stapleton

Joe Stapleton, Battalion Chief
Spokane Fire Department
W. 44 Riverside
Spokane, WA 99201

GONZAGA UNIVERSITY

RECEIVED
NOV 06 1987
SUBSTANCES
EPA REGION 10

October 30, 1987

To Potential PCB Users:

Colleges, universities, and other private entities are being inspected by the U.S. Environmental Protection Agency (EPA) for compliance with regulations governing toxic substances, specifically PCBs (polychlorinated biphenyls). Failure to comply with these regulations may result in financial penalties. As a result of such an inspection, Gonzaga University was cited for non-compliance and levied a penalty. In a settlement with EPA, Gonzaga University has agreed to initiate an outreach program in the Spokane area, to provide information and serve as a resource for local entities on this subject matter.

The enclosed materials have been compiled to assist you in complying with EPA's regulations and requirements. By familiarizing yourself with this data, and proceeding accordingly, you may avoid penalties for non-compliance by your entity.

If you have questions, please feel free to contact me at 328-4220, extension 6139, or Ken Sammons, Director of University Services at extension 6145.

Sincerely,

Charles J. Murphy
Vice President for Finance
Gonzaga University

enc.

CJM:kjh

SPOKANE, WASHINGTON 99258 • (509) 328-4220

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

OCT 9 1987

REPLY TO
ATTN OF: SO-125

Charles J. Murphy
Vice President of Finance
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258-0001

Re: Docket No. 1087-03-16-2615

Dear Mr. Murphy:

Enclosed is a conformed copy of a Partial Satisfaction of Order regarding the actions completed and penalty payment made in conformance with the Consent Agreement and Final Order entered in the above-referenced matter.

Thank you for your continued cooperation and effort in this matter.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

cc: Hearing Clerk (w/orig. encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF: GONZAGA UNIVERSITY, Respondent.	Docket No. 1087-03-16-2615 PARTIAL SATISFACTION OF ORDER

RICHARD MEDNICK, Attorney for Complainant, the Environmental Protection Agency (EPA), in the above-entitled matter, hereby acknowledges that Respondent has paid a penalty of $2,500.00 and completed the actions required by paragraph 11(A) of the Consent Agreement and Final Order dated August 27, 1987. EPA hereby remits $20,000.00 of the assessed $29,325.00 civil penalty in exchange for timely and satisfactory completion of the actions set forth in paragraph 11(A). The additional $6,825.00 penalty remains owing to EPA and will be remitted by EPA only upon timely and satisfactory performance of the actions required by paragraphs 11(B), (C), and (D) of the Consent Agreement and Final Order.

DATED this 9th day of October, 1987.

U.S. ENVIRONMENTAL PROTECTION AGENCY

BY: Richard Mednick
RICHARD MEDNICK
Assistant Regional Counsel
Attorney for Complainant

Form OBD-183
12-8-76 DOJ

D O

RECEIVED
OCT 09 1987
PESTICIDES & SUBSTANCES BRANCH
EPA REGION 10

Hedgebeth

AT-093

GONZAGA UNIVERSITY

September 28, 1987

RECEIVED
SEP 30 1987
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

Mr. William H. Hedgebeth
United States Environmental
Protection Agency
1200 6th Avenue
AT093
Seattle, Washington 98101

Dear Bill:

In accordance with Paragraph 11(A) of the Consent Agreement and Final Order dated August 27, 1987, I am enclosing final disposal documents for the six alleged PCB transformers. As you can see, we disposed of other material at the same time, some of which were noted in your report.

I would appreciate receiving confirmation from you regarding satisfaction of this part of the Agreement. If you have any questions, please contact me.

Sincerely,

Charles J. Murphy
Vice President for Finance

CJM:ch
Enc.

SPOKANE, WASHINGTON 99258-0001 • (509) 328-4220

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES
GENERAL ELECTRIC COMPANY PORTLAND, OREGON 97207

August 25, 1987

Mr. James A. Wright
GONZAGA UNIVERSITY
E 502 Boone
Spokane, WA 99210

cc: T. Gustafson
Spokane
Job No. 21068

SUBJECT: FINAL PCB MATERIAL DISPOSAL
GENERAL ELECTRIC TRACKING NO. 21068/SHOP NO. 40048
GENERAL ELECTRIC DOCUMENT NO. 87045/87060

Dear Mr. Wright:

Enclosed please find copies of the above captioned G.E. OUTBOUND MANIFESTS signed by the ultimate disposer of your PCB Material, as well as an up-dated PCB LOG PRINT-OUT tracking your material from the time we received it until final disposal.

This completes our job number 21068 and we have marked our files closed. Thank you for your patience in this matter.

If you have any questions, or we can be of service to you in any way, please do not hesitate to call me at (503) 221-5097. Again, we appreciate the opportunity of providing this service and look forward to serving you in the future.

Sincerely,

Annette E. Noe

Annette E. Noe
Facility Records
Portland Oregon

Attachments

GENERAL ELECTRIC COMPANY
PORTLAND DECOM FACILITY
PCB LOG REPORT
08/19/87
PAGE NO. 1

Job Numbers: 21068?
FSR Numbers: ALL
Customer Numbers: ALL

ITEM NO.	TYPE	PPM	DESCRIPTION MAKE	KVA	T	GAL	SERIAL NO.	WEIGHT LBS	KGS	DATE O/S	VOLUME	SHIPPED	DISPOSAL FACILITY	LOCATION	MANIFEST #	DATE BURNED
21068	FSR NO: 40048		GONZAGA UNIVERSITY					SPOKANE			(509)328-4220	REC'D: 05/15/87		21068		
001	S-DR	<25K	OVERPACK WITH:				RAGS/BUCKET/DEB	153	70	05/11/87		08/06/87	ENVIROSAF	GRANDVIEW	87060	********
002	LIQ	378	PCB LIQUID					386	175	05/11/87		07/02/87	TRINITY C	MOUND VALLEY	87045	07/13/87
003	LIQ	378	PCB LIQUID					391	178	05/11/87		07/02/87	TRINITY C	MOUND VALLEY	87045	07/13/87
004	LIQ	378	PCB LIQUID					318	145	05/11/87		07/02/87	TRINITY C	MOUND VALLEY	87045	07/13/87
X-001	S-DR	378	EMPTY DR/CRUSHED				21068-002	50	23	05/11/87		08/06/87	ENVIROSAF	GRANDVIEW	87060	********
X-002	S-DR	378	EMPTY DR/CRUSHED				21068-003	50	23	05/11/87		08/06/87	ENVIROSAF	GRANDVIEW	87060	********
X-003	S-DR	378	EMPTY DR/CRUSHED				21068-004	50	23	05/11/87		08/06/87	ENVIROSAF	GRANDVIEW	87060	********
								1398	635							

21065

use an elite (12-pitch) typewriter.)

Form Approved. OMB No. 2000-0404. Expires 7-31-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD 980 833 537

Manifest Document No. 87045

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210

4. Generator's Phone (503) 221-5097

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: ENVIRONMENTAL TRANSPORTATION

6. US EPA ID Number: OKD 981 586 605

C. State Transporter's ID: 860K0015

D. Transporter's Phone: 405-745-2002

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
TRINITY CHEMICAL COMPANY
62 E. FIRST STREET
MOUND VALLEY, KS 67354

10. US EPA ID Number: KSD 980 687 065

G. State Facility's ID

H. Facility's Phone: (316) 328-3222

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE HAZARDOUS SUBSTANCE LIQUID; NOS X ORM-E; NA 9188; RQ; POLYCHLORINATED BIPHENYLS	001	TT	* 21069	P	
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) 2809 GALS - PCB LIQUID: AT LESS THAN 500 PPM PCB

K. Handling Codes for Wastes Listed Above
*ESTIMATED WEIGHTS

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN. ALTERNATE TSDF: RETURN TO GENERATOR. IN CASE OF A SPILL CALL: 1-800-626-2001 X 66

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

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

GENERATOR

Printed/Typed Name: GARY E SCHMALZ — Signature: Gary E. Schmalz — Month 07 Day 02 Year 87

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Harold R SUTTON — Signature: Harold R. Sutton — Month 07 Day 02 Year 87

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space
2951 Gal

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

Printed/Typed Name: Robert L. Sheerhart — Signature: Robert L. Sheerhart — Month 07 Day 07 Year 87

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete.

7-BLS-C6

ORIGINAL - RETURN TO GENERATOR

CERTIFICATE OF DESTRUCTION

Trinity Chemical Company, Inc.
6405 Metcalf • Cloverleaf 3 • Suite 507 • Shawnee Mission, KS 66202
913/831-2290 • Toll Free 800/PCB-TEST

Psalms 18 2

General Electric Company
2535 NW 28th Avenue
Portland, OR 97210

Trinity Chemical Co., Inc. hereby certified that as of the 13th day of July, 19 87, it has disposed of the material referenced below in accordance with 40CFR 761 as it pertains to PCB disposal.

These items are identified by Trinity Chemical Co., Inc.'s invoice # 1440
dated July 13, 1987. Customer P.O. # 19870-30
Manifest # 87045

PCB-Contaminated Oil Under 500 ppm - 2,951 GALLONS

Batch Nos.: 1-0708 & 1-0709

Source: Multiple Generators
2535 NW 28th Avenue
Portland, OR 97210

Subscribed and sworn to before me this
13th day of July, 1987
Notary Public - Platte County, Mo.
Sherry J. Christy
Sherry J. Christy
My Commission Expires 9/8/89

Trinity Chemical Co., Inc.
By Charles E. [illegible]
Title Vice President
Date July 13, 1987

Print or type
(Designed for use on elite (12-pitch) typewriter.)

2935 15,820

Form Approved. OMB No. 2000-0404. Expires 7-31-85

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD 980 833 537
Manifest Document No. 87060
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210
4. Generator's Phone (503) 221-5097

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name
DART TRUCKING COMPANY INC
6. US EPA ID Number
OHD 009 865 825

C. State Transporter's ID
D. Transporter's Phone 800-238-8357

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ENVIROSAFE SERVICES OF IDAHO
10-1/2 MILES NW GRANDIVEW IDAHO
GRANDVIEW IDAHO
10. US EPA ID Number
IDD 073 114 654

G. State Facility's ID
H. Facility's Phone (208) 384-1500

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X WASTE HAZARDOUS SUBSTANCE SOLID; NOS; ORM-E; NA 9188; RQ (POLYCHLORINATED BIPHENYLS)	064	DM	* 3,210	P	
b. X WASTE HAZARDOUS SUBSTANCE SOLID; NOS; ORM-E; NA 9188; RQ (POLYCHLORINATED BIPHENYLS)	035	DM	6,176	P	
c. X WASTE HAZARDOUS SUBSTANCE SOLID; NOS ORM-E; NA 9188; RQ (POLYCHLORINATED BIPHENYLS)	004	CW	2,966	P	
d.					

J. Additional Descriptions for Materials Listed Above
*ESTIMATED WEIGHTS
a) 4 PALLETS CONTAINING 64 CRUSHED DRUMS
b) 12 PALLETS CONTAINING 35 DRUMS DEBRIS
b) 4 FULL BOXES CONTAINING DEBRIS

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN. ALTERNATE TSDF: RETURN TO GENERATOR. IN CASE OF A SPILL CALL: 1-800-626-2001 X 66

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

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

GENERATOR

Printed/Typed Name: GARY E SCHMALZ
Signature: Gary E. Schmalz
Month 08 Day 06 Year 87

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DONALD L. DALE
Signature: Donald L. Dale
Month 08 Day 06 Year 87

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

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: CARLA PRICE
Signature: Carla Price
Month 8 Day 7 Year 87

EPA Form 8700-22 (Rev. 4-85) Previous edition obsolete.

ORIGINAL - RETURN TO GENERATOR

7-BLS-C6

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES
GENERAL ELECTRIC COMPANY PORTLAND, OREGON 97207

July 9, 1987

Mr. James A. Wright
GONZAGA UNIVERSITY
E 502 Boone
Spokane, WA 99210

cc: T Gustafson
Spokane
Job: 21062

SUBJECT: FINAL PCB MATERIAL DISPOSAL
GENERAL ELECTRIC TRACKING NO. 21062/SHOP NO. 40043
GENERAL ELECTRIC DOCUMENT NO. 87037/00-317764

Dear Mr. Wright:

Enclosed please copies of the above captioned G.E. OUTBOUND MANIFESTS signed by the ultimate disposer of your PCB Material, as well as an up-dated PCB LOG PRINT-OUT tracking your material from the time we received it until final disposal.

This completes our job number 21062 and we have marked our files closed. Thank you for your patience in this matter.

If you have any questions, or we can be of service to you in any way, please do not hesitate to call me at (503) 221-5097. Again, we appreciate the opportunity of providing this service and look forward to serving you in the future.

Sincerely,

Annette E. Noe

Annette E. Noe
Facility Records
Portland Oregon

Attachments

Transporter Green-Generator's first copy

GENERAL ELECTRIC COMPANY
PORTLAND DECOM FACILITY
PCB LOG REPORT
06/23/87
PAGE NO. 1

Job Numbers: 21062?
FSR Numbers: ALL
Customer Numbers: ALL

ITEM NO.	TYPE	DESCRIPTION PPM	MAKE	KVA	T	GAL	SERIAL NO.	WEIGHT LBS	KGS	DATE O/S	VOLUME	SHIPPED	DISPOSAL FACILITY	LOCATION	MANIFEST #	DATE BURNED
21062	FSR NO: 40043		GONZAGA UNIVERSITY					SPOKANE			(509)328-4220	REC'D: 05/15/87		21062		
001	XFMR	>25K	AC	37.5	F	38	2680319	566	257	04/10/87		05/21/87	ENVIROSAF	GRANDVIEW	87037	########
002	XFMR	>25K	AC	37.5	F	38	2680317	558	254	04/10/87		05/21/87	ENVIROSAF	GRANDVIEW	87037	########
003	XFMR	>25K	AC	37.5	F	38	2680318	564	256	04/10/87		05/21/87	ENVIROSAF	GRANDVIEW	87037	########
X-001	BULK	>25K	PCB LIQ	95.680	G			1196	544	04/10/87		05/21/87	ROLLINS-E	DEERPARK	00-317764	05/28/87
								2884	1311							

21062

ATER COMMISSION
, 13087, Capitol Station
Texas 78711-3087

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

Form approved. OMB No. 2050-0039, expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD 980 833 537 — Manifest Document No. 87036
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210
4. Generator's Phone (503) 221-5097

A. State Manifest Document Number № 00317764
B. State Generator's ID 99941

5. Transporter 1 Company Name: CUSTOM ENVIRONMENTAL TRANSPORTATION
6. US EPA ID Number: DED 980 918 858
C. State Transporter's ID 40756
D. Transporter's Phone 713-479-4801

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ROLLINS ENVIRONMENTAL SERVICE, INC
2027 BATTLEGROUND ROAD
DEER PARK TEXAS 77536
10. US EPA ID Number: TXD 055 141 378
G. State Facility's ID 01429
H. Facility's Phone (713) 479-6001

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	001	TT	37540 * ~~42297~~	P	110550
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a) ONE (1) TANKER PCB LIQUID GREATER THAN 500 PPM PCB

K. Handling Codes for Wastes Listed Above
T06
*ESTIMATED WEIGHTS
HO-21649-38

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN.
ALTERNATE TSDF: RETURN TO GENERATOR.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: GARY E SCHMALZ — Signature: Gary E. Schmalz — Month 05 Day 21 Year 87

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: BILLY J. STELZER — Signature: Billy J. Stelzer — Month 05 Day 21 Year 87

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: L. FRANZ — Signature: L. Franz — Month 05 Day 23 Year 87

GENERATOR — TRANSPORTER — FACILITY

WC-0311 (Rev.11-06-86) White - original Pink-TSD Facility Yellow-Transporter Green-Generator's first copy

Rollins Environmental Services (TX) Inc.
P. O. Box 609, Deer Park, Texas 77536 (713) 479 6001

Rollins

JUNE 18, 1987

21062X

GENERAL ELECTRIC COMPANY
2535 NW 28TH AVENUE
PORTLAND, OR 97210

ATTN: Ms. Shirley Porter

Dear Ms. Porter:

This is to certify the material referenced below was incinerated as of 05/28/87 at our Deer Park facility - Rollins Environmental Services (TX) Inc., P. O. Box 609, Deer Park, Texas 77536 in accordance with 40 CFR 761 as it pertains to incineration of PCB solids, liquids and capacitors.

TOTAL POUNDS	-37540
H. O. NUMBER	-21649-38
DATE RECEIVED	-05/23/87
RES (TX) INC. B/L NUMBER	-84385
RES (TX) INVOICE NUMBER	-145338
TWC MANIFEST NUMBER	-00317764

SINCERELY,
RES (TX) INC.

Velma Shaffer /kts

VELMA K. SHAFFER
PCB RECORDS ADMINISTRATOR

cc: Mike Widera

Please call (713) 479-6001 Ext. 212 if there are any questions concerning the information on this Certificate of Destruction.

GENERAL ELECTRIC

APPARATUS AND ENGINEERING SERVICES
GENERAL ELECTRIC COMPANY PORTLAND, OREGON 97207

July 9, 1987

Mr. James A. Wright
GONZAGA UNIVERSITY
E. 502 Boone
Spokane, WA 99210

cc: T Gustafson
Spokane
Job: 21012

SUBJECT: FINAL PCB MATERIAL DISPOSAL
GENERAL ELECTRIC TRACKING NO. 21012/SHOP NO. 40038
GENERAL ELECTRIC DOCUMENT NO. 87022/87027/87040/00-207613

Dear Mr. Wright:

Enclosed please copies of the above captioned G.E. OUTBOUND MANIFESTS signed by the ultimate disposer of your PCB Material, as well as an up-dated PCB LOG PRINT-OUT tracking your material from the time we received it until final disposal.

This completes our job number 21012 and we have marked our files closed. Thank you for your patience in this matter.

If you have any questions, or we can be of service to you in any way, please do not hesitate to call me at (503) 221-5097. Again, we appreciate the opportunity of providing this service and look forward to serving you in the future.

Sincerely,

Annette E Noe

Annette E. Noe
Facility Records
Portland Oregon

Attachments

GENERAL ELECTRIC COMPANY
PORTLAND DECOM FACILITY
PCB LOG REPORT
07/08/87
PAGE NO. 1

Job Numbers: 21012?
FSR Numbers: ALL
Customer Numbers: ALL

ITEM NO.	TYPE	DESCRIPTION PPM	MAKE	KVA	T	GAL	SERIAL NO.	WEIGHT LBS	WEIGHT KGS	DATE O/S	VOLUME	DISPOSAL SHIPPED	DISPOSAL FACILITY	LOCATION	MANIFEST #	DATE BURNED
21012	FSR NO: 40038		GONZAGA UNIVERSITY					SPOKANE			(509)328-4220	REC'D: 03/12/87		40038		
001	XFMR	<25K	WAG	50	F	32	5L11374	780	355			03/25/87	ENVIROSAF	GRANDVIEW	87022	********
002	XFMR	<25K	WAG	50	F	32	5L11376	780	355			03/25/87	ENVIROSAF	GRANDVIEW	87022	********
003	XFMR	<25K	WAG	50	F	32	5L11375	780	355			03/25/87	ENVIROSAF	GRANDVIEW	87022	********
004	XFMR	295	GE	1.5	F	3	6270642	90	41			03/25/87	ENVIROSAF	GRANDVIEW	87022	********
005	S-DR	>25K	5 GAL MT CANS				LIG TO 012W-01	107	49			03/25/87	ENVIROSAF	GRANDVIEW	87022	********
006	S-DR	UNK	DDT PESTICIDE				RETURN TO GEN	68	31			05/12/87	ORIGINAL	GENERATOR	B-683835	********
X-001	LIQ	>25K	PCB LIQUID					785	357			03/26/87	ROLLINS-E	DEERPARK	00-207613	04/30/87
X-002	LIQ	>25K	PCB LIQUID					405	184			03/26/87	ROLLINS-E	DEERPARK	00-207613	04/30/87
X-003	LIQ	295	PCB OIL					73	33			04/14/87	TRINITY C	MOUND VALLEY	87027	05/06/87
X-004	S-DR	<25K	EMPTY DR/CRUSHED				21012X-003	50	23	04/14/87		06/05/87	ENVIROSAF	GRANDVIEW	87040	********
21012W	FSR NO: 40039		GONZAGA UNIVERSITY					SPOKANE			(509)328-4220	REC'D: 03/12/87		40038		
001	LIQ	>25K	PCB LIQUID				21012-05/06	190	86			03/26/87	ROLLINS-E	DEERPARK	00-207613	04/30/87
								4108	1867							

21012

Please print or type
(Form designed for use on elite (12-pitch) typewriter.) 2547 24,720

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD 980 833 537
Manifest Document No. 87022
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210
4. Generator's Phone (503) 221-5097

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name
DART TRUCKING COMPANY INC
6. US EPA ID Number
DHD 009 865 825

C. State Transporter's ID
D. Transporter's Phone 800-238-8357

7. Transporter 2 Company Name
8. US EPA ID Number

E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ENVIROSAFE SERVICES OF IDAHO
10-1/2 MILES NW GRANDIVEW IDAHO
GRANDVIEW IDAHO
10. US EPA ID Number
IDD 073 114 654

G. State Facility's ID
H. Facility's Phone (208) 384-1500

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	021	CM	* 17,327	P	
b. X WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	074	DM	5,012	P	
c. X WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	003	CW	2,861	P	
d.					

J. Additional Descriptions for Materials Listed Above
a) 21 TRANSFORMERS (7 LESS THAN 500 PPM/14 GREATER THAN 500 PPM
b) 64 CRUSHED DRUMS/1 DRUMS DEBRIS ON PALLETS
c) 3 FULL BOXES DEBRIS

K. Handling Codes for Wastes Listed Above
*ESTIMATED WEIGHTS
DRAIN/FLUSH LETTER ATTACHED

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN.
ALTERNATE TSDF: RETURN TO GENERATOR.

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

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GARY E SCHMALZ
Signature: Gary E. Schmalz
Month Day Year: 03 25 87

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: ED STRAIGHT
Signature: Ed Straight
Month Day Year: 03 25 87

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

19. Discrepancy Indication Space

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

Printed/Typed Name: [illegible] Price
Signature: [illegible]
Month Day Year:

2101

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD 980 833 537

Manifest Document No.: 87027

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210

4. Generator's Phone 503) 221-5097

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: MATLACK, INC

6. US EPA ID Number: DED 981 110 166

C. State Transporter's ID

D. Transporter's Phone 325-474-1014

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
TRINITY CHEMICAL COMPANY
62 E. FIRST STREE
MOUND VALLEY, KS 67354

10. US EPA ID Number: KSD 980 687 065

G. State Facility's ID

H. Facility's Phone (316) 328-3222

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. X WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	001	TT	*13,083	P	
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
a) COMPARTMENT TANKER: PCB LIQUID: LESS THAN 3000PPM PCB 1774 GALLONS

K. Handling Codes for Wastes Listed Above
*ESTIMATED WEIGHTS

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN.
ALTERNATE TSDF: RETURN TO GENERATOR.

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

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GARY E SCHMALZ
Signature: Gary E. Schmalz
Month Day Year: 04 14 87

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: W Leroy Koehn
Signature: W Leroy Koehn
Month Day Year: 04 14 87

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

19. Discrepancy Indication Space

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

Printed/Typed Name: Robert L. Shearhart
Signature: Robert L. Shearhart
Month Day Year: 04 20 87

Form 8700-22 (Rev. 9-85) Previous edition obsolete.

CERTIFICATE OF DESTRUCTION

TCC Trinity Chemical Company, Inc.
6405 Metcalf • Cloverleaf 3 • Suite 507 • Shawnee Mission, KS 66202
913/831-2290 • Toll Free 800/PCB-TEST
Psalms 18:2

General Electric Company
2727 NW 29th Avenue
Portland, OR 97210

Trinity Chemical Co., Inc. hereby certified that as of the 6th day of May, 19 87, it has disposed of the material referenced below in accordance with 40CFR 761 as it pertains to PCB disposal.

These items are identified by Trinity Chemical Co., Inc.'s invoice # 1407
dated May 6, 1987. Customer P.O. # 19870-27A
Manifest # 87027 & 87028

PCB-Contaminated Oil Under 500 ppm - 2,644 GALLONS
PCB-Contaminated Oil Under 3000 ppm - 1,774 GALLONS

Batch Nos.: 1-0428 & 2-0501

Source: Multiple Generators

Subscribed and sworn to before me this
8th day of May, 19 87
Notary Public - Platte County, Mo.
Sherry J. Christy
Sherry J. Christy
My Commission Expires 9/8/89

Trinity Chemical Co., Inc.
By Charles E. Cooper
Title Vice President
Date May 8, 1987

21012

2732 24,780

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ORD 980 833 537
Manifest Document No.: 87040
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210
4. Generator's Phone (503) 221-5097

A. State Manifest Document Number
B. State Generator's ID

5. Transporter 1 Company Name: DART TRUCKING COMPANY INC
6. US EPA ID Number: OHD 009 865 825
C. State Transporter's ID
D. Transporter's Phone: 800-238-8357

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
ENVIROSAFE SERVICES OF IDAHO
10-1/2 MILES NW GRANDIVEW IDAHO
GRANDVIEW IDAHO
10. US EPA ID Number: IDD 073 114 654
G. State Facility's ID
H. Facility's Phone: (208) 384-1500

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a.	X	WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	008	CM	* 3,650	P	
b.	X	WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	119	DM	20,648	P	
c.							
d.							

J. Additional Descriptions for Materials Listed Above
a) 07 PCB TRANSFORMERS GREATER THAN 500 PPM PCB/01 PCB CONTAMINATED TRANSFORMER ALL LESS THAN 500 PPM PCB
b) 80 CRUSHED DRUMS/39 DRUMS DEBRIS/BALLASTS DRAIN/FLUSH LETTER ATTACHED

K. Handling Codes for Wastes Listed Above
*ESTIMATED WEIGHTS

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN.
ALTERNATE TSDF: RETURN TO GENERATOR.

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

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

GENERATOR

Printed/Typed Name: SCOTT A DUNCAN
Signature: Scott A Duncan
Month 06 Day 05 Year 87

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: EDWARD A. RIPPON
Signature: Edward A. Rippon
Month 06 Day 05 Year 87

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: CAROL PRICE
Signature: Carol Price
Month 6 Day 9 Year 87

EPA Form 8700-22 (Rev. 4-85) Previous editions are obsolete.

ORIGINAL - RETURN TO GENERATOR

7-BLS-C6

21012

ATER COMMISSION
x 13087, Capitol Station
a, Texas 78711-3087

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

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ORD 980 833 537 | Manifest Document No. 87020

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MULTIPLE GENERATORS/GENERAL ELECTRIC COMPANY
2535 NW 28TH AVE, PORTLAND, OR 97210

4. Generator's Phone 503) 221-5097

A. State Manifest Document Number 00 207613

B. State Generator's ID 99941

5. Transporter 1 Company Name: CUSTOM ENVIRONMENTAL TRANSPORTATION

6. US EPA ID Number: DED. 980. 918. 858.

C. State Transporter's ID 40756

D. Transporter's Phone 713-479-4801

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ROLLINS ENVIRONMENTAL SERVICE, INC
2027 BATTLEGROUND ROAD
DEER PARK TEXAS 77536

10. US EPA ID Number: TXD 055 141 378

G. State Facility's ID 21429 4el

H. Facility's Phone (713) 479-6001

11A. HM	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
X	a. WASTE POLYCHLORINATED BIPHENYLS ORM-E UN 2315 RQ 10/4.54	001	TT	* 44,941	P	110550
	b.					
	c.					
	d.					

J. Additional Descriptions for Materials Listed Above
a) ONE (1) TANKER PCB LIQUID GREATER THAN 500 PPM PCB

K. Handling Codes for Wastes Listed Above
*ESTIMATED WEIGHTS
HO-21649-38

15. Special Handling Instructions and Additional Information
DIKE AND CONTAIN SPILLS. AVOID CONTACT WITH SKIN.
ALTERNATE TSDF: RETURN TO GENERATOR.

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

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of processing, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: GARY E SCHMALZ | Signature: Gary E. Schmalz | Month 03 Day 26 Year 87

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Robert A Higman Jr | Signature: Robert A Higman Jr | Date 03 26 87

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Date

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name | Signature | Date

A Form 8700-22 (Rev. 4-85) Previous edition is obsolete. White - original Pink-TSD Facility Yellow-Transporter Green-Generator
C 0311 (Rev. 01-01-85)

Rollins Environmental Services (TX) Inc.
P. O. Box 609, Deer Park, Texas 77536 (713) 479-6001

Rollins

APRIL 24, 1987

GENERAL ELECTRIC COMPANY
2727 N. W. 29TH AVENUE
PORTLAND, OREGON 97210

ATTN: Ms. Shirley Porter

Dear Ms. Porter:

This is to certify the material referenced below was incinerated as of 04/30/87 at our Deer Park facility - Rollins Environmental Services (TX) Inc., P. O. Box 609, Deer Park, Texas 77536 in accordance with 40 CFR 761 as it pertains to incineration of PCB solids, liquids and capacitors.

TOTAL POUNDS	-44880
H. O. NUMBER	-21649-38
DATE RECEIVED	-03/30/87
RES (TX) INC. B/L NUMBER	-82420
RES (TX) INVOICE NUMBER	-142993
TWC MANIFEST NUMBER	-00207613

SINCERELY,
RES (TX) INC.

Velma K. Shaffer/mo
VELMA K. SHAFFER
PCB RECORDS ADMINISTRATOR

cc: Rich Toberman

Please call (713) 479-6001 Ext. 212 if there are any questions concerning the information on this Certificate of Destruction.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

AUG 31 1987

REPLY TO
ATTN OF: SO-125

Kermit M. Rudolf
Corporation Counsel
Dellwo, Rudolf & Schroeder
424 Old National Bank Building
Spokane, Washington 99201-0386

Re: In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Rudolf:

Enclosed is a conformed copy of the fully-executed Consent Agreement and Final Order for settlement of the above-referenced matter. Timely and satisfactory completion of the required actions and payment of the civil penalty will bring this matter to a final resolution.

Thank you for your continued cooperation and efforts.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

cc: Hearing Clerk (w/orig. encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF: GONZAGA UNIVERSITY, Respondent.	Docket No. 1087-03-16-2615 CONSENT AGREEMENT AND FINAL ORDER

PRELIMINARY STATEMENTS

1. This administrative proceeding for the assessment of a civil penalty was commenced pursuant to Section 16 of the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2615 (1976), by a Complaint and Notice of Opportunity for Hearing issued on April 3, 1987.

2. Complainant is the United States Environmental Protection Agency (EPA) and Respondent is Gonzaga University (Gonzaga).

3. This Consent Agreement and Final Order is entered into by Gonzaga and EPA in accordance with 40 C.F.R. § 22.18 (1986).

FINDINGS OF FACT

4. On January 13, 1987, an EPA inspection was performed at Gonzaga University in Spokane, Washington. The purpose of the inspection

was to determine compliance with TSCA and the regulations pertaining to polychlorinated biphenyls ("PCBs"), 40 C.F.R. Part 761 (1986).

5. Based upon the results of the inspection, EPA issued the Complaint in this matter alleging the following:

A. Failure to properly dispose of PCBs as required by 40 C.F.R. § 761.60;

B. Failure to perform quarterly inspection of PCB transformers as required by 40 C.F.R. § 761.30;

C. Failure to register PCB transformers with the fire department as required by 40 C.F.R. § 761.30;

D. Failure to mark vault doors, PCB transformers, and PCB containers with proper PCB labels as required by 40 C.F.R. § 761.40;

E. Failure to have proper storage areas for PCBs and PCB items as required by 40 C.F.R. § 761.65;

F. Failure to mark PCB articles and containers with the date(s) such articles and containers were placed into storage as required by 40 C.F.R. § 761.65;

G. Failure to dispose of a PCB container within one year of the date it was placed into storage for disposal as required by 40 C.F.R. § 761.65; and

H. Failure to prepare annual documents for 1981 through 1985 as required by 40 C.F.R. § 761.180.

6. Gonzaga was notified of the above-described alleged violations by certified letter dated March 17, 1987.

7. At the informal settlement conference held on May 1, 1987, Gonzaga informed EPA that three of the six PCB transformers which are the

subject matter of the Complaint were properly disposed of by Gonzaga prior to issuance of the Complaint, and that the decisions to dispose of said three transformers had actually been made by Gonzaga prior to the EPA inspection and issuance by EPA of its Complaint. Gonzaga also informed EPA that the remaining three PCB transformers would be properly disposed of in an expeditious manner.

8. At the informal settlement conference, Gonzaga also indicated that appropriate information had been provided to the local fire department regarding the PCB transformers present at Gonzaga University. In addition, Gonzaga demonstrated that the containers which are the subject of claim number 22 in the Complaint were not PCB containers.

9. Based upon the facts set forth in paragraph 8 above, EPA has dismissed claim numbers 13-18 and 21 of the Complaint.

STIPULATIONS

10. The consent of both Gonzaga and EPA to settle this matter on the terms and conditions set forth in this Consent Agreement and Final Order is based upon the following stipulations:

A. In full and complete settlement of this matter, Gonzaga agrees to be bound by the terms of this Consent Agreement and Final Order, and explicitly waives its right to request an adjudicatory hearing regarding any provisions contained herein, or an appeal of this proceeding;

B. EPA has jurisdiction pursuant to TSCA over Gonzaga and this proceeding as set forth in the Complaint;

C. Gonzaga neither admits nor denies the facts as set forth in this Consent Agreement and Final Order;

D. Nothing contained herein is intended to be an admission of liability on the part of Gonzaga; and

E. Gonzaga agrees to pay a civil penalty and perform the actions as set forth below, rather than dispute through extensive and expensive litigation the allegations of the Complaint, in order to bring this matter to a speedy conclusion.

ACTIONS AND CONDITIONS

11. EPA agrees to remit part of the assessed civil penalty on the condition that Gonzaga performs the following actions according to the requirements and time periods specified.

A. To the extent it has not already done so, Gonzaga shall properly remove and dispose of the following PCB transformers:

(1) Wagner Electric, serial number 5L11375

(2) Wagner Electric, serial number 5L11374

(3) Wagner Electric, serial number 5L11376

(4) Allis Chalmers, serial number 2680317

(5) Allis Chalmers, serial number 2680319

(6) Allis Chalmers, serial number 2680318

Gonzaga shall provide EPA with a copy of the disposal manifest for all six transformers within six (6) months from the date of this Consent Agreement and Final Order. Such removal and disposal shall be completed in accordance with 40 C.F.R. § 761.60. Gonzaga shall also provide EPA with a copy of the certificate(s) of disposal for the six PCB transformers within one (1) year from the date of this Consent Agreement and Final Order. EPA will remit $20,000.00 of the assessed civil penalty in exchange for timely and satisfactory completion of the actions outlined in this paragraph.

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B. Gonzaga shall develop and implement an outreach program relating to PCB transformers in buildings and the risk of fire for Spokane, Washington. Such a program shall include the following:

(1) The development of material, in coordination with Washington Water Power and EPA, to be provided to entities in Spokane, Washington, which potentially have PCB transformers. These entities are all of the facilities within the Spokane metropolitan area that potentially have PCB transformers and that Gonzaga has identified in coordination with Washington Water Power and the Spokane Fire Department. The materials would include:

(a) Current PCB regulations and any current proposed amendments to the PCB regulations;

(b) A description of the requirements for registration of PCB transformers with the Spokane Fire Department, including a sample form containing all of the required information for such registration; and

(c) Other informational material regarding the hazards of PCBs, and in particular regarding the hazards of PCBs involved in fire situations.

(2) Follow-up, by telephone, to each entity to determine whether or not they have PCB transformers, either known PCB transformers or transformers that one is required to assume to be PCB transformers. Gonzaga will determine if the PCB transformers are registered with the Spokane Fire Department, and will assist the entity with this

registration if not already accomplished. Gonzaga will also assist the entity with questions regarding the PCB regulations, in coordination with EPA, if necessary.

C. Gonzaga will share the results of the program outlined in paragraph B above with the Spokane Fire Department, including providing them with information developed concerning the potential PCB hazards in the City of Spokane. This will include the following:

(1) Verification that all PCB transformers identified through this program are registered with the Spokane Fire Department; and

(2) Verification that Spokane Fire Department has a system in place to identify whether or not there are PCB transformers at fire locations, and that this information is readily available and would be provided to fire response personnel involved in fighting fires.

D. Gonzaga shall complete the program outlined in paragraphs B and C above and certify such completion to EPA within six months from the date of this Consent Agreement and Final Order. This certification will include the following:

(1) A summary of the results of the program, including the total number of PCB transformers identified. (Gonzaga will not be required to provide to EPA the identity of facilities having PCB transformers); and

(2) A summary of the program that the Spokane Fire Department has in place for registration of PCB transformers, and for providing this information to fire response personnel directly involved in fighting fires.

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E. EPA will remit $6,825.00 of the assessed civil penalty in exchange for timely and satisfactory performance of the actions set forth in paragraphs B, C, and D, above.

Dated: August 18, 1987

GONZAGA UNIVERSITY Vice Pres., Ad. & Pl.

Dated: August 11, 1987

U.S. ENVIRONMENTAL PROTECTION AGENCY

FINAL ORDER

12. Pursuant to the authority of Section 16(a)(2) of TSCA, 15 U.S.C. § 2615(a)(2)(1976), based upon the Preliminary Statements, Findings of Fact, Actions and Conditions and Stipulations set forth above, which are hereby adopted and made a part hereof, and upon consideration of the nature, circumstances, extent, and gravity of the alleged violations, and, with respect to Gonzaga, the ability to pay, effect on ability to continue to do business, degree of culpability, and extent of cooperation, and after consideration of the entire record herein, IT IS HEREBY ORDERED that Gonzaga be assessed a penalty in the amount of TWENTY-NINE THOUSAND THREE HUNDRED AND TWENTY-FIVE DOLLARS ($29,325), of which TWENTY-SIX THOUSAND EIGHT HUNDRED AND TWENTY-FIVE DOLLARS ($26,825) shall be remitted by EPA upon the condition that Gonzaga completes the requirements specified in the Actions and Conditions section, paragraph 11, infra, according to the time periods set forth therein. Payment of the remaining penalty amount ($2,500) shall be made by Gonzaga within thirty (30) days of entry of this

Final Order according to the terms specified below.

13. Should Gonzaga fail to meet any of the requirements of this Final Order and, within ten (10) days after being notified of such failure, should Gonzaga fail to satisfy this Final Order by compliance with all such requirements, or by providing a justification for noncompliance which is acceptable to EPA, EPA will make written demand for payment of the assessed or remitted penalty, or such parts thereof as may be deemed appropriate by EPA, plus interest, and such amount shall be due and paid to EPA within ten (10) days of receipt of such written demand. It is the understanding and intention of the parties, in this paragraph 13, that the actions to be taken by Gonzaga, for the purpose of achieving the remission of parts of the assessed civil penalty, shall be treated independently of each other. For example, once Gonzaga has made timely and satisfactory completion of the action outlined in Paragraph 11A., thereafter no demand will be made by EPA pertaining to the remitted penalty specified for the Paragraph 11A. action.

14. Interest shall accrue and be paid by Gonzaga on any portion of the $26,825 amount which is not remitted by EPA and/or of the $2,500 amount which is overdue in accordance with the terms of paragraph 12 infra, and this Consent Agreement and Final Order. Such interest shall accrue from the date on which notice is first mailed by EPA to Gonzaga. All interest due shall be at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717 (1983). In addition, a late payment processing and handling charge of $20.00 will be imposed after thirty (30) days, with an additional charge of $10.00 for each subsequent thirty (30)-day period over which an unpaid balance remains. Also, a six (6) percent a year

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penalty will be applied on any principal amount not paid within ninety (90) days of the date such amount is due in accordance with the terms of this Consent Agreement and Final Order.

15. Payment of any penalty due pursuant to the terms of this Final Order shall be made by certified check or cashier's check payable to the United States Treasurer and sent to the following:

U.S. Environmental Protection Agency
(Region 10 Hearing Clerk)
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

With a copy of the transaction sent to:

Regional Hearing Clerk
Office of Regional Counsel
EPA Region 10
1200 Sixth Avenue, SO-125
Seattle, Washington 98101

IT IS SO ORDERED.

THIS FINAL ORDER is duly entered and shall become effective immediately.

Dated this 27th day of August, 1987.

ROBIE G. RUSSELL
Regional Administrator
EPA Region 10

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 761

[OPTS-62035F; FRL 3217-1]

Polychlorinated Biphenyls in Electrical Transformers

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA issued a Final Rule, published in the Federal Register of July 17, 1985 (50 FR 29170) (hereafter, PCB Transformer Fires Rule), which required measures to reduce and eliminate the fire-related risks posed by the use of electrical transformers containing 500 parts per million (ppm) or greater of polychlorinated biphenyls (PCBs) (electrical transformers containing 500 ppm PCBs are referred to as PCB Transformers). Mississippi Power Company filed a petition for review, in District Court, of the PCB Transformer Fires Rule and in the context of settlement negotiations with EPA, Mississippi Power Company raised certain issues for consideration by the Agency. EPA evaluated these issues and agreed to take further action as specified in a settlement agreement executed on October 30, 1986. EPA issued a notice published in the Federal Register of December 31, 1986 (51 FR 47241) containing responses to specific questions regarding the PCB Transformer Fires Rule. In addition, EPA proposes amendments to the final PCB Transformer Fires Rule relating to, among other things: (1) The installation of PCB Transformers; (2) the use of an alternative label on PCB Transformer locations; (3) the existing enhanced electrical protection requirement on low secondary voltage network transformers; and (4) the prohibition on the use of certain PCB Transformers located in sidewalk vaults.

DATES: An informal hearing, if requested, will be held in Washington, DC, October 20, 1987. For the exact time and location of the hearing, telephone EPA's TSCA Assistance Office listed under "**FOR FURTHER INFORMATION CONTACT.**" Comments on this proposed rule and requests to participate in an informal hearing must be submitted by October 5, 1987. All requests to participate must include an outline of the topics to be addressed, the amount of time requested for the opening statement, and the names of participants. The informal hearing is meant to provide an opportunity for interested persons to present additional information or to discuss new issues, not to repeat information already presented in written comments. Reply comments made in response to issues raised at the hearing must be submitted no later than one week after the date of that hearing.

ADDRESS: Since some comments may contain confidential business information, all comments should be sent in triplicate to: Document Processing Center (TS-790), Rm. L-100, Office of Toxic Substances, Environmental Protection Agency, 401 M Street SW., Washington, DC 20460.

Comments should include the docket number OPTS-62035F. Any comments claimed to be confidential information must be marked "CONFIDENTIAL", be accompanied by a nonconfidential version of the confidential copy, and sent via certified mail. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR Part 2. Information not marked "CONFIDENTIAL" will be placed in the public record and may be disclosed publicly by EPA without prior notice.

Non-confidential versions of comments received on this proposed rule will be available for reviewing and copying from 8 a.m. to 4 p.m. Monday through Friday, excluding holidays, in Rm. NE-G004 at the address given above.

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-543, 401 M Street SW., Washington, DC 20460, (202-554-1404).

Copies of this proposed rule can be obtained from the TSCA Assistance Office. Copies of the support documents for this rule can be obtained through the OTS Document Control Officer listed above.

SUPPLEMENTARY INFORMATION: This document proposes to amend the PCB Transformer Fires Rule by:

a. Substituting the words "rupture" and "ruptures" for the words "failure" and "failures".

b. Allowing the installation of PCB Transformers beyond October 1, 1985, in emergency situations and in situations where the transformer has been retrofilled and is being placed into service for reclassification purposes.

c. Allowing the limited use of an alternative label on certain PCB Transformer locations.

d. Establishing an alternative to the existing electrical protection requirement for owners of lower secondary voltage network PCB Transformers in or near commercial buildings, and

e. Prohibiting the use, as of October 1, 1988, of all lower secondary voltage network PCB Transformers in sidewalk vaults near commercial buildings.

f. Requiring that, in the event a mineral oil transformer assumed to be PCB-Contaminated is subsequently tested and found to contain 500 ppm or greater PCB, a specific schedule be followed to bring the transformer into compliance with all applicable regulations.

I. Background

Section 6(e) of the Toxic Substances Control Act (TSCA) generally prohibits the use of PCBs after January 1, 1978. The statute does, however, set forth two exceptions under which EPA may, by rule, allow a particular use of PCBs to continue. Under section 6(e)(2) of TSCA, EPA may allow PCBs to be used in a totally enclosed manner. TSCA also allows EPA to authorize the use of PCBs in a manner other than a totally enclosed manner if the Agency finds that the use "will not present an unreasonable risk of injury to health or the environment."

EPA promulgated a rule, which was published in the Federal Register of May 31, 1979 (44 FR 31514), to implement section 6(e)(2) and (3) of TSCA under 40 CFR Part 761. The rule, among other things, designated all intact, nonleaking capacitors, electromagnets, and transformers, other than railroad transformers, as "totally enclosed," thus permitting their use without specific authorizations or conditions. The Environmental Defense Fund (EDF) petitioned the U.S. Court of Appeals for the District of Columbia Circuit to review a number of provisions of the rule, including the portion of the rule that designated all intact and nonleaking capacitors, electromagnets, and transformers as "totally enclosed" (*Environmental Defense Fund, Inc.* v. *Environmental Protection Agency*, 636 F.2d 1267).

On October 30, 1980, the court, among other things, decided that there was insufficient evidence in the record to support the Agency's classification of transformers, capacitors, and electromagnets as totally enclosed. The court invalidated this portion of the rule and remanded the rule to EPA for further action.

As a consequence to the October 1980 decision, EPA undertook a number of rulemaking actions. One such rule was published in the Federal Register of August 25, 1982 (47 FR 37324) (hereafter, "PCB Electrical Use Rule"). This rule authorized, among other things, the continued use, until October 1, 1985, of

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PCB Transformers (electrical transformers containing greater than 500 ppm PCBs) in facilities involved in the handling of food or feed items; and authorized for the remainder of their useful life, the use of all other categories of non-rail electrical transformers containing or contaminated with PCBs. In the PCB Electrical Use Rule, EPA made a determination that authorizing the use of these transformers for the remainder of their useful life (subject to certain conditions) did not present an unreasonable risk to public health or the environment. EPA's August 1982 decision to allow the continued use of electrical transformers containing PCBs was based on the reported low frequency of leaks and spills of PCBs from this equipment compared to the high costs associated with replacing this equipment with substitute transformers or requiring secondary containment to limit the spread of spilled materials. EPA determined that the most cost-effective means for reducing the risks posed by leaks and spills of PCBs from these transformers was to require routine inspections, repairs, and cleanup.

After promulgation of the PCB Electrical Use Rule, additional information came to EPA's attention that indicated that fires involving transformers that contain PCBs may occur more frequently than previously expected. Thus, EPA subsequently undertook an evaluation of the fire-related risks posed by the continued use of transformers that contain PCBs, and the costs and benefits of measures designed to reduce those risks. EPA issued a Proposed Rule, published in the Federal Register of October 11, 1984 (49 FR 39966), which contained EPA's determination that PCB Transformer fires (fires involving transformers containing greater than 500 ppm PCBs), particularly fires which occur in or near commercial buildings, do present risks to human health and the environment. EPA reached this determination after considering the toxicity of materials which can be formed and released during fires involving this equipment, as well as the potential for human environmental exposures to these compounds from a single incident, and the expected frequency of incidents over the remaining useful life of this equipment.

The Agency issued a final rule, published in the Federal Register of July 17, 1985 (50 FR 29170) (hereafter, the PCB Transformer Fires Rule) that amended the PCB Electrical Use Rule. The PCB Transformer Fires Rule placed additional restrictions and conditions on the use of PCB Transformers, particularly PCB Transformers located in or near commercial buildings. Among other provisions, EPA banned the further installation of PCB Transformers in or near commercial buildings, required the removal of PCB Transformers that posed particularly high fire-related risks, and required the installation of enhanced electrical protection on all other PCB Transformers located in or near commercial buildings.

After the promulgation of the PCB Transformer Fires Rule, Mississippi Power Company (hereafter, "Mississippi Power") filed a petition for review of the rule. In the context of settlement negotiations, EPA agreed to publish a clarification notice and propose to amend portions of the PCB Transformer Fires Rule.

EPA issued a Notice of Interpretation of the PCB Transformer Fires Rule published in the Federal Register of December 31, 1986 (51 FR 47241) that clarified several provisions of the EPA's regulations governing the use of electrical transformers containing PCBs. The questions concerned: (1) The PCB Transformer registration requirements; (2) the requirement for the removal of stored combustibles near PCB Transformers; (3) the requirement for the reporting of fire-related incidents to the National Response Center; (4) the definition of commercial building; (5) the status of mineral oil transformers which are found to contain over 500 ppm PCBs; (6) the ban on the installation of PCB Transformers in or near commercial buildings; and (7) the requirement for the labeling of the exterior of PCB Transformer locations.

Mississippi Power also raised additional, more substantive issues regarding EPA's ban on the installation of PCB Transformers, the requirements for enhanced electrical protection of low secondary voltage network PCB Transformers, and the requirement for the labeling of the exterior of PCB Transformer locations. First, Mississippi Power questioned whether EPA had intended to ban the installation of PCB Transformers in emergency situations (where no other non-PCB substitute is available) and the installation of retrofilled PCB Transformers when installed for purposes of reclassification. Further, Mississippi Power asked EPA to reconsider the requirement for enhanced electrical protection of low secondary voltage network PCB Transformers because of space constraints in sidewalk vaults, lack of suitable (i.e., waterproof) fuse enclosures, and Mississippi Power's belief that the cost of fuse installation is 2 to 4 times higher than EPA originally estimated. Finally, Mississippi Power asked that EPA allow the use of alternative labels on PCB Transformer locations, when such labeling occurred voluntarily prior to the effective date of the PCB Transformer Fires Rule.

EPA evaluated the additional information submitted by Mississippi Power in the context of settlement negotiations and decided that the new information warranted a reconsideration of certain of the Agency's previous determinations. This notice presents the results of the Agency's further evaluations and proposes some modification to the requirements of the PCB Transformer Fires Rule.

II. Summary of Proposed Rule

Under section 6(e)(2)(B) of TSCA, EPA can authorize a use of PCBs provided that the use "will not present an unreasonable risk of injury to health or the environment." Although the use of PCB Transformers were authorized until October 1, 1985 in facilities involved in the handling of food and feed items and the use of all other categories of non-railroad electrical transformers containing or contaminated with PCBs were authorized for the remainder of their useful lives, EPA later determined that PCB Transformer fires (fires involving transformers containing greater than 500 ppm PCB), particularly fires which occur in or near commercial buildings, do pose risks to humans and the environment. EPA determined that the continued use of PCB Transformers without additional regulatory control measures would present an unreasonable risk of injury to health and the environment and thus, in the PCB Transformer Fires Rule, imposed further restrictions and conditions on the use of PCB Transformers.

The final PCB Transformer Fires Rule required the marking of the exterior of PCB Transformer locations with the PCB identification label, and prohibited, among other things, the further installation of PCB Transformers (electrical transformers containing 500 ppm or greater PCBs) in or near commercial buildings. The PCB Transformer Fires Rule also placed conditions on the continued use of lower secondary voltage network PCB Transformers in or near commercial buildings by requiring that these transformers be equipped with enhanced electrical protection as of October 1, 1990. Enhanced electrical protection was required by EPA to avoid electrical failures leading to fire-related incidents.

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Following promulgation of the final PCB Transformer Fires Rule, EPA received several comments from the regulated community concerning the above prohibition and the conditions EPA placed on the continued use of PCB Transformers. In comments submitted following the promulgation of the PCB Transformer Fires Rule, Mississippi Power asked EPA to consider: (1) Clarifying the current language of the requirements for enhanced electrical protection by substituting the word "rupture" for "failure"; (2) modifying the requirement for enhanced electrical protection of lower secondary voltage network transformers because of space constraints in existing sidewalk vault locations; (3) allowing the installation of PCB Transformers in certain circumstances, such as in emergency situations and for purposes of retrofill and reclassification; (4) allowing the use of alternative labels in situations where such labeling was voluntarily initiated prior to the effective date of the PCB Transformer Fires Rule; and (5) establishing a specific schedule for bringing mineral oil transformers, which are tested and found to contain 500 ppm or greater PCBs, into compliance with applicable requirements.

EPA reviewed the new information submitted by Mississippi Power, and others, and considered their requests for modifications to the PCB Transformer Fires Rule. EPA has determined that the issues raised by Mississippi Power, and others, warrant further Agency consideration and is, therefore, proposing certain amendments to the PCB Transformer Fires Rule. Thus, in this document, EPA is proposing to revise, among other things, the ban on the further installation of PCB Transformers in or near commercial buildings and the requirement of enhanced electrical protection, as of October 1, 1990, on lower secondary voltage network PCB Transformers.

EPA is proposing to allow: (a) The installation of PCB Transformers in emergency situations (when no other non-PCB substitute is available); (b) the installation of retrofilled PCB Transformers for purposes of reclassification; and (c) the use of an alternative label to mark the exterior of certain PCB Transformer locations provided the labeling program was initiated voluntarily prior to the effective date of the PCB Transformer Fires Rule. EPA is also proposing to offer owners of lower secondary voltage network PCB Transformers located in or near commercial buildings the option of enhanced electrical protection by October 1, 1990 (as is currently required), or removal by October 1, 1993. Further, EPA is proposing to prohibit the use of low secondary voltage network PCB Transformers located in sidewalk vaults near commercial buildings as of October 1, 1993.

Finally, EPA is proposing to amend the language in 40 CFR 761.30(a)(1)(iv) and (v), respectively, by deleting the words "failure" and "failures" and substituting the words "rupture" and "ruptures" to avoid ambiguity in the language, and is proposing a specific schedule for bringing mineral oil transformers, found to contain 500 ppm or greater PCBs, into compliance with the applicable regulations.

III. Discussion of Proposed Amendments

A. *Installation of PCB Transformers*

The PCB Transformer Fires Rule banned the installation of PCB Transformers in or near commercial buildings after October 1, 1985. However, EPA is proposing to allow the installation of PCB Transformers in or near commercial buildings in two situations that EPA believes warrant special consideration. First, in emergency situations, where neither a non-PCB Transformer nor PCB-Contaminated transformer is currently available to replace a failed PCB Transformer and immediate replacement is necessary to continue electric service to the entity or entities served by the transformer. Second, for purposes of reclassification, so that a retrofilled transformer may accrue the necessary in-service time to allow reclassification of the unit. EPA, therefore, proposes to allow installation in emergency situations and in situations where installation of a retrofilled PCB Transformer is necessary for reclassification purposes.

1. *Emergency installation.* The PCB Transformer Fires Rule prohibited the further installation of PCB Transformers in or near commercial buildings. This meant that PCB Transformers which were placed into storage for reuse could not be taken out of storage for reuse and placed in use in or near a commercial building. EPA has received comments from utilities that are currently in a situation where the only spare transformers available for use in an emergency situation are PCB Transformers. EPA, in its original assessment of the impact of the prohibition on the installation of PCB Transformers in or near commercial buildings, assumed that non-PCB Transformers would be available for installation in such instances. EPA did not realize that one potential impact of the prohibition would be the denial of electric service to utility customers following the failure of a transformer in the system.

EPA's decision to prohibit the further installation of PCB Transformers in or near commercial buildings was based on a determination that this activity would present an unreasonable risk. This determination was made after balancing the risks posed by installing PCB Transformers in or near commercial buildings against the benefits of further installation. EPA's analysis of the benefits of further installation included an assessment of the availability of substitutes and the economic impact of not allowing further installation of PCB Transformers in or near commercial buildings. In prohibiting the further installation of PCB Transformers in or near commercial buildings, EPA believed that: (1) The benefits of placing a PCB Transformer into a newly constructed building did not outweigh the risks posed; (2) the benefits of replacing a non-PCB Transformer or PCB-Contaminated transformer with a PCB Transformer did not outweigh the risks posed; and, (3) the benefits of installing a PCB Transformer in or near a commercial building to replace a removed PCB Transformer did not outweigh the risks posed. EPA determined that, for all of these cases, the economic impact of a ban on further installation would be negligible because EPA assumed that other adequate non-PCB substitute transformers were available for installation and use in or near commercial buildings.

After the promulgation of the final PCB Transformer Fires Rule, the Electric Power Board of Chattanooga (EPBC) and Kansas City Power and Light Company (KCPL) contacted EPA and supplied information that indicates that, for certain transformers currently in use, EPBC and KCPL currently have only PCB Transformers available for use as replacements in emergency situations. Both utilities have, however, initiated action either to obtain new non-PCB Transformers or to retrofill/reclassify their in-storage PCB Transformers.

This additional information has led EPA to question its belief about the availability of substitutes for this equipment in an emergency situation. The information shows that some transformer owners or users need additional time to acquire non-PCB or PCB-Contaminated transformers. EPA did not intend to prohibit the installation of PCB Transformers in emergency situations where neither a non-PCB Transformer nor a PCB-Contaminated transformer is available for installation and use. EPA is soliciting comments on

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the availability of non-PCB Transformers for use in emergency situations. In addition, EPA is soliciting information on the ability to quickly purchase and receive non-PCB Transformers for use in emergency situations.

The impact of being unable to install a PCB Transformer in this type of situation could be large, because electric service could not be provided to certain utility customers. Business shutdowns and even more serious effects, such as loss of life, could result from the denial of electric service to facilities such as nursing homes and hospitals. Clearly, EPA did not consider that the ban on the further installation of PCB Transformers could potentially have such serious economic and human health impacts.

EPA did not foresee these impacts when the PCB Transformer Rule was promulgated. The Agency, in its determination of unreasonable risk, did not consider that its immediate ban on the further installation of PCB Transformers could cause serious human health impacts. Thus, EPA is reconsidering its determination to ban further installation as of October 1, 1985 and is proposing to extend the effective date to allow the emergency installation of PCB Transformers until October 1, 1990. However, EPA is proposing to restrict to 1 year the time that such a transformer may be used, once it has been installed on an emergency basis.

The highest frequency of fire-related incidents occur in high secondary voltage network PCB Transformers. EPA estimated that the fire-related incidence rate for these transformers was .03% per year. EPA expects that for the total transformer population, less than .012% of the transformers (less than 13) will have to be installed from 1987 through 1990. Thus, even if all were high risk, emergency replacement units, EPA would expect less than one fire-related incident involving a newly installed PCB Transformer during this period. Further, since EPA proposes to allow those transformers installed on an emergency basis to be used for only 1 year from the date of installation, the incremental risk of allowing a 1 year maximum use after installation would not create an unreasonable risk to public health and the environment. EPA considered the benefits of allowing the installation in an emergency situation compared to the frequency of incidents during the period of use and determined that this installation would not present an unreasonable risk.

Although EPA believes that the probability is low for a newly installed PCB Transformer failing and causing a fire-related in :ident, there are certain risks posed by the installation of PCB Transformers, even in emergency situations. EPA knows of at least one documented instance where a PCB Transformer involved in a fire-related incident was replaced with a second PCB Transformer which then also failed. However, EPA believes that it has mitigated these risks by prohibiting further installation after October 1, 1990 (even in emergency situations), and by placing a time restriction on the continued use of these PCB Transformers after emergency installation. Finally, these transformers are required to be operated in accordance with all other restrictions and conditions of the PCB Transformer Fires Rule and the PCB Electrical Use Rule, including registration with Fire Departments and building owners, exterior labeling, and inspections for leaks and spills. EPA has concluded that the installation of PCB Transformers on an emergency basis until October 1, 1990 and compliance with these restrictions and conditions will not present an unreasonable risk of injury to public health or the environment.

2. *Installation for reclassification purposes.* In the final PCB Transformer Fires Rule, EPA prohibited the further installation of PCB Transformers in or near commercial buildings after October 1, 1985 to decrease the risk of commercial building contamination in the event of a PCB Transformer fire. However, since promulgation of the final rule, EPA has determined that there are instances that warrant special consideration where it may be necessary (see Unit III.A.1 above regarding emergency situations) and/or beneficial to allow limited installation of a PCB Transformer.

Based on comments received after promulgation of the final PCB Transformer Fires Rule, EPA was informed that in most instances the spare transformers in storage for reuse are specifically paired with transformers in use. Thus, in the event of a failed PCB Transformer in the system, the utility is placed in a position of replacing a failed PCB Transformer with another PCB Transformer because the only spares available for use are PCB Transformers. Although the regulation prohibits the replacement of failed PCB Transformers with non-PCB Transformers, EPA believes that retrofilling and reclassification should be available as a viable option for this equipment. EPA has typically encouraged retrofilling and reclassification and believes that the benefits of reclassification in certain situations approach the benefits of PCB Transformer replacement.

An amendment to the PCB regulation (40 CFR 761.30 (a)(2)(v)), published in the Federal Register of August 25, 1982 (47 FR 37358), declared that the PCB concentration in transformers may be reduced for purposes of reclassifying the transformer to a non-PCB Transformer or PCB-Contaminated transformer. PCB Transformers and PCB-Contaminated transformers may be reclassified by draining, refilling and/or otherwise servicing the transformers. In order to be reclassified after this servicing, the transformer's dielectric fluid must be tested and found to contain less than 500 ppm PCBs (for conversion to PCB-Contaminated transformer) or less than 50 ppm (for conversion to a non-PCB Transformer) after a minimum of 3 months in-service use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the transformer. Three months is the minimum amount of time necessary to ensure that the PCBs trapped in the interior parts of the transformer leach out into the dielectric fluid. A transformer is treated as if it contained the original concentration of PCBs until it is reclassified; therefore, a PCB Transformer cannot be converted to a PCB-Contaminated transformer of non-PCB Transformer unless the transformer has been reclassified pursuant to 40 CFR 761.30(a)(2)(v). That is, a transformer cannot be reclassified after retrofilling until it has accrued a minimum of a 3 months of inservice use and been subsequently tested and found to contain less than 500 ppm PCB (for conversion to a PCB-Contaminated transformer) or less than 50 ppm PCB (for conversion to a non-PCB Transformer).

EPA wants to encourage the conversion of PCB Transformers that are currently in storage for reuse to PCB-Contaminated or non-PCB status. Allowing the installation of a retrofilled PCB Transformer for reclassification purposes would give utilities and others similiarly situated an opportunity to convert their spare PCB Transformers to PCB-Contaminated or non-PCB status pursuant to § 761.30(a)(2)(v). Thus, EPA is reconsidering its determination to ban further installation of PCB Transformers as of October 1, 1985 and is proposing to extend the effective date to allow the installation until October 1, 1990 of retrofilled PCB Transformers so that these units may accrue the necessary inservice use time to allow for reclassification. However, once a retrofilled PCB Transformer is installed for reclassification purposes, it must be tested 3 months after installation to ascertain the concentration of PCBs. If

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the PCB concentration is below 50 ppm, the transformer can be reclassified as a non-PCB Transformer. If the PCB concentration is between 50 and 500 ppm, the transformer can be reclassified to a PCB-Contaminated transformer. If the PCB concentration remains at 500 ppm or greater, the entire process must either be repeated until the transformer has been reclassified to a non-PCB or PCB-Contaminated transformer in accordance with § 761.30(a)(2)(v) or the transformer must be removed from service.

Comments received since promulgation of the rule suggest that if a PCB Transformer is installed for purposes of reclassification, there should be a limited time to achieve reclassification. EPA has received information that reclassification to a non-PCB or PCB-Contaminated transformer can take approximately 18 months; However, EPA solicits comments regarding the length of time needed to reclassify a PCB Transformer to a non-PCB Transformer or PCB-Contaminated transformer.

There are two categories of PCB Transformers that can be reclassified: (1) Transformers originally designed to contain PCB dielectric fluid ("askarel" transformers); and (2) mineral oil transformers that have become contaminated with 500 ppm or greater PCBs as a result of past servicing activities. Retrofilling and reclassification of "askarel" PCB Transformers to PCB-Contaminated or non-PCB status require more effort, as a single retrofill of an "askarel" PCB Transformer typically leaves 80,000 ppm PCBs still in the transformer. Thus, reclassification of an "askarel" PCB Transformer to PCB-Contaminated or non-PCB status typically requires several retrofills. Reclassifying mineral oil PCB Transformers to PCB-Contaminated or non-PCB status can be accomplished more easily, because the typical PCB concentration in these mineral oil transformers is less than 1,000 ppm. In many cases, a single retrofill will allow subsequent reclassification of mineral oil PCB Transformers to PCB-Contaminated status.

In recognition of this fundamental difference between the risks posed by the installation for reclassification purposes of an "askarel" PCB Transformer versus a mineral oil PCB Transformer, EPA is proposing to allow an indefinite installation period for retrofilled mineral oil PCB Transformers that will be installed for reclassification purposes. However, for "askarel" PCB Transformers, EPA is prohibiting installation even for reclassification purposes after October 1, 1990.

EPA recognizes that the installation of retrofilled PCB Transformers for reclassification purposes presents some level of risk. Comments received suggest there are on the average 3,000 transformers in storage for reuse. Assuming that all of these transformers will be installed for reclassification purposes (comments suggest that, due to the age of some of these transformers in storage for reuse, it would not be economically justifiable to retrofill and reclassify all of these units), EPA believes the risks to human health and the environment from PCB exposure are substantially lower because retrofilled units will replace paired pure PCB units. However, EPA believes that it should make available retrofill and reclassification as an alternative to transformer replacement. Since most utilities, according to comments received after the rule was promulgated, maintain they have to replace all of their PCB Transformers that are in storage for reuse under the existing requirement that bans the installation of PCB Transformers, this would allow utilities that have PCB Transformers in storage for reuse (which are specially paired to transformers in use) to place these retrofilled transformers in service for reclassification purposes. Allowing installation of these retrofilled PCB Transformers for reclassification purposes allows the utility to continue service to their customers while accruing the in-service use time needed to reclassify the PCB Transformer to a PCB-Contaminated transformer or non-PCB Transformer.

B. Failure vs. Rupture

In this document, EPA proposes to amend the language in 40 CFR 761.30(a)(1)(iv) and (v), respectively, by deleting the words "failure" and "failures", and substituting the words "rupture" and "ruptures".

Questions and comments received by EPA necessitate a change in the language to avoid confusion and give a clear understanding of the Agency's intent in regulating PCBs, which is to reduce the release of PCBs and thereby reduce exposure to humans and the environment. Fires and fire-related incidents involving transformers containing PCBs have been found to be responsible for the release of PCBs (and other materials more toxic than PCBs). Thus, in the Federal Register of July 17, 1985 (50 FR 29170), EPA issued final amendments to the rule governing the use of PCBs by placing additional restrictions and conditions on the use of PCB Transformers. These amendments include use authorizations for PCB Transformers with certain conditions to reduce risk of injury to health or the environment sometimes caused by transformer "ruptures". EPA, in this proposed amendment, takes notice that electrical "failure", when used to describe the actual electrical fault condition, cannot be prevented. The intent of the regulation to provide enhanced electrical protection is not to avoid failure (a condition that cannot be prevented), but to avoid the likelihood of rupture of a PCB Transformer from electrical failure. EPA believes that comments received after promulgation of the final PCB Transformer Fires Rule merit a change in the language; therefore, EPA is proposing an amendment to avoid ambiguity in the language of the regulation by substituting the word "rupture" or "ruptures" for "failure" or "failures" when they appear in § 761.30(a)(1)(iv) and (v).

C. Alternative Labeling

In this document EPA is also proposing to allow the use of an alternative label (other than that required under the current regulation). Under the existing regulations EPA requires that the vault door, machinery room door, fence, hallway, or means of access, other than grates and manhole covers, to a PCB Transformer be marked, as of December 1, 1985, with the mark M_L (the PCB label). EPA believed that a labeling requirement on transformer locations, in addition to the requirement for transformer registration, would provide increased assurance that emergency response personnel arriving at the scene of a fire would know that the fire involves a transformer that contains PCBs. Thus, in the final PCB Transformer Fires Rule, EPA instituted a labeling requirement, specifically requiring the mark M_L on the exterior of PCB Transformer locations.

EPA required the use of one type of label to provide consistence and to facilitate compliance monitoring efforts. The PCB identification label was required because EPA assumed that most PCB Transformer owners already had these labels in their possession since, prior to this labeling requirement, the mark M_L was already required on the PCB Transformers themselves. Therefore, owners of PCB Transformers would not have to make special purchases of a new type of label in order to be in compliance with this new labeling requirement. However, after promulgation of the final PCB Transformer Fires Rule, EPA received comments indicating that a few utilities

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had already coordinated with fire departments and voluntarily labeled the exterior of PCB Transformer locations with a mark other than M_L. While EPA is interested in a compatible nationwide labeling system, EPA believes that those who voluntarily initiated labeling programs after consultation with local emergency response organizations should not be required to incur the additional expense associated with relabeling.

EPA sees little benefit in achieving the stated goal of labeling by requiring the re-marking of these locations. Allowing an alternative label satisfies the intent of the requirement, as stated in the PCB Transformer Fires Rule at 50 FR 29189, and avoids the additional economic burden of implementing new labeling programs. Thus, EPA is proposing to allow an alternative label, other than the mark M_L, when a label is already being used on the exterior of PCB Transformer locations to insure that emergency response personnel arriving at the scene of a fire will know that a fire involves a PCB Transformer, and the labeling program was initiated and coordinated between the emergency response personnel and the transformer owner, prior to August 15, 1985 (the effective date of the PCB Transformer Fires Rule). However, EPA would require those who voluntarily established a labeling program before August 15, 1985, to do the following: (1) Inform the Regional Administrator in the appropriate region of the use of the alternative label, (2) provide documentation that the program was initiated before August 15, 1985, and (3) provide documentation that the appropriate emergency response organizations know and recognize the meaning of the mark.

D. Electrical Protection

In the final PCB Transformer Fires Rule, EPA prohibited, as of October 1, 1990, the use of all network PCB Transformers with higher secondary voltages (secondary voltages at or above 480 volts) in or near commercial buildings and required the installation, by October 1, 1990, of enhanced electical protection on the remaining commercial PCB Transformers, including all radial and lower secondry voltage network transformers (network transformers with secondary voltages below 480 volts).

In this document, EPA is proposing an amendment to the electrical protection requirements of the final PCB Transformer Fires Rule. Currently, the regulation has no provision for the phaseout of lower secondary voltage network PCB Transformers located in or near commercial buildings. However, the PCB Transformer Fires Rule does require the installation of enhanced electrical protection on these transformers by October 1, 1990. EPA is proposing to amend the October 1, 1990 date for enhanced electrical protection of lower secondary voltage network PCB Transformers. For low secondary voltage network PCB Transformers located in sidewalk vaults near commercial buildings, EPA is proposing to require the removal of these transformers by October 1, 1993 (see Unit III.E.). For all other low secondary voltage network PCB Transformers in or near commerical buildings, EPA is offering owners of this equipment an alternative to the current requirement for enhanced electrical protection by October 1, 1990. This alternative is the removal of this equipment by October 1, 1993, provided that EPA is notified of the pending removal by no later than October 1, 1990. In short, EPA proposed to allow owners of lower secondary voltage network PCB Transformers located in commercial buildings or near commercial buildings (in other than sidewalk vault locations) the option of implementing risk reduction measures on a shorter schedule, by implementing the current requirement which requires installing enhanced electrical protection by October 1, 1990, or removing the PCB Transformers by October 1, 1993. EPA is also proposing that those owners who choose to remove this equipment, register those transformers with the EPA Regional Administrator in the appropriate region. This provides the Regional Administrator with information that would facilitate compliance monitoring efforts. Information to be provided to the Regional Administrtor, when registering the transformer, includes the PCB Transformers location, including the address of the building and the physical location of the PCB Transformer on the building site, along with the identification number of the PCB Transformer.

EPA is proposing this alternative to the existing requirements in part because comments received following promulgation of the PCB Transformer Fires Rule indicated that EPA may have underestimated the costs associated with installation of enhanced electrical protection on these transformers. These comments suggest that many owners are in fact considering the removal/retrofill of these transformers. Commentors argue that EPA did not consider this potential result in its original assessment in support of the PCB Transformer Fires Rule.

According to available data, EPA expects that there are fewer than 3,000 low secondary voltage network PCB Transformers in or near commercial buildings (in other than sidewalk vault locations). Based on available information, the vast majority of low secondary voltage network PCB Transformers (over 10,000 units) appear to be located in sidewalk vaults.

EPA acknowledges that in July 1985 it did not expect owners of these transformers to remove/retrofill these transformers by October 1, 1990, rather than install enhanced electrical protection. Had EPA recognized this potential impact of requiring enhanced electrical protection of these transformers, EPA may have extended the date for compliance with he enhanced electrical protection requirements. An extension would have been a reasonable action in light of the Agency's determination that lower secondary voltage network PCB Transformers pose less of a fire-related risk than higher secondary voltage network PCB Transformers (which EPA required to be removed by October 1, 1990). That is, EPA did not intend to place these two types of transformers, which pose different levels of fire-related risks, on essentially the same schedule for removal.

EPA recognizes that modifying the PCB Transformer Fires Rule to provide owners the option of removal by October 1, 1993 or enhanced electrical protection by October 1, 1990 will most likely have the effect of allowing the continued use of many of these transformers for an additional 3 years (without enhanced electrical protection). However, EPA believes that it should encourage utilities and other owners of high secondary voltage network transformers located in or near commercial buildings to direct all available resources to the imediate removal of these higher fire risk units. EPA expects that staggering regulatory requirements for these different systems will, albeit indirectly, help achieve this goal.

Finally, while EPA continues to expect enhanced electrical protection to be an effective risk reduction mechanism for these transformers, EPA prefers the regulatory option of transformer removal because it completely eliminates PCB Transformer fire-related risks (as well as the risks posed by leaks and spills of PCBs from these transformers). EPA also recognizes, however, that PCB Transformer removal is costly. In providing transformer owners the option of risk reduction in the short term or removal on a slightly

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longer schedule. EPA has attempted to create an incentive for removal.

E. Phaseout of Lower Secondary Voltage Network PCB Transformers in Sidewalk Vaults

In the final PCB Transformer Fires Rule, EPA prohibited, as of October 1, 1990, the use of all network PCB Transformers with higher secondary voltages, while requiring enhanced electrical protection on the remaining commercial PCB Transformers, including all radial and lower secondary voltage network PCB Transformers.

In this document, EPA is proposing to amend the current requirement that electrical protection be installed as of October 1, 1990, on all lower secondary voltage network PCB Transformers in or near commercial buildings. EPA is proposing to require that lower secondary voltage network PCB Transformers located in sidewalk vaults near commercial buildings be removed from service by October 1, 1993. Unlike owners of low secondary network PCB Transformers located outside of a sidewalk vault, who have an option of removing these transformers from service or installing enhanced electrical protection, owners of this equipment will not have the choice of electrical protection or removal. The Proposed Rule will require these transformers located in sidewalk vaults to be removed as of October 1, 1993.

In the PCB Transformer Fires Rule, EPA determinined that requiring enhanced electrical protection of these transformers would significantly reduce the fire-related risks posed by the use of this equipment. However, after promulgation, EPA received comments that indicated that it was neither practical nor feasible to install additional protective devices on lower secondary network PCB Transformers in sidewalk vaults, citing cost and physical constraints as major factors. The most frequent explanation given by utilities, according to an inventory taken by the Resource Planning Corporation (RPC), as to why current-limiting fuses were neither practical nor feasible, was space limitations within sidewalk vaults and lack of suitable fuse enclosures (i.e., waterproof and with extended service life) for the underground environment.

As is the case for low secondary voltage network PCB Transformers located in other than sidewalk vaults (see Unit III.D.), comments received after the rule was promulgated indicate a strong desire to replace these transformers located in sidewalk vaults rather than install current-limiting fuses, resulting in many more transformers potentially being removed from service than EPA originally expected. In contrast to the situation for low secondary voltage network transformers in other than sidewalk vaults (where enhanced electrical protection is still an option), according to comments, space constraints and lack of suitable fuse enclosures make enhanced electrical protection of those units in sidewalk vaults impractical. The most effective option for reducing fire-related risks is removal of these transformers. Thus, EPA is proposing to require owners of transformers located in sidewalk vaults to remove them from service as of October 1, 1993.

As previously noted, according to comments, owners of low secondary voltage netowrk PCB Transformers located in sidewalk vaults would rather remove these transformers from service than install enhanced electrical protection due to, among other things, space constraints within these sidewalk vaults. Thus, economically, these owners have no choice and would have to remove these transformers from service, as of October 1, 1990, rather than install enhanced electrical protection. This would have the effect of EPA requiring the removal, as October 1, 1990, of not only the high secondary voltage network PCB Transformers, but the lower secondary voltage network transformers as well. EPA did not intend to place two types of transformers, which pose different levels of risks, on essentially the same schedule for removal. Therefore, EPA believes that allowing owners to remove, as of October 1, 1993, the low secondary voltage network PCB Transformers located in sidewalk vaults, would allow the owners to first concentrate their resources on removal of the high fire-related risk transformers (which they are required to remove as of October 1, 1990), and then address the lower risk units.

Finally, since the promulgation of the final PCB Transformer Fires Rule, EPA has received comments suggesting that EPA's cost estimates of installing current-limiting fuses are understated. These comments indicate that the average cost estimates are 2 to 4 times higher than the EPA estimates. EPA estimated the cost of installing current-limiting fuses on lower secondary voltage network PCB Transformers to be about $4,000 per transformer and, based on this estimate, EPA calculated that owners of 208/120 network equipment would spend appromixately $37 million to install current-limiting fueses by 1990. EPA received additional comments suggesting that EPA did not take into account sidewalk vault installations requiring substantial redesign or rebuilding, thus raising the cost to $12,000 to $30,000 or more per transformer.

Therefore, EPA is proposing, based on comments received from the regulated community since promulgation of the final PCB Transformer Fires Rule, to require the removal of lower secondary voltage network PCB Transformers in sidewalk vaults by October 1, 1993, instead of requiring enhanced electrical protection on these transformers by October 1, 1990.

While EPA recognizes that allowing the use of this equipment until October 1, 1993 (an additional 3 years), without installing enhanced electrical protection poses some risk, EPA believes that phaseout of an additional class of transformers above those currently required to be phased out, further minimizes the risk of fire-related events involving PCB Transformers. EPA continues to prefer the regulatory option of transformer removal because it completely eliminates PCB Transformer fire-related risk, as well as the risks posed by leaks and spills of PCBs from these transformers. Thus, although there is some risk in allowing additional time to phase out this equipment, EPA believes the benefits of removing these PCB containing transformers from service, thus eliminating any potential risk of PCB exposure, outweighs the risks incurred by allowing the use of these transformers for an additional 3 years. Further, EPA has determined that requiring phaseout of those transformers in sidewalk vaults would be practical since owners of this equipment express an interest in removing rather than installing enhanced electrical protection and EPA has already determined that for this type of equipment some risk reduction measure must be implemented.

F. Discovery of PCB Transformer

In this document, EPA is proposing that in the event a mineral oil transformer assumed to contain less than 500 ppm of PCBs pursuant to § 761.3 is determined through testing to be contaminated at 500 ppm or greater, efforts must be initiated immediately to bring the transformer into compliance. Section 761.3 allows owners of untested mineral oil transformers (that in fact may contain 500 ppm or greater PCBs) to assume they are less than 500 ppm. EPA does not intend to penalize owners who, upon testing, later discover that the transformer actually contains 500 ppm or greater PCBs. However, when such a transformer is discovered to be a PCB Transformer, EPA believes that it should be brought into compliance as quickly

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as possible. EPA proposes a schedule for achieving such compliance if a mineral oil transformer is discovered later to be a PCB Transformer. EPA proposes to require that after discovering that a mineral oil transformer is a PCB Transformer (any transformer that contains 500 ppm PCB or greater) the owner of the transformer comply with the following schedule:

1. Report any fire-related incidents.

2. Mark the transformer, the vault door, machinery room door, fence, hallway or other means of access to the PCB Transformer with the appropriate label, immediately after discovery. Comments received after the promulgation of the PCB Transformer Fires Rule state that owners should be given 48 hours to mark their transformers. EPA solicits comments regarding the length of time needed to comply with the marking requirements once a transformer is found to contain concentrations of 500 ppm or greater PCBs.

3. Register the PCB Transformer with fire response personnel and the building owner within 30 days of discovery.

Comments received after the rule was promulgated suggest that 48 hours (or probably 72 to 96 hours to account for weekends and/or holidays) would be more reasonable in this instance. However, EPA solicits comments regarding the length of time needed to comply with the registration requirement once a mineral oil transformer is found to contain 500 ppm PCB or greater.

4. Install electrical protective equipment on radial PCB Transformers and non-sidewalk vault, lower secondary voltage network PCB Transformers in commercial buildings within 18 months of discovery or by October 1, 1990, whichever is later.

5. Remove non-sidewalk vault, lower secondary voltage network PCB Transformers in commercial buildings if electrical protective equipment is not installed, within 18 months of discovery or by October 1, 1993, whichever is later.

6. Remove lower secondary voltage network PCB Transformers located in sidewalk vaults near commercial buildings, within 18 months of discovery or by October 1, 1993, whichever is later.

EPA proposes to provide options in lieu of the enhanced electrical protection and removal requirements for mineral oil transformers, upon discovering a mineral oil transformer (assumed to contain less than 500 ppm of PCBs) is later tested and found to have concentrations of PCBs at 500 ppm or greater. EPA proposes to allow:

1. Retrofill and reclassification of a radial PCB Tr .nsformer or a lower or higher secondary voltage network PCB Transformer, located in other than sidewalk vaults, in or near a commercial building, within 18 months or by October 1, 1990, whichever is later.

2. Retrofill and reclassification of a lower secondary voltage network PCB Transformer located in sidewalk vaults near commercial buildings, within 18 months or by October 1, 1993, whichever is later.

3. Retrofill and reclassification of higher secondary voltage network PCB Transformers, located in sidewalk vaults near commercial buildings, within 18 months or by October 1, 1990, whichever is later.

IV. Previous Rulemaking Record

1. Official rulemaking record from "Polychlorinated Biphenyls in Electrical Transformers" Final Rule, published in the Federal Register of July 17, 1985, (50 FR 29170).

2. Official Record from "Notice of Interpretation of Transformer Fires Regulations", published in the Federal Register of December 31, 1986, (51 FR 47241).

V. Support Documents

1. USEPA, OPTS, EED, Putnam, Hayes and Bartlett, Inc. "Evaluation of the Sufficiency of Current and Projected PCB Disposal Capacity To Meet Demand Requirements", July 1986.

2. Letters received from:

a. Kansas City Power and Light dated September 11, 1985.

b. Electric Power Board of Chattanooga dated October 3, 1985.

3. Reports from Resource Planning Corporation submitted to Utility Solid Waste Activities Group, dated January 6, 8, and April 23, 1986.

VI. Executive Order 12291

Under Executive Order 12291, issued February 17, 1981, EPA must judge whether a rule is a "major rule" and, therefore, subject to the requirement that a regulatory impact analysis be prepared. EPA has determined that this amendment to the PCB Rule would not be a "major rule" as that term is defined in section 1(b) of the Executive Order and therefore is not subject to the requirement that a regulatory impact analysis be prepared.

While the rule would place some additional restrictions and conditions on the use of PCB Transformers, it is worth noting that this regulation would allow the continued use of PCBs in electrical transformers that would otherwise be prohibited by section 6(e) of TSCA. This rule would avoid the severe disruption of electric service to the public and industry that would occur if the use of this equipment were immediately prohibited. It also would avoid the economic impact that would result from a requirement to replace the equipment as soon as possible.

This rule was submitted to the Office of Management and Budget (OMB), as required by Executive Order 12291.

VII. Regulatory Flexibility Act

Under section 605(b) of the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Administrator may certify that a rule will not, if promulgated have a significant impact on a substantial number of small entities and, therefore, does not require a regulatory flexibility analysis.

In general, this rule will reduce the burden on small businesses that would otherwise be encountered if an immediate ban on PCB-containing transformers were to take effect. If an immediate ban on the use of PCBs in transformers were imposed, large costs would be incurred by all producers and users of electricity, including small businesses.

EPA certifies that this rule will not have a significant economic impact on a substantial number of small entities.

VIII. Paperwork Reduction Act

The Paperwork Reduction Act of 1980 (PRA), 44 U.S.C. 3501 et seq., authorizes the Director of the Office of Management and Budget to review certain information collection requests by Federal agencies. EPA's original request to collect information for this rulemaking was approved under OMB Control Number 2070-0073. EPA has determined that the recordkeeping and reporting requirements of this proposed rule constitute a "collection of information" as defined in 44 U.S.C. 3502(4). Comments on these requirements should be submitted to the Office of Information and Regulatory Affairs of OMB, marked ATTENTION: Desk Officer for EPA. The final rule package will respond to any OMB or public comments on the information collection requirements.

List of Subjects in 40 CFR Part 761

Hazardous substances, Labeling, Polychlorinated biphenyls, Reporting and recordkeeping requirements, Environmental protection.

Dated: August 13, 1987.

Lee M. Thomas,

Administrator.

Therefore it is proposed that 40 CFR Part 761 be amended as follows:

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PART 761—[AMENDED]

1. The authority citation for Part 761 continues to read as follows:

Authority: 15 U.S.C. 2605, 2607, 2614.

2. In § 761.3 by adding the definitions of "emergency situation", "mineral oil PCB Transformer" and "non-PCB Transformer", alphabetically to read as follows:

§ 761.3 Definitions.

* * * * *

"Emergency Situation" for continuing use of "PCB Transformers" exists when:

(1) Neither a non-PCB Transformer or a PCB-Contaminated transformer is currently in storage for reuse or readily available (i.e., available within 24 hours) for installation; and

(2) Immediate replacement is necessary to continue service to utility customers; and

(3) Documentation to support paragraph (1) and (2) of this definition must include, but is not limited to:

(i) The type of transformer that requires replacement.

(ii) The type(s) of transformers that must be used for replacement.

(iii) The date of transformer failure.

(iv) The date of subsequent replacement.

(v) The type of transformer installed as a replacement.

(vi) A statement describing actions taken to locate a non-PCB or PCB-contaminated transformer replacement.

* * * * *

"Mineral oil PCB Transformer" means any transformer orginally designed to contain mineral oil as the dielectric fluid and which has been tested and found to contain 500 ppm or greater PCBs.

* * * * *

"Non-PCB Transformer" means any transformer that contains less than 50 ppm PCB; except that any transformer that has been converted from a PCB Transformer or a PCB-Contaminated transformer cannot be classified as a non-PCB Transformer until reclassification has occured, in accordance with the requirements of § 761.30(a)(2)(v).

* * * * *

3. In § 761.30 by revising paragraphs (a)(1)(iii), and (iv) and adding paragrah (a)(1)(xv) to read as follows:

§ 761.30 Authorizations.

* * * * *

(a) * * *

(1) * * *

(iii) Except as otherwise provided, as of October 1, 1985, the installation of PCB Transformers, which have been placed into storage for reuse or which have been removed from another location, in or near commercial buildings is prohibited. The installation of PCB Transformers on or after the effective date of this regulation, however, and their use thereafter, is permitted either in "emergency situations", as defined in 40 CFR 761.3, or in situations where the transformer has been retrofilled and is being placed into service in order to qualify for reclassification under paragraph (a)(2)(v) of this section. Such emergency installation is permitted until October 1, 1990; and the use of any PCB Transformer installed on such an emergency basis is permitted for one year from the date of installation or until October 1, 1990, whichever is earlier. For purposes of this paragraph, the installation of retrofilled PCB Transformers for purposes of reclassification under paragraph (a)(2)(v) of this section is permitted until October 1, 1990. Retrofilled "mineral oil PCB Transformers" may be installed for reclassification purposes after October 1, 1990. However, once a retrofilled transformer has been installed for reclassification purposes, it must be tested three months after installation to ascertain the concentration of PCBs. If the PCB concentration is below 50 ppm, the transformer can be reclassified as a non-PCB Transformer. If the PCB concentration is between 50 and 500 ppm, the transformer can be reclassified as a PCB-Contaminated transformer. If the PCB concentration remains at 500 ppm or greater, the entire process must either be repeated until the transformer has been reclassified to a non-PCB or PCB-Contaminated transformer in accordance with paragraph (a)(2)(v) of this section or the transformer must be removed from service. All PCB Transformers installed in an emergency situation or installed for retrofill/reclassification purposes are subject to the requirements of Part 761.

(iv)(A) As of October 1, 1990, all radial PCB Transformers, in use in or near commercial buildings, and lower secondary voltage network PCB Transformers not located in sidewalk vaults in or near commercial buildings (network transformers with secondary voltages below 480 volts) that have not been removed from service as provided in paragraph (a)(1)(v) of this section, must be equipped with electrical protection to avoid transformer ruptures caused by high current faults. Current-limiting fuses or other equivalent technology must be used to detect sustained high current faults and provide for complete deenergization of the transformer (within several hundredths of a second in the case of radial PCB Transformers and within tenths of a second in the case of lower secondary voltage network PCB Transformers), before transformer rupture occurs. The installation, setting, and maintenance of current-limiting fuses or other equivalent technology to avoid PCB Transformers ruptures from sustained high current faults must be completed in accordance with good engineering practices.

(B) All lower secondary voltage network PCB Transformers not located in sidewalk vaults (network transformers with secondary voltages below 480 volts), in use in or near commercial buildings, which have not been protected as specified in paragraph (a)(1)(iv)(A) of this section by October 1, 1990, must be removed from service by October 1, 1993.

(C) As of October 1, 1990, owners of lower secondary voltage network PCB Transformers not located in sidewalk vaults which have not been protected as specified in paragraph (a)(1)(iv)(A) of this section must register those transformers with the EPA Regional Administrator in the appropriate region. Information required to be provided to the Regional Administrator in writing shall be:

(1) The specific location of the PCB Transformer(s).

(2) The address(es) of the building(s) and the physical location of the PCB Transformer(s) on the building site(s).

(3) The identification number(s) of the PCB Transformer(s).

(D) As of October 1, 1993, all lower secondary voltage network PCB Transformers located in sidewalk vaults (network transformers with secondary voltages below 480 volts) in use near commercial buildings must be removed from service.

* * * * *

(xv) In the event a mineral oil transformer assumed to contain less than 500 ppm of PCBs pursuant to § 761.3 is tested and found to be contaminated at 500 ppm or greater PCBs, efforts must be initiated immediately to bring the transformer into compliance in accordance with the following schedule:

(A) Reporting fire-related incident, effective immediately after discovery.

(B) Marking of the transformer, effective immediately after discovery.

(C) Marking the vault door, machinery room door, fence, hallway or other means of access to the PCB Transformer: effective immediately after discovery.

(D) Registering the PCB Transformer with fire response personnel with primary jurisdiction and with the

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building owner, within 30 days of discovery.

(E) Installation of electrical protective equipment on radial PCB Transformers and non-sidewalk vault, lower secondary voltage network transformers in or near commercial buildings: within 18 months of discovery or by October 1, 1990, whichever is later.

(F) Removal of non-sidewalk vault, lower secondary voltage network transformers in or near commercial buildings if electrical protective equipment is not installed, within 18 months of discovery or by October 1, 1993, whichever is later.

(G) Removal of lower secondary voltage network PCB Transformers (located in sidewalk vaults) in or near commercial buildings, within 18 months of discovery or by October 1, 1993, whichever is later.

(H) Retrofill and reclassification of a radial PCB Transformer or a lower or higher secondary voltage network PCB Transformer, located in other than sidewalk vaults in or near a commercial building, within 18 months or by October 1, 1990, whichever is later (this is an option in lieu of installing electrical protective equipment on the radial or the lower secondary voltage network PCB Transformers located in other than sidewalk vaults or removing the higher secondary voltage network PCB Transformers or the lower secondary voltage network PCB Transformers, located in sidewalk vaults, from service).

(I) Retrofill and reclassification of a lower secondary voltage network PCB Transformer, located in sidewalk vaults, in or near a commercial building: Within 18 months or by October 1, 1993, whichever is later (this is an option in lieu of installing electrical protective equipment or removing these transformers from service).

(J) Retrofill and reclassification of higher secondary voltage network PCB Transformers (located in sidewalk vaults) in or near a commercial building: within 18 months or by October 1, 1990, whichever is later (this is an option in lieu of other requirements).

* * * * *

§ 761.40 [Amended]

4. In § 761.40 by revising paragraph (j) to read as follows:

§ 761.40 Marking Requirements.

* * * * *

(j)(1) Except as provided in paragraph (j)(2) of this section, as of December 1, 1985, the vault door, machinery room door, fence, hallway, or means of access, other than grates and manhole covers, to a PCB Transformer must be marked with the mark M_L.

(2) A mark other than M_L label can be used provided all of the following conditions are met:

(i) The program using such an alternative label was initiated prior to August 15, 1985, and can be substantiated.

(ii) Prior to August 15, 1985, coordination between the transformer owner and the emergency response personnel occurred and appropriate emergency response personnel know and recognize what the alternative mark means.

(iii) The EPA Regional Administrator in the appropriate region is informed of the use of the alternative label within 30 days of (insert the effective date of this amendment), and is provided with documentation that the program began before August 15, 1985, and that prior to that date the appropriate emergency response organizations knew and recognized the meaning of the mark.

(3) Any mark placed pursuant to this section must be placed so that it can be easily read by firemen fighting a fire involving this equipment.

[FR Doc. 87-19198 Filed 8-20-87; 8:45 am]
BILLING CODE 6560-50-M

T-22

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

AUG 11 1987

REPLY TO ATTN OF: SO-125

AUG 12 1987

PESTICIDES & TOXIC SUBSTANCES BRANCH
EPA REGION 10

Charles J. Murphy
Vice President for Finance
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258

Re: In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Murphy:

I have enclosed the final revised Consent Agreement and Final Order for proposed settlement of the above-referenced matter. Please have the enclosed settlement document signed and returned to me within ten (10) days from the date of this letter. I will then have it signed by the Regional Administrator, and will provide you with a conformed copy of the fully-executed document.

This is the final settlement offer by EPA. If this proposal is unacceptable, the due date for an answer to the complaint is September 8, 1987.

We look forward to hearing from you soon.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

cc: Kermit Rudolph, Esq. (w/encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF: GONZAGA UNIVERSITY, Respondent.	Docket No. 1087-03-16-2615 CONSENT AGREEMENT AND FINAL ORDER

PRELIMINARY STATEMENTS

1. This administrative proceeding for the assessment of a civil penalty was commenced pursuant to Section 16 of the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2615 (1976), by a Complaint and Notice of Opportunity for Hearing issued on April 3, 1987.

2. Complainant is the United States Environmental Protection Agency (EPA) and Respondent is Gonzaga University (Gonzaga).

3. This Consent Agreement and Final Order is entered into by Gonzaga and EPA in accordance with 40 C.F.R. § 22.18 (1986).

FINDINGS OF FACT

4. On January 13, 1987, an EPA inspection was performed at Gonzaga University in Spokane, Washington. The purpose of the inspection

was to determine compliance with TSCA and the regulations pertaining to polychlorinated biphenyls ("PCBs"), 40 C.F.R. Part 761 (1986).

5. Based upon the results of the inspection, EPA issued the Complaint in this matter alleging the following:

A. Failure to properly dispose of PCBs as required by 40 C.F.R. § 761.60;

B. Failure to perform quarterly inspection of PCB transformers as required by 40 C.F.R. § 761.30;

C. Failure to register PCB transformers with the fire department as required by 40 C.F.R. § 761.30;

D. Failure to mark vault doors, PCB transformers, and PCB containers with proper PCB labels as required by 40 C.F.R. § 761.40;

E. Failure to have proper storage areas for PCBs and PCB items as required by 40 C.F.R. § 761.65;

F. Failure to mark PCB articles and containers with the date(s) such articles and containers were placed into storage as required by 40 C.F.R. § 761.65;

G. Failure to dispose of a PCB container within one year of the date it was placed into storage for disposal as required by 40 C.F.R. § 761.65; and

H. Failure to prepare annual documents for 1981 through 1985 as required by 40 C.F.R. § 761.180.

6. Gonzaga was notified of the above-described alleged violations by certified letter dated March 17, 1987.

7. At the informal settlement conference held on May 1, 1987, Gonzaga informed EPA that three of the six PCB transformers which are the

subject matter of the Complaint were properly disposed of by Gonzaga prior to issuance of the Complaint, and that the decisions to dispose of said three transformers had actually been made by Gonzaga prior to the EPA inspection and issuance by EPA of its Complaint. Gonzaga also informed EPA that the remaining three PCB transformers would be properly disposed of in an expeditious manner.

8. At the informal settlement conference, Gonzaga also indicated that appropriate information had been provided to the local fire department regarding the PCB transformers present at Gonzaga University. In addition, Gonzaga demonstrated that the containers which are the subject of claim number 22 in the Complaint were not PCB containers.

9. Based upon the facts set forth in paragraph 8 above, EPA has dismissed claim numbers 13-18 and 21 of the Complaint.

STIPULATIONS

10. The consent of both Gonzaga and EPA to settle this matter on the terms and conditions set forth in this Consent Agreement and Final Order is based upon the following stipulations:

A. In full and complete settlement of this matter, Gonzaga agrees to be bound by the terms of this Consent Agreement and Final Order, and explicitly waives its right to request an adjudicatory hearing regarding any provisions contained herein, or an appeal of this proceeding;

B. EPA has jurisdiction pursuant to TSCA over Gonzaga and this proceeding as set forth in the Complaint;

C. Gonzaga neither admits nor denies the facts as set forth in this Consent Agreement and Final Order;

D. Nothing contained herein is intended to be an admission of liability on the part of Gonzaga; and

E. Gonzaga agrees to pay a civil penalty and perform the actions as set forth below, rather than dispute through extensive and expensive litigation the allegations of the Complaint, in order to bring this matter to a speedy conclusion.

ACTIONS AND CONDITIONS

11. EPA agrees to remit part of the assessed civil penalty on the condition that Gonzaga performs the following actions according to the requirements and time periods specified.

A. To the extent it has not already done so, Gonzaga shall properly remove and dispose of the following PCB transformers:

(1) Wagner Electric, serial number 5L11375

(2) Wagner Electric, serial number 5L11374

(3) Wagner Electric, serial number 5L11376

(4) Allis Chalmers, serial number 2680317

(5) Allis Chalmers, serial number 2680319

(6) Allis Chalmers, serial number 2680318

Gonzaga shall provide EPA with a copy of the disposal manifest for all six transformers within six (6) months from the date of this Consent Agreement and Final Order. Such removal and disposal shall be completed in accordance with 40 C.F.R. § 761.60. Gonzaga shall also provide EPA with a copy of the certificate(s) of disposal for the six PCB transformers within one (1) year from the date of this Consent Agreement and Final Order. EPA will remit $20,000.00 of the assessed civil penalty in exchange for timely and satisfactory completion of the actions outlined in this paragraph.

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B. Gonzaga shall develop and implement an outreach program relating to PCB transformers in buildings and the risk of fire for Spokane, Washington. Such a program shall include the following:

(1) The development of material, in coordination with Washington Water Power and EPA, to be provided to entities in Spokane, Washington, which potentially have PCB transformers. These entities are all of the facilities within the Spokane metropolitan area that potentially have PCB transformers and that Gonzaga has identified in coordination with Washington Water Power and the Spokane Fire Department. The materials would include:

(a) Current PCB regulations and any current proposed amendments to the PCB regulations;

(b) A description of the requirements for registration of PCB transformers with the Spokane Fire Department, including a sample form containing all of the required information for such registration; and

(c) Other informational material regarding the hazards of PCBs, and in particular regarding the hazards of PCBs involved in fire situations.

(2) Follow-up, by telephone, to each entity to determine whether or not they have PCB transformers, either known PCB transformers or transformers that one is required to assume to be PCB transformers. Gonzaga will determine if the PCB transformers are registered with the Spokane Fire Department, and will assist the entity with this

registration if not already accomplished. Gonzaga will also assist the entity with questions regarding the PCB regulations, in coordination with EPA, if necessary.

C. Gonzaga will share the results of the program outlined in paragraph B above with the Spokane Fire Department, including providing them with information developed concerning the potential PCB hazards in the City of Spokane. This will include the following:

(1) Verification that all PCB transformers identified through this program are registered with the Spokane Fire Department; and

(2) Verification that Spokane Fire Department has a system in place to identify whether or not there are PCB transformers at fire locations, and that this information is readily available and would be provided to fire response personnel involved in fighting fires.

D. Gonzaga shall complete the program outlined in paragraphs B and C above and certify such completion to EPA within six months from the date of this Consent Agreement and Final Order. This certification will include the following:

(1) A summary of the results of the program, including the total number of PCB transformers identified. (Gonzaga will not be required to provide to EPA the identity of facilities having PCB transformers); and

(2) A summary of the program that the Spokane Fire Department has in place for registration of PCB transformers, and for providing this information to fire response personnel directly involved in fighting fires.

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E. EPA will remit $6,825.00 of the assessed civil penalty in exchange for timely and satisfactory performance of the actions set forth in paragraphs B, C, and D, above.

Dated: _____ GONZAGA UNIVERSITY

Dated: August 11, 1987 U.S. ENVIRONMENTAL PROTECTION AGENCY

FINAL ORDER

12. Pursuant to the authority of Section 16(a)(2) of TSCA, 15 U.S.C. § 2615(a)(2)(1976), based upon the Preliminary Statements, Findings of Fact, Actions and Conditions and Stipulations set forth above, which are hereby adopted and made a part hereof, and upon consideration of the nature, circumstances, extent, and gravity of the alleged violations, and, with respect to Gonzaga, the ability to pay, effect on ability to continue to do business, degree of culpability, and extent of cooperation, and after consideration of the entire record herein, IT IS HEREBY ORDERED that Gonzaga be assessed a penalty in the amount of TWENTY-NINE THOUSAND THREE HUNDRED AND TWENTY-FIVE DOLLARS ($29,325), of which TWENTY-SIX THOUSAND EIGHT HUNDRED AND TWENTY-FIVE DOLLARS ($26,825) shall be remitted by EPA upon the condition that Gonzaga completes the requirements specified in the Actions and Conditions section, paragraph 11, infra, according to the time periods set forth therein. Payment of the remaining penalty amount ($2,500) shall be made by Gonzaga within thirty (30) days of entry of this

Final Order according to the terms specified below.

13. Should Gonzaga fail to meet any of the requirements of this Final Order and, within ten (10) days after being notified of such failure, should Gonzaga fail to satisfy this Final Order by compliance with all such requirements, or by providing a justification for noncompliance which is acceptable to EPA, EPA will make written demand for payment of the assessed or remitted penalty, or such parts thereof as may be deemed appropriate by EPA, plus interest, and such amount shall be due and paid to EPA within ten (10) days of receipt of such written demand. It is the understanding and intention of the parties, in this paragraph 13, that the actions to be taken by Gonzaga, for the purpose of achieving the remission of parts of the assessed civil penalty, shall be treated independently of each other. For example, once Gonzaga has made timely and satisfactory completion of the action outlined in Paragraph 11A., thereafter no demand will be made by EPA pertaining to the remitted penalty specified for the Paragraph 11A. action.

14. Interest shall accrue and be paid by Gonzaga on any portion of the $26,825 amount which is not remitted by EPA and/or of the $2,500 amount which is overdue in accordance with the terms of paragraph 12 infra, and this Consent Agreement and Final Order. Such interest shall accrue from the date on which notice is first mailed by EPA to Gonzaga. All interest due shall be at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717 (1983). In addition, a late payment processing and handling charge of $20.00 will be imposed after thirty (30) days, with an additional charge of $10.00 for each subsequent thirty (30)-day period over which an unpaid balance remains. Also, a six (6) percent a year

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penalty will be applied on any principal amount not paid within ninety (90) days of the date such amount is due in accordance with the terms of this Consent Agreement and Final Order.

15. Payment of any penalty due pursuant to the terms of this Final Order shall be made by certified check or cashier's check payable to the United States Treasurer and sent to the following:

U.S. Environmental Protection Agency
(Region 10 Hearing Clerk)
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

With a copy of the transaction sent to:

Regional Hearing Clerk
Office of Regional Counsel
EPA Region 10
1200 Sixth Avenue, SO-125
Seattle, Washington 98101

IT IS SO ORDERED.

THIS FINAL ORDER is duly entered and shall become effective immediately.

Dated this _____day of _____, 1987.

_____
ROBIE G. RUSSELL
Regional Administrator
EPA Region 10

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12-8-76 DOJ

Hedgebeth

AT-093

ROBERT D DELLWO
KERMIT M RUDOLF
RICHARD J SCHROEDER
TERRY W MARTIN
DENNIS A DELLWO
ROBERT J ROBERTS
GARY T FARRELL
ROBERT C SCANLON

LAW OFFICES
DELLWO, RUDOLF & SCHROEDER
A PROFESSIONAL SERVICE CORPORATION
424 OLD NATIONAL BANK BUILDING
SPOKANE, WASHINGTON 99201-0386
(509) 624-4291

OF COUNSEL
PAUL A. CLAUSEN

RECEIVED
AUG 0 6 1987
OFFICE OF REGIONAL COUNSEL
EPA - REGION X

August 4, 1987

Mr. Richard Mednick
Asst. Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

Re: Your file SO-125
In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Mednick:

With reference to our telephone conversation, enclosed is a proposed addition to paragraph 13, which I drafted in an effort to clear up what I thought might be differing interpretations of paragraph 13. If this is satisfactory with you, would you please add it to paragraph 13 in your revised draft.

Yours respectfully,

Kermit M. Rudolf
Corporation Counsel
Gonzaga University

KMR jb

Enc.
cc Charles J. Murphy

PROPOSED ADDITION TO PARAGRAPH 13

It is the understanding and intention of the parties, in this paragraph 13, that the actions to be taken by Gonzaga, for the purpose of achieving the remission of parts of the assessed civil penalty, shall be treated independently of each other. For example, once Gonzaga has made timely and satisfactory completion of the action outlined in Paragraph 11A., thereafter no demand will be made by EPA pertaining to the remitted penalty specified for the Paragraph 11A. action.

ROBERT D. DELLWO
KERMIT M. RUDOLF
RICHARD J. SCHROEDER
TERRY W. MARTIN
DENNIS A. DELLWO
ROBERT J. ROBERTS
GARY T. FARRELL
ROBERT C. SCANLON

LAW OFFICES
DELLWO, RUDOLF & SCHROEDER
A PROFESSIONAL SERVICE CORPORATION
424 OLD NATIONAL BANK BUILDING
SPOKANE, WASHINGTON 99201-0386
(509) 624-4291

OF COUNSEL
PAUL A. CLAUSEN

RECEIVED
AUG 0 5 1987
OFFICE OF REGIONAL COUNSEL
EPA - REGION X

August 3, 1987

Mr. Richard Mednick
Asst. Regional Counsel
U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

Re: Your file SO-125
In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Mednick:

This letter is with further reference to your letter of July 15, 1987 to Mr. Murphy in which you sent him a proposed consent agreement in final order in the above entitled matter. It is my understanding that Mr. Murphy discussed this matter with you and that you agreed to make certain changes in the format of the agreement.

After reviewing further the proposed agreement which you sent, I have several additional changes which I would like to request you make. I have a telephone call in to you at this time, and would like to discuss at least some of these matter with you by telephone, but I will send my requests in this letter in case there should be delay in our getting together by telephone.

Enclosed is a sheet on which appears a proposed additional paragraph which is marked as subparagraph D and which it is requested you insert as a subparagraph to paragraph 10 on page 3. Insertion of this subparagraph D will result in the existing subparagraphs D and E being renumbered to E and F.

It is requested that you add to the last sentence of paragraph 7 the following language:

", and that the decision to dispose of said three transformers had actually been made by Gonzaga prior to the EPA inspection and issuance by EPA of its complaint."

It is requested that subparagraph D (to be redesignated subparagraph E) to paragraph 10 be amended to read as follows:

"E. Gonzaga agrees to pay a civil penalty and perform the actions as set forth below, rather than disputing through expensive and extensive litigation the allegations of the complaint, in order to bring this matter to a speedy conclusion."

It is requested that you give me a call at your convenience so that we may discuss this matter further. Thank you.

Yours respectfully,

KMR jb

Kermit M. Rudolf
Corporation Counsel
for Gonzaga University

cc Charles J. Murphy

D. Nothing contained herein is intended to be an admission of liability on the part of Gonzaga; and to the contrary, at the informal settlement conference Gonzaga presented its position that it has an outstanding safety record which has been nationally recognized, that it had endeavored to comply and thought that it was substantially complying with federal regulations addressing the use and/or disposal of PCBs, that uncertainties and questions exist as to whether at least some of the transformers and containers referred to in the Complaint in fact were PCB Transformers or Containers, that no untoward event had occurred involving the Gonzaga facilities, and that any violations of regulations were technical in nature only.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JUL 31 1987

REPLY TO
ATTN OF: SO-125

Charles J. Murphy
Vice President for Finance
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258

Re: In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Murphy:

I have enclosed the revised proposed Consent Agreement and Final Order for settlement of the above-referenced matter. Please have the enclosed settlement document signed and returned to me within ten (10) days from the date of this letter. I will then have it signed by the Regional Administrator, and will provide you with a conformed copy of the fully-executed document.

It was a pleasure speaking with you last week. We appreciate your continued cooperation in this matter.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF: GONZAGA UNIVERSITY, Respondent.	Docket No. 1087-03-16-2615 CONSENT AGREEMENT AND FINAL ORDER

PRELIMINARY STATEMENTS

1. This administrative proceeding for the assessment of a civil penalty was commenced pursuant to Section 16 of the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2615 (1976), by a Complaint and Notice of Opportunity for Hearing issued on April 3, 1987.

2. Complainant is the United States Environmental Protection Agency (EPA) and Respondent is Gonzaga University (Gonzaga).

3. This Consent Agreement and Final Order is entered into by Gonzaga and EPA in accordance with 40 C.F.R. § 22.18 (1986).

FINDINGS OF FACT

4. On January 13, 1987, an EPA inspection was performed at Gonzaga University in Spokane, Washington. The purpose of the inspection

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was to determine compliance with TSCA and the regulations pertaining to polychlorinated biphenyls ("PCBs"), 40 C.F.R. Part 761 (1986).

5. Based upon the results of the inspection, EPA issued the Complaint in this matter alleging the following:

A. Failure to properly dispose of PCBs as required by 40 C.F.R. § 761.60;

B. Failure to perform quarterly inspection of PCB transformers as required by 40 C.F.R. § 761.30;

C. Failure to register PCB transformers with the fire department as required by 40 C.F.R. § 761.30;

D. Failure to mark vault doors, PCB transformers, and PCB containers with proper PCB labels as required by 40 C.F.R. § 761.40;

E. Failure to have proper storage areas for PCBs and PCB items as required by 40 C.F.R. § 761.65;

F. Failure to mark PCB articles and containers with the date(s) such articles and containers were placed into storage as required by 40 C.F.R. § 761.65;

G. Failure to dispose of a PCB container within one year of the date it was placed into storage for disposal as required by 40 C.F.R. § 761.65; and

H. Failure to prepare annual documents for 1981 through 1985 as required by 40 C.F.R. § 761.180.

6. Gonzaga was notified of the above-described alleged violations by certified letter dated March 17, 1987.

7. At the informal settlement conference held on May 1, 1987, Gonzaga informed EPA that three of the six PCB transformers which are the

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subject matter of the Complaint were properly disposed of by Gonzaga prior to issuance of the Complaint. Gonzaga also informed EPA that the remaining three PCB transformers would be properly disposed of in an expeditious manner.

8. At the informal settlement conference, Gonzaga also indicated that appropriate information had been provided to the local fire department regarding the PCB transformers present at Gonzaga University. In addition, Gonzaga demonstrated that the containers which are the subject of claim number 22 in the Complaint were not PCB containers.

9. Based upon the facts set forth in paragraph 8 above, EPA has dismissed claim numbers 13-18 and 21 of the Complaint.

STIPULATIONS

10. The consent of both Gonzaga and EPA to settle this matter on the terms and conditions set forth in this Consent Agreement and Final Order is based upon the following stipulations:

A. In full and complete settlement of this matter, Gonzaga agrees to be bound by the terms of this Consent Agreement and Final Order, and explicitly waives its right to request an adjudicatory hearing regarding any provisions contained herein, or an appeal of this proceeding;

B. EPA has jurisdiction pursuant to TSCA over Gonzaga and this proceeding as set forth in the Complaint;

C. Gonzaga neither admits nor denies the facts as set forth in this Consent Agreement and Final Order; and

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D. Gonzaga agrees to pay a civil penalty and perform the actions as set forth below.

ACTIONS AND CONDITIONS

11. EPA agrees to remit part of the assessed civil penalty on the condition that Gonzaga performs the following actions according to the requirements and time periods specified.

A. To the extent it has not already done so, Gonzaga shall properly remove and dispose of the following PCB transformers:

(1) Wagner Electric, serial number 5L11375

(2) Wagner Electric, serial number 5L11374

(3) Wagner Electric, serial number 5L11376

(4) Allis Chalmers, serial number 2680317

(5) Allis Chalmers, serial number 2680319

(6) Allis Chalmers, serial number 2680318

Gonzaga shall provide EPA with a copy of the disposal manifest for all six transformers within six (6) months from the date of this Consent Agreement and Final Order. Such removal and disposal shall be completed in accordance with 40 C.F.R. § 761.60. Gonzaga shall also provide EPA with a copy of the certificate(s) of disposal for the six PCB transformers within one (1) year from the date of this Consent Agreement and Final Order. EPA will remit $20,000.00 of the assessed civil penalty in exchange for timely and satisfactory completion of the actions outlined in this paragraph.

B. Gonzaga shall develop and implement an outreach program relating to PCB transformers in buildings and the risk of fire for Spokane,

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Washington. Such a program shall include the following:

(1) The development of material, in coordination with Washington Water Power and EPA, to be provided to entities in Spokane, Washington, which potentially have PCB transformers. These entities are all of the facilities within the Spokane metropolitan area that potentially have PCB transformers and that Gonzaga has identified in coordination with Washington Water Power and the Spokane Fire Department. The materials would include:

(a) Current PCB regulations and any current proposed amendments to the PCB regulations;

(b) A description of the requirements for registration of PCB transformers with the Spokane Fire Department, including a sample form containing all of the required information for such registration; and

(c) Other informational material regarding the hazards of PCBs, and in particular regarding the hazards of PCBs involved in fire situations.

(2) Follow-up, by telephone, to each entity to determine whether or not they have PCB transformers, either known PCB transformers or transformers that one is required to assume to be PCB transformers. Gonzaga will determine if the PCB transformers are registered with the Spokane Fire Department, and will assist the entity with this

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registration if not already accomplished. Gonzaga will also assist the entity with questions regarding the PCB regulations, in coordination with EPA, if necessary.

C. Gonzaga will share the results of the program outlined in paragraph B above with the Spokane Fire Department, including providing them with information developed concerning the potential PCB hazards in the City of Spokane. This will include the following:

(1) Verification that all PCB transformers identified through this program are registered with the Spokane Fire Department; and

(2) Verification that Spokane Fire Department has a system in place to identify whether or not there are PCB transformers at fire locations, and that this information is readily available and would be provided to fire response personnel involved in fighting fires.

D. Gonzaga shall complete the program outlined in paragraphs B and C above and certify such completion to EPA within six months from the date of this Consent Agreement and Final Order. This certification will include the following:

(1) A summary of the results of the program, including the total number of PCB transformers identified. (Gonzaga will not be required to provide to EPA the identity of facilities having PCB transformers); and

(2) A summary of the program that the Spokane Fire Department has in place for registration of PCB transformers, and for providing this information to fire response personnel directly involved in fighting fires.

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E. EPA will remit $6,825.00 of the assessed civil penalty in exchange for timely and satisfactory performance of the actions set forth in paragraphs B, C, and D, above.

Dated: _____

GONZAGA UNIVERSITY

Dated: July 31, 1987

U.S. ENVIRONMENTAL PROTECTION AGENCY

FINAL ORDER

12. Pursuant to the authority of Section 16(a)(2) of TSCA, 15 U.S.C. § 2615(a)(2)(1976), based upon the Preliminary Statements, Findings of Fact, Actions and Conditions and Stipulations set forth above, which are hereby adopted and made a part hereof, and upon consideration of the nature, circumstances, extent, and gravity of the alleged violations, and, with respect to Gonzaga, the ability to pay, effect on ability to continue to do business, degree of culpability, and extent of cooperation, and after consideration of the entire record herein, IT IS HEREBY ORDERED that Gonzaga be assessed a penalty in the amount of TWENTY-NINE THOUSAND THREE HUNDRED AND TWENTY-FIVE DOLLARS ($29,325), of which TWENTY-SIX THOUSAND EIGHT HUNDRED AND TWENTY-FIVE DOLLARS ($26,825) shall be remitted by EPA upon the condition that Gonzaga completes the requirements specified in the Actions and Conditions section, paragraph 11, infra, according to the

time periods set forth therein. Payment of the remaining penalty amount ($2,500) shall be made by Gonzaga within thirty (30) days of entry of this Final Order according to the terms specified below.

13. Should Gonzaga fail to meet any of the requirements of this Final Order and, within ten (10) days after being notified of such failure, should Gonzaga fail to satisfy this Final Order by compliance with all such requirements, or by providing a justification for noncompliance which is acceptable to EPA, EPA will make written demand for payment of the assessed or remitted penalty, or such parts thereof as may be deemed appropriate by EPA, plus interest, and such amount shall be due and paid to EPA within ten (10) days of receipt of such written demand.

14. Interest shall accrue and be paid by Gonzaga on any portion of the $26,825 amount which is not remitted by EPA and/or of the $2,500 amount which is overdue in accordance with the terms of paragraph 12 infra, and this Consent Agreement and Final Order. Such interest shall accrue from the date on which notice is first mailed by EPA to Gonzaga. All interest due shall be at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717 (1983). In addition, a late payment processing and handling charge of $20.00 will be imposed after thirty (30) days, with an additional charge of $10.00 for each subsequent thirty (30)-day period over which an unpaid balance remains. Also, a six (6) percent a year penalty will be applied on any principal amount not paid within ninety (90) days of the date such amount is due in accordance with the terms of this Consent Agreement and Final Order.

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12-8-76 DOJ

15. Payment of any penalty due pursuant to the terms of this Final Order shall be made by certified check or cashier's check payable to the United States Treasurer and sent to the following:

U.S. Environmental Protection Agency
(Region 10 Hearing Clerk)
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

With a copy of the transaction sent to:

Regional Hearing Clerk
Office of Regional Counsel
EPA Region 10
1200 Sixth Avenue, SO-125
Seattle, Washington 98101

IT IS SO ORDERED.

THIS FINAL ORDER is duly entered and shall become effective immediately.

Dated this _____day of _____, 1987.

_____
ROBIE G. RUSSELL
Regional Administrator
EPA Region 10

RECEIVED
AUG 03 1987
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

Hedgebeth

AT-093

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JUL 30 1987

REPLY TO
ATTN OF: SO-125

Charles Murphy
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258

Re: In the Matter of Gonzaga University
TSCA Docket No. 1087-03-16-2615

Dear Mr. Murphy:

Enclosed is a conformed copy of the fourth Motion, Stipulation, and Order for Extension of Time in the above-referenced matter. This extension should provide sufficient time to finalize settlement of this matter.

We appreciate your continued cooperation.

Sincerely,

Richard Mednick
Assistant Regional Counsel

cc: Hearing Clerk (w/orig. encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF: GONZAGA UNIVERSITY, Respondent.	Docket No. 1087-03-16-2615 MOTION, STIPULATION, AND ORDER FOR EXTENSION OF TIME TO FILE ANSWER

MOTION AND STIPULATION

The parties in the above-entitled matter jointly request and stipulate that the time for Respondent to file an answer be extended in order to allow the parties sufficient time to finalize terms for settlement of this matter.

Dated: July 30, 1987

[signature] for Charles Murphy
per conversation of July 24, 1987
FOR RESPONDENT

Dated: July 30, 1987

[signature]
FOR EPA

Form OBD-183
12-8-76 DOJ

ORDER

In accordance with 40 C.F.R. §§22.07(b) and 22.16(c) and pursuant to the parties' approval by the signature(s) affixed above, the time for Respondent to file an answer is extended to the close of business on the 8th day of September, 1987.

Dated: July 30, 1987

ROBIE G. RUSSELL
REGIONAL ADMINISTRATOR

Kristy Ann Thomsen (acting)
By Direction
Hearing Clerk, EPA Region 10

Form OBD-183
12-8-76 DOJ

Hedgelock

AT-093

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EPA REGION 10

DCC

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JUL 15 1987

REPLY TO ATTN OF: SO-125

RECEIVED
JUL 16 1987
PESTICIDES & TOXIC SUBSTANCES BRANCH
EPA REGION 10

Charles J. Murphy
Vice President for Finance
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258

Re: In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Murphy:

I have enclosed a proposed Consent Agreement and Final Order for settlement of the above-referenced matter. If you believe that the enclosed settlement document accurately reflects the agreement we have reached, please have it signed and returned to me within twenty (20) days from the date of this letter. I will then have it signed by the Regional Administrator, and will provide you with a conformed copy of the fully-executed document.

If you have any questions, please call me at (206) 442-1797. Thank you for your cooperation in this matter.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF:	Docket No. 1086-03-16-2615
GONZAGA UNIVERSITY,	CONSENT AGREEMENT AND FINAL ORDER
Respondent.	

PRELIMINARY STATEMENTS

1. This administrative proceeding for the assessment of a civil penalty was commenced pursuant to Section 16 of the Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2615 (1976), by a Complaint and Notice of Opportunity for Hearing issued on April 3, 1987.

2. Complainant is the United States Environmental Protection Agency (EPA) and Respondent is Gonzaga University (Gonzaga).

3. This Consent Agreement and Final Order is entered into by Gonzaga and EPA in accordance with 40 C.F.R. § 22.18 (1986).

FINDINGS OF FACT

4. On January 13, 1987, an EPA inspection was performed at Gonzaga University in Spokane, Washington. The purpose of the inspection

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12-8-76 DOJ

was to determine compliance with TSCA and the regulations pertaining to polychlorinated biphenyls ("PCBs"), 40 C.F.R. Part 761 (1986).

5. Based upon the results of the inspection, EPA issued the Complaint in this matter alleging the following:

A. Failure to properly dispose of PCBs as required by 40 C.F.R. § 761.60;

B. Failure to perform quarterly inspection of PCB transformers as required by 40 C.F.R. § 761.30;

C. Failure to register PCB transformers with the fire department as required by 40 C.F.R. § 761.30;

D. Failure to mark vault doors, PCB transformers, and PCB containers with proper PCB labels as required by 40 C.F.R. § 761.40;

E. Failure to have proper storage areas for PCBs and PCB items as required by 40 C.F.R. § 761.65;

F. Failure to mark PCB articles and containers with the date(s) such articles and containers were placed into storage as required by 40 C.F.R. § 761.65;

G. Failure to dispose of a PCB container within one year of the date it was placed into storage for disposal as required by 40 C.F.R. § 761.65; and

H. Failure to prepare annual documents for 1981 through 1985 as required by 40 C.F.R. § 761.180.

6. Gonzaga was notified of the above-described alleged violations by certified letter dated March 17, 1987.

7. At the informal settlement conference held on May 1, 1987, Gonzaga informed EPA that three of the six PCB transformers which are the

subject matter of the Complaint were properly disposed of by Gonzaga prior to issuance of the Complaint. Gonzaga also informed EPA that the remaining three PCB transformers would be properly disposed of in an expeditious manner.

8. At the informal settlement conference, Gonzaga also indicated that appropriate information had been provided to the local fire department regarding the PCB transformers present at Gonzaga University. In addition, Gonzaga demonstrated that the containers which are the subject of claim number 22 in the Complaint were not PCB containers.

9. Based upon the facts set forth in paragraph 8 above, EPA has dismissed claim numbers 13-18 and 21 of the Complaint.

STIPULATIONS

10. The consent of both Gonzaga and EPA to settle this matter on the terms and conditions set forth in this Consent Agreement and Final Order is based upon the following stipulations:

A. In full and complete settlement of this matter, Gonzaga agrees to be bound by the terms of this Consent Agreement and Final Order, and explicitly waives its right to request an adjudicatory hearing regarding any provisions contained herein, or an appeal of this proceeding;

B. EPA has jurisdiction pursuant to TSCA over Gonzaga and this proceeding as set forth in the Complaint;

C. Gonzaga neither admits nor denies the facts as set forth in this Consent Agreement and Final Order;

D. Gonzaga agrees to pay a civil penalty and perform the actions as set forth below; and

Gonzaga Events deleted

E. For the purposes of calculating and assessing penalties for future violations of TSCA, if any, Gonzaga agrees that this Consent Agreement and Final Order is a "final order" as required by the "PCB Penalty Policy, " 45 Fed. Reg. 59770, 59773 (September 10, 1980), for the purposes of demonstrating a "history of prior such violations" as provided in Section 16 of TSCA, 15 U.S.C. § 2615 (1976).

ACTIONS AND CONDITIONS

11. EPA agrees to remit part of the assessed civil penalty on the condition that Gonzaga performs the following actions according to the requirements and time periods specified.

A. To the extent it has not already done so, Gonzaga shall properly remove and dispose of the following PCB transformers:

(1) Wagner Electric, serial number 5L11375

(2) Wagner Electric, serial number 5L11374

(3) Wagner Electric, serial number 5L11376

(4) Allis Chalmers, serial number 2680317

(5) Allis Chalmers, serial number 2680319

(6) Allis Chalmers, serial number 2680318

Gonzaga shall provide EPA with a copy of the disposal manifest for all six transformers within six (6) months from the date of this Consent Agreement and Final Order. Such removal and disposal shall be completed in accordance with 40 C.F.R. § 761.60. Gonzaga shall also provide EPA with a copy of the certificate(s) of disposal for the six PCB transformers within one (1) year from the date of this Consent Agreement and Final Order;

B. Gonzaga shall develop and implement an outreach program relating to PCB transformers in buildings and the risk of fire for Spokane, Washington. Such a program shall include the following:

(1) The development of material, in coordination with Washington Water Power and EPA, to be provided to entities in Spokane, Washington, which potentially have PCB transformers. These entities are all of the facilities within the Spokane metropolitan area that potentially have PCB transformers and that Gonzaga has identified in coordination with Washington Water Power, the Spokane Fire Department, ~~and the Building Owners and Managers Association (BOMA).~~ The materials would include:

delete

(a) Current PCB regulations and any current proposed amendments to the PCB regulations;

(b) A description of the requirements for registration of PCB transformers with the Spokane Fire Department, including a sample form containing all of the required information for such registration; and

(c) Other informational material regarding the hazards of PCBs, and in particular regarding the hazards of PCBs involved in fire situations.

(2) Follow-up, by telephone, to each entity to determine whether or not they have PCB transformers, either known PCB transformers or transformers that one is required to assume to be PCB transformers. Gonzaga will determine if the PCB transformers are registered

with the Spokane Fire Department, and will assist the entity with this registration if not already accomplished. Gonzaga will also assist the entity with questions regarding the PCB regulations, in coordination with EPA, if necessary.

C. Gonzaga will share the results of the program outlined in paragraph B above with the Spokane Fire Department, including providing them with information developed concerning the potential PCB hazards in the City of Spokane. This will include the following:

(1) Verification that all PCB transformers identified through this program are registered with the Spokane Fire Department; and

(2) Verification that Spokane Fire Department has a system in place to identify whether or not there are PCB transformers at fire locations, and that this information is readily available and would be provided to fire response personnel involved in fighting fires.

D. Gonzaga shall complete the program outlined in paragraphs B and C above and certify such completion to EPA within six months from the date of this Consent Agreement and Final Order. This certification will include the following:

(1) A summary of the results of the program, including the total number of PCB transformers identified. (Gonzaga will not be required to provide to EPA the identity of facilities having PCB transformers); and

(2) A summary of the program that the Spokane Fire Department has in place for registration of PCB transformers, and for

providing this information to fire response personnel directly involved in fighting fires.

Dated:_____ _____
GONZAGA UNIVERSITY

Dated: July 15, 1987 [signature]
U.S. ENVIRONMENTAL PROTECTION AGENCY

FINAL ORDER

12. Pursuant to the authority of Section 16(a)(2) of TSCA, 15 U.S.C. § 2615(a)(2)(1976), based upon the Preliminary Statements, Findings of Fact, Actions and Conditions and Stipulations set forth above, which are hereby adopted and made a part hereof, and upon consideration of the nature, circumstances, extent, and gravity of the alleged violations, and, with respect to Gonzaga, the ability to pay, effect on ability to continue to do business, and degree of culpability, degree of cooperation and after consideration of the entire record herein, IT IS HEREBY ORDERED that Gonzaga be assessed a penalty in the amount of TWENTY-NINE THOUSAND THREE HUNDRED AND TWENTY-FIVE DOLLARS ($29,325), of which TWENTY-SIX THOUSAND EIGHT HUNDRED AND TWENTY-FIVE DOLLARS ($26,825) shall be remitted by EPA upon the condition that Gonzaga completes the requirements specified in the Actions and Conditions section, paragraph 11, infra, according to the time periods set forth therein. Payment of the remaining penalty amount ($2,500) shall be made by Gonzaga within thirty (30) days of entry of this Final Order according to the terms specified below.

Wants broken down

13. Should Gonzaga fail to meet any of the requirements of this Final Order and, within ten (10) days after being notified of such failure, should Gonzaga fail to satisfy this Final Order by compliance with all such requirements, or by providing a justification for noncompliance which is acceptable to EPA, EPA will make written demand for payment of the assessed or remitted penalty, or such parts thereof as may be deemed appropriate by EPA, plus interest, and such amount shall be due and paid to EPA within ten (10) days of receipt of such written demand.

14. Interest shall accrue and be paid by Gonzaga on any portion of the $26,825 amount which is not remitted by EPA and/or of the $2,500 amount which is overdue in accordance with the terms of paragraph 12 infra, and this Consent Agreement and Final Order. Such interest shall accrue from the date on which notice is first mailed by EPA to Gonzaga. All interest due shall be at the rate established by the Secretary of the Treasury pursuant to 31 U.S.C. § 3717 (1983). In addition, a late payment processing and handling charge of $20.00 will be imposed after thirty (30) days, with an additional charge of $10.00 for each subsequent thirty (30)-day period over which an unpaid balance remains. Also, a six (6) percent a year penalty will be applied on any principal amount not paid within ninety (90) days of the date such amount is due in accordance with the terms of this Consent Agreement and Final Order.

15. Payment of any penalty due pursuant to the terms of this Final Order shall be made by certified check or cashier's check payable to the United States Treasurer and sent to the following:

Form OBD-183
12-8-76 DOJ

U.S. Environmental Protection Agency
(Region 10 Hearing Clerk)
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

With a copy of the transaction sent to:

Regional Hearing Clerk
Office of Regional Counsel
EPA Region 10
1200 Sixth Avenue, SO-125
Seattle, Washington 98101

IT IS SO ORDERED.

THIS FINAL ORDER is duly entered and shall become effective immediately.

Dated this _____day of _____, 1987.

_____
ROBIE G. RUSSELL
Regional Administrator
EPA Region 10

Form OBD-183
12-8-76 DOJ

Hedgebeth
AT-093

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

JUN 11 1987

REPLY TO
ATTN OF: SO-125

RECEIVED
JUN 11 1987
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

Charles Murphy
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258

Re: In the Matter of Gonzaga University
TSCA Docket No. 1086-03-16-2615

Dear Mr. Murphy:

Enclosed is a conformed copy of the third Motion, Stipulation, and Order for Extension of Time in the above-referenced matter. I would also like to confirm that you will be providing a project proposal by next week as part of the settlement effort in this matter.

We appreciate your continued cooperation and look forward to hearing from you.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

cc: Hearing Clerk (w/orig. encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF:	
GONZAGA UNIVERSITY,	Docket No. 1087-03-16-2615
Respondent.	MOTION, STIPULATION, AND ORDER FOR EXTENSION OF TIME TO FILE ANSWER

MOTION AND STIPULATION

The parties in the above-entitled matter jointly request and stipulate that the time for Respondent to file an answer be extended in order to allow the parties sufficient time to exchange information and attempt to resolve the matter.

Dated: June 10, 1987

Richard Jelinek for Charles Murphy per conversation of 6/10/87
FOR RESPONDENT

Dated: June 10, 1987

Richard Jelinek
FOR EPA

Form OBD-183
12-8-76 DOJ

ORDER

In accordance with 40 C.F.R. §§22.07(b) and 22.16(c) and pursuant to the parties' approval by the signature(s) affixed above, the time for Respondent to file an answer is extended to the close of business on the 31st day of July, 1987.

Dated: June 10, 1987

ROBIE G. RUSSELL
REGIONAL ADMINISTRATOR

Patricia M. Sugiura
By Direction
Hearing Clerk, EPA Region 10

Form OBD-183
12-8-76 DOJ

Hedgebeth
AT-093

Call from Chuck Murphy, Gonzaga University, (509) 328-4220 to Bill Hedgebeth

6-9-87, 9:14 a.m.

Chuck Murphy and Ken Sammons

- completed some of the work identifying some of the transformers in Spokane area - worked with Washington Water Power

- all downtown network transformers are below 500 ppm - owned by Washington Water Power

- identified 16-20 different entities that may have PCB or PCB-contaminated transformers (including government agencies and hospital (VA Hospital?)

- Ken has made tentative calls to some of these entities - seems to be good awareness on part of people involved - would like info they could supply

- present thinking - w/ list of companies, work with Washington Water Power - providing them the information, recommended forms for use for recordkeeping, drafting a letter they could submit to fire department regarding registration - serving as a resource to them - given discussions with entities and WWP, didn't think a seminar would be that valuable, already good awareness of PCBs

- Bill suggested putting formal proposal in writing (within next week) - will discuss with Richard Mednick, have him get back re extension - need to include confirmation of fire department's understanding of rules and what to do with them

9:20 - discussed with Richard Mednick - agreed on July 31 extension for filing answer - Richard will call Murphy and send letter

PROPOSED CONSENT AGREEMENT TERMS FOR GONZAGA UNIVERSITY

1798K

copy gave to Richard 6-26-87

1.	Assessed Penalty	$29,325
2.	Credit for Early Disposal of PCB Transformers	$20,000
3.	Cash Penalty Payment	$ 2,500
4.	Good Works Project	$ 6,825

Agreement and Schedule

The parties agree that, in settlement of the action initiated by the Complaint, to achieve compliance with TSCA, and to warrant remittance and mitigation of the proposed penalties, the following action shall be completed:

(a) Respondent shall properly remove and dispose of the following PCB Transformers:

(i) Wagner Electric, serial number 5L11375

(ii) Wagner Electric, serial number 5L11374

(iii) Wagner Electric, serial number 5L11376

(iv) Allis Chalmers, serial number 2680317

(v) Allis Chalmers, serial number 2680319

(vi) Allis Chalmers, serial number 2680318

Respondent shall provide EPA with a copy of the disposal manifest within six

(6) months of from the date of th Consent Agreement and Order. ch removal and disposal shall be completed in accordance with 40 C.F.R. § 761.60. Respondent shall provide EPA with a copy of the certificate(s) of disposal for the six PCB Transformers within one (1) year of the date of this Consent Agreement and Order;

(b) Respondent shall develop and implement an outreach program relating to PCB Transformers in Buildings and the Risk of Fire for Spokane, Washington. Such program will include the following:

(i) The development of material, in coordination with Washington Water Power and the Environmental Protection Agency, to be provided to entities in Spokane, Washington, which potentially have PCB Transformers. These entities are all of the facilities within the Spokane metropolitan area that potentially have PCB Transformers and that Respondent has identified in coordination with Washington Water Power, the Spokane Fire Department, and the Building Owners and Managers Association (BOMA). These materials would include:

(A) Current PCB Regulations and any current proposed amendments to the PCB Regulations.

(B) A description of the requirements for registration of PCB Transformers with the Spokane Fire Department, including a sample form containing all of the required information for such registration.

(C) Other informational materials regarding the hazards of PCBs, and in particular regarding the hazards of PCBs involved in

fire situations.

(ii) The follow-up, by telephone, to each entity to determine whether or not they have PCB Transformers, either known PCB Transformers or transformers that one is required to assume to be PCB Transformers. Respondent will determine if the PCB Transformers are registered with the Spokane Fire Department, and will assist the entity with this registration if not already accomplished. Respondent will assist the entity with questions regarding the PCB Regulations, in coordination with EPA, if necessary.

(iii) Respondent will share the results of their program with the Spokane Fire Department, including providing them with the information they have developed concerning the potential PCB hazards in the City of Spokane. This will include the following:

(A) Verification that all PCB Transformers identified through this program are registered with the Spokane Fire Department.

(B) Verification that Spokane Fire Department has a system in place to identify whether or not there are PCB Transformers at fire locations, and that this information is readily available and would be provided to fire response personnel involved in fighting fires.

(iv) Respondent will complete this program within six months from the date of this Consent Agreement and Order. Respondent will certify to EPA that the program is completed. This certification will include the following:

(A) A summary of the results of the program,

including the total number of PCB Transformers identified. (Respondent will not be required to provide to EPA the identity of facilities having PCB Transformers.)

(B) A summary of the program that the Spokane Fire Department has in place for registration of PCB Transformers, and for providing fire response personnel directly involved in fighting a fire with this information.

Satisfactory completion of all actions required by this Agreement and Schedule will result in mitigation of the assessed penalty by TWENTY SIX THOUSAND EIGHT HUNDRED AND TWENTY FIVE DOLLARS ($26,825).

GONZAGA UNIVERSITY

June 10, 1987

Mr. William H. Hedgebeth
Environmental Protection Agency
1200 6th Avenue
Seattle, WA 98101

Dear Bill:

As discussed on June 9, 1987, we have spent a considerable amount of time making contacts in the Spokane area in order to determine how we might best serve the community in order to gain program credit towards our alleged violations. A considerable amount of time was spent with the Washington Water Power Company determining those entities with potential PCB transformers. A list of fifteen to twenty entities were identified, and from this list a sample was selected for a needs assessment.

Based upon this needs assessment, we would like to propose the following:

1. That materials be developed with the assistance of the Washington Water Power Company and the EPA concerning:
   - current regulations
   - documentation and record keeping requirements
   - registration requirements with the Fire Department
   - other informational materials on the hazards of PCBs
2. That these materials be sent to entities with potential PCB transformers.
3. That a telephonic follow-up be made to each entity to determine their situation and how the University might be of assistance to them.
4. That any entity with PCB transformers be instructed to contact the Washington Water Power Company to request assistance in a plan to remove these transformers from service.
5. That the results of our program be shared with the Fire Department for their education and information concerning potential PCB hazards in the city of Spokane.

SPOKANE, WASHINGTON 99258-0001 • (509) 328-4220

I must reiterate our strong desire not to be put in a position of providing the EPA with a list of possible violators. As I am sure you can appreciate, this would put the University in a very awkward situation within our community.

I look forward to hearing from you regarding our extension and your approval of our program credit proposal.

Sincerely,

Charles J. Murphy
Vice President for Finance

CJM:ch

cc: Fr. Coughlin
Kermit Rudolf
Ken Sammons

5-22-87

Richard –

I talked with Ken Sammons from Gonzaga U. today. He has continued discussions with Washington Water Power who is interested in working with Gonzaga on this project – they want to be a partner. They have not pinned down anything specific yet. They have also discussed matter with Fire Depts & their sense is that Fire Depts. are not aware of requirements or, if so, are not aware of formats required or are not sure why it is of concern to fire men. There is a new person at Spokane F.D. who is trying to get program back on line.

Also, one of the problems they are finding is a reluctance on fire depts part to tell owners of transformers they should test for PCB

They expect to have something positive to propose in next week or so – possibly program/seminar directed towards fire prevention officials and getting fire prevention officials on board with this program. Gonzaga had also talked to GE who had put on similar program in Oregon

I wasn't keen on seminar but I think the interface with utility and Fire Department may be real valuable. We talk to you when I get back.

BN

Ken Gonzaga 5-22 8:30 am

- want to assist University
  be partner w/

- position response f/ Wash Water Pu
  - talker w/ fire depts
  - fire dept. didn't have offence for
    or were unaware of potential
    hazards

- Capt. Sweetland / Hayes
  Capt Stapleton

  promotion - get program back on
  line

- program / seminar for fire officials
  - fire prevention I don't want
    to tell
  - GE had put on seminar

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

MAY 12 1997

REPLY TO
ATTN OF: SO-125

Kermit M. Rudolf
Dellwo, Rudolf & Schroeder, P.S.
424 Old National Bank Building
Spokane, Washington 99201-0386

Re: In the Matter of Gonzaga University
TSCA Docket No. 1086-03-16-2615

Dear Mr. Rudolf:

Enclosed is a conformed copy of the second Motion, Stipulation, and Order for Extension of Time in the above-referenced matter. In addition, in response to your request at our settlement conference, the following documents are also enclosed:

1. Consolidated Rules of Practice governing the Administrative Assessment of Civil Penalties and the Revocation or Suspension of Permits, 40 C.F.R. §§22.01-22.37 (1986);

2. Background paper on the major provisions of Superfund Reauthorization; and

3. Consent Agreement and Final Order (example).

We look forward to hearing from you soon regarding the EPA settlement proposal in this matter.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

cc: Hearing Clerk (w/orig. encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF:	)	
	)	
GONZAGA UNIVERSITY,	)	Docket No. 1087-03-16-2615
	)	
Respondent.	)	MOTION, STIPULATION, AND ORDER
	)	FOR EXTENSION OF TIME TO FILE ANSWER

MOTION AND STIPULATION

The parties in the above-entitled matter jointly request and stipulate that the time for Respondent to file an answer be extended in order to allow the parties sufficient time to attempt to resolve the matter.

Dated: May 11, 1987

[signature] for Kermit Rudolf per conversation of 5/11/87
FOR RESPONDENT

Dated: May 11, 1987

[signature]
FOR EPA

Form OBD-183
12-8-76 DOJ

ORDER

In accordance with 40 C.F.R. §§22.07(b) and 22.16(c) and pursuant to the parties' approval by the signature(s) affixed above, the time for Respondent to file an answer is extended to the close of business on the 15th day of June, 1987.

Dated: May 12, 1987

ROBIE G. RUSSELL
REGIONAL ADMINISTRATOR

Patricia A. Sugimura
By Direction
Hearing Clerk, EPA Region 10

Form OBD-183
12-8-76 DOJ

Hedgebeth

AT-093

RECEIVED
MAY 12 1987
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

Chuck Murphy

5-12
~3p.m.

had mtg w/ Pres
- acceptable to him
- draft consent agreement

But - what we need is
program suggestion from

have motion to extend to
May 17

need proposal
by June 85

Chuck
Mm

(b) (6)

(b) (6)

5-7 1:30

Chuck Murphy / Gonzaga U.

- appreciate attitude / willingness to work with yr

- have not had a chance to review proposal w/ Pres

- have mtg scheduled next Tuesday and hope to have go ahead

- Ken still kicking around re programmatic - gathering data.

- run by Gr

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

MAY 4 1987

REPLY TO ATTN OF: M/S AT-093

Charles J. Murphy
Vice President for Finance
Gonzaga University
Spokane, Washington 99258-0001

Dear Mr. Murphy:

I appreciated the opportunity to meet with you on May 1. I am enclosing the documents you requested at our conference in Seattle.

A check with Superfund personnel has shown that there is as yet no brochure describing the Superfund Amendments and Reauthorization Act (SARA).

We look forward to hearing from you.

Sincerely,

William M. Hedgebeth

William M. Hedgebeth
Environmental Protection Specialist
Toxic Substances Section

Enclosures

Notes of Bill Hedgebeta

Gonzaga University 5-1-87

EPA
- Bill H
- Richard Medwick

Gonzaga U.
- Charles Murphy
- Ken Simmons
- Kermit Rudolf

Richard M. made introductory comments. - described procedural items.

Kermit -
- 100th yr
- projecting $90,000 budget deficit this yr.
- Nat'l Safety Council rates univ. as #1 this year in campus safety
- were already planning on disposal of 6 trans.
- spent/ $22,000 plus staff time to correction of
  or committed items in complaint and to disposal of items referred to
- (3 trans and 1 drum) - GE
- found 1 small PCB cont in lab - disposed of prop
- other 3 trans scheduled to be disposed of by May 13
- do not feel there were leaks
- FD ~~[illegible]~~ inspects annually
- GE will not accept leaking transformers

Re Violations 1-6

Ken - showed photos of vault after cleanup Crosby Hall
- prior to cleanup, accumulation of dust -
- was residual fluid from 1978 sampling, but no current leak.
- used solvent - Briggs Electric ~~[illegible]~~ did actual cleanup
- behind steel vault door - limited access - Gonyaga personnel does not service - no floor drains - entirely internal to library.
- When transformers were removed and placed into drums until GE collected
- GE did not sample
- nameplate listed tradenames for PCBs.

Madonna Hall
- sample bottles from Transformer Consultants were stored, deteriorated, and leaked
- curbed area existed
- Briggs ~~Stratton~~ Electric cleaned up area, Jan 1983, also after Mike's inspection
- will be disposed of by May 13
- currently stored / labeled / dated
- other containers placed in horse trough
- also askarel tr

Storage room - 12' x 20' - 4" curb

- WISHA inspected 1983 and 1985 - specifically called in re sample bottles - did not want employees exposed - WISHA said they had no problems

- based on seminar in Nov '84, began talking to vendors re retrofit or removal - decided to remove because of stoves of fires in bldgs. - determined not risk of jeopardizing library collection, or dormitory (health risk)

- had bid from Westinghouse, summer of '86 for disposal - did not have sufficient money to complete - holding pen would have been gone.

Kermit - risk to people

- re Q.I. - had annual fire inspections, have reports from fire department, had 2 WISHA inspections, had insurance inspections

- Ken looks at bldgs periodically, looks at least quarterly, - he has taken care of inspectors through

Charles - after believe liquid was residue from 1978 sampling

- on Madonna - would only need ~~qu~~ annual inspections

Kermit - Ken has servicing history.

Ken - has servicing records from Transformer Consultants for all work done on PCB Transformer

Re Vios 13-18

- Eng. Co. 2 has performed annual inspections

- fire dept was aware that fire dept. was aware that transformers were askarel - come usually in 1985 - were specifically told they were PCB liquid - Hazardous Materials Branch and Alarm Board

Kermit - Ken, after insp., did officially write FD giving status of PCB Trans - followed up after 1st 3 were disposed of - will follow up again after last 3 are disposed of.

Re Vio 19-20

- Chuck - can't dispute were not marked
- access limited by locked door and gate

Ken - GE ~~did~~ disposed of as Pyranol.

Re Vio 22 -
- drain was just a sump, not a drain to sewer

Charles - room 12' x 20' with 4" curbing - potential liquid content would not have exceeded ~~a~~ containment volume in worst case scenario

- did purchase horse troughs next day and placed 2 PCB containers in horse trough. 8 gallons in transformer - total of 23 gallons maximum of liquid in storage area.

Ken - access limited - concrete floor - also temporarily placed DDT - also had some asbestos

Charles - aware of environmental problems and have acted responsibly

Vio 23 —
— did not propose vio — accumulating waste sufficient quantity to dispose
~~Vio 24~~ of — were attempting to arrange w/ vendor for disposal
Vio -24-
Re Vio 25- 29

- got copy of AR

- Charles - service records do not show need to replace fluid in transformer that was leaking.

Kermit - could have furnished exact picture of PCBs on campus in documents he had - misunderstanding of technical requirement -

	$102,000.	
Vios 1-6 - Disp	20	
mitigate 1/2 - containment, lack of access, very limited potential exposure	- 15,000	-20,000
	87,000	
	$5,000 each	82,000
Vios 7-12 QI		
mitigate 2/3 — inspection program in place, not formalized — several different agencies inspected	- 12,000	- 12,000
	75,000	70,000
Vio 13-18 - Reg w/ Fire Dept. dismiss - Fire Dept regularly inspecting (once a year) - also Gonzaga told FD in '85 that units were as Rural.	- 18,000	- 18,000
	57,000	52,000
Vio 19 stay		
Vio 20 stay		
Vio 21 dismiss - new mineral oil	- 1,500	- 1,500
	55,500	50,500
Vio 22 - mitigate 2/3 - technical vio re 4" curb - had ~~adequate~~ enough containment	- 1,000	- 1,000
	54,500	49,500

	54,500	49,500
Vio 23 stand		
Vio 24 stand		
Vio 25. - mitigate 1/2	- 15,000	-15,000
- had infraction - in organized form - wt not converted		
		$34,500
	39,500	
		- 5,175
- 15% good faith efforts	- 5,925	
		$29,325
	33,575	
		3950
Early disposal of PCB Transformers (by May 13)	-20,000	1975
	13,575	5925
Cash penalty	- 3,575	
	10,000	-20,000
		9,325
Good works project	- 10,000	
	0	cash penalty 2,500
		6,825
		good works →

- Fire regs outreach in Spokane

  - work with Fire Dept. – Verify Fire Dept's registration program
  - identify PCB Transformers in City of Spokane
  - verify registration with Fire Dept. Spokane County ?

Info Sources
- Utilities
- Fire Dept.
- BOMA

  - providing all owners of PCB Transformers with copy of Fire Regs, and pamphlet, and PCB Regulations
  - providing all owners of commercial bldgs having PCB Transformers in or near their bldgs w/ pamphlet

Provide EPA with final report

Identify scrap and salvage dealers in Spokane County

- deal in electrical equipment
- deal in light ballasts
- deal in home appliances
  - remove small electrical capacitors or trans?
  - shredded on site?
  - what is done with shredding residue?

Identify oil recyclers in Spokane County

- Where do they get oil?
- What is ~~the~~ original source of oil?
- What do they do with oil?
- Is any burned? What kind of furnace?

Gonzaga —

— collection center Spokane County?

- early disposal

? - carbon monoxide / Spokane

? - asbestos

- fires resp outreach in Spokane

- fluorescent light ballasts dispose of

- Submit Annual Reports

- disposal certification for PCB Transf.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

APR 24 1987

REPLY TO
ATTN OF: SO-125

Charles Murphy
Gonzaga University
E. 502 Boone Avenue
Spokane, Washington 99258

Re: In the Matter of Gonzaga University
Docket No. 1087-03-16-2615

Dear Mr. Murphy::

I have enclosed a copy of the Motion, Stipulation, and Order for Extension of Time in the above-referenced matter. I would also like to confirm that we have scheduled an informal settlement conference for Friday, May 1, 1987, to begin at 9:30 am. here in the EPA office in Seattle.

Bill Hedgebeth and I look forward to our upcoming meeting. If you have any questions prior to that time, please call me at (206) 442-1797.

Sincerely,

Richard Mednick
Assistant Regional Counsel

Enclosure

cc: Hearing Clerk (w/orig. encl.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

IN THE MATTER OF:	
GONZAGA UNIVERSITY,	Docket No. 1087-03-16-2615
Respondent.	MOTION, STIPULATION, AND ORDER FOR EXTENSION OF TIME TO FILE ANSWER

MOTION AND STIPULATION

The parties in the above-entitled matter jointly request and stipulate that the time for Respondent to file an answer be extended in order to allow the parties sufficient time to hold an informal settlement conference and attempt to resolve the matter.

Dated: April 23, 1987

[signature] for Charles Murphy per conversation of 4-23-87
FOR RESPONDENT

Dated: April 23, 1987

[signature]
FOR EPA

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ORDER

In accordance with 40 C.F.R. §§22.07(b) and 22.16(c) (1986) and pursuant to the parties' approval by the signature(s) affixed above, the time for Respondent to file an answer is extended to the close of business on the 15th day of May, 1987.

Dated: April 24, 1987

ROBIE G. RUSSELL
REGIONAL ADMINISTRATOR

Patricia M. Sugiura
By Direction
Hearing Clerk, EPA Region 10

Form OBD-183
12-8-76 DOJ

Hedgebeth

AT-093

RECEIVED
APR 27 1987
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

APR 8 1987

REPLY TO ATTN OF: SO 125

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

The Reverend Bernard Coughlin, President
Gonzaga University
E 502 Boone
Spokane, Washington 99258

Re: Toxic Substances Control Act
Docket No. 1087-03-16-2615

Dear Father Coughlin:

Enclosed you will find a Complaint and Notice of Opportunity for Hearing. A copy of the regulations and Rules of Practice applicable to this proceeding are also enclosed. You are hereby advised to read this document carefully and communicate your answer within the time limit specified.

The Complaint alleges that Gonzaga University violated the disposal, use, marking, storage, and recordkeeping provisions of the PCB Regulations issued pursuant to the Toxic Substances Control Act. Accordingly, it is of considerable importance that you attend to this matter forthwith.

You are allowed twenty (20) days to formally answer the complaint unless you request and receive a written extension of time. However, we would like to informally discuss the alleged violations and proposed penalties. Such discussions may result in settlement which would make the filing of a formal answer unnecessary.

Richard Mednick, Attorney, is knowledgeable about this subject and can be reached at (206) 442-1797.

Sincerely,

Anita J. Frankel

Anita J. Frankel, Chief
Pesticides and Toxic Substances Branch

Enclosures

cc: John A. Foley, EPA Headquarters

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 10, 1200 Sixth Avenue, M/S 613
Seattle, Washington 98101

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Complainant, vs. GONZAGA UNIVERSITY, Respondent.	NO. 1087-03-16-2615 NOTICE OF LEGAL PROCEEDINGS; NOTICE OF EPA COMPLAINT; AND NOTICE OF OPPORTUNITY FOR HEARING, AND FOR SETTLEMENT MEETING

THE REGIONAL ADMINISTRATOR EPA REGION 10 TO THE FOLLOWING RESPONDENT:

Gonzaga University
E 502 Boone
Spokane, Washington 99258

YOU ARE HEREBY GIVEN NOTICE AS FOLLOWS:

1. Administrative proceedings have been commenced against you by the U.S. Environmental Protection Agency ("EPA").

2. You are hereby NOTIFIED of, and served with, the ATTACHED TRUE COPY of a COMPLAINT filed in these proceedings. It explains EPA's claims for civil penalties proposed to be adjudged against you.

3. The signed original of the attached COMPLAINT is filed with the EPA Regional Hearing Clerk, SO 125, Park Place Bldg., 1200 Sixth Avenue, Seattle, King County, Washington, 98101, Phone No. (206) 442-1141.

4. The ATTACHED COMPLAINT is a claim by EPA for civil penalties to be assessed against you. Adjudicative proceedings to that end are controlled by the "Consolidated Rules of Practice" (copy attached to the Complaint) appearing in Title 40, Code of Federal Regulations, Part 22 (1986).

5. You have a RIGHT TO A HEARING BEFORE AN ADMINISTRATIVE LAW JUDGE:

A. To contest any material allegation of the attached penalty COMPLAINT which you genuinely deny; and/or

B. To contest the amount and appropriateness of the civil penalties proposed in the COMPLAINT.

However, TO OBTAIN A HEARING YOU MUST FILE A WRITTEN RESPONSE to the COMPLAINT called an "Answer."

6. YOU HAVE ONLY TWENTY (20) CALENDAR DAYS (if you choose to respond) from the day you receive this Notice within which to file a WRITTEN RESPONSE to the attached COMPLAINT. Such a written response or "Answer" must be filed by having it DELIVERED ON TIME to the EPA Hearing Clerk (address in paragraph 3). Copies of all papers filed by you must be delivered at the same time (by mail or otherwise) to the EPA attorney whose name appears below in paragraph 10.

7. ANY SUCH WRITTEN RESPONSE YOU FILE TO THE COMPLAINT MUST:

A. Request a hearing on the Complaint (or your right to request a hearing on the Complaint is deemed waived); and

B. Contain clear and direct admissions, denials, and/or explanations with respect to each of the allegations of the Complaint; and

C. Contain a definite statement of any facts which you contend constitute grounds for defense against the penalty liability stated in the Complaint; and

D. Contain a concise statement of all material facts relating to allegations in the Complaint which you intend to place in issue at a hearing.

8. IF YOU FILE A LATE WRITTEN RESPONSE, OR IF YOU OMIT ENTIRELY FILING ANY WRITTEN RESPONSE, YOU ARE SUBJECT TO THE ENTRY OF AN ORDER OF DEFAULT on the Complaint. After an order of default, penalties can be adjudged and imposed on you without any further notice to you.

9. AN INFORMAL SETTLEMENT MEETING can be held at your request. You may discuss there:

A. Whether or not the violations alleged truly occurred; and/or

B. The amount and appropriateness of any civil penalty considering: the size of your institution, the gravity of any such violations, the effect of civil penalties on your ability to continue your programs, and any other appropriate factors.

Such a meeting might resolve matters by a settlement which would make a hearing unnecessary.

10. In order to arrange an informal settlement meeting you must contact the following EPA attorney at (206) 442-1797, SO 125, 1200 Sixth Avenue, Seattle, Washington 98101: Richard Mednick, not later than twenty (20) calendar days from receipt hereof.

11. PLEASE TAKE NOTICE that an EXTENSION OF TIME to make and file your written response may be negotiated with the EPA attorney named above. If an agreement is reached to extend time, a written stipulation and an agreed order will be entered in accordance with 40 C.F.R. §22.16(c) (1986).

ISSUED AT SEATTLE this 3rd day of April, 1987.

Anita J. Frankel

ANITA J. FRANKEL, Chief
Pesticides and Toxic Substances Branch

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGIONAL ADMINISTRATOR
Region 10
Seattle, Washington

In the Matter of:	)	DOCKET NO. 1087-03-16-2615
	)	
GONZAGA UNIVERSITY,	)	
	)	COMPLAINT
Respondent.	)	
	)	

I.

JURISDICTION

1. This is an administrative action instituted pursuant to Section 16(a) of the Toxic Substances Control Act, 15 U.S.C. §2615(a) (1976), (hereinafter "TSCA"), for the assessment of a civil penalty. The complainant is Region 10, United States Environmental Protection Agency (hereinafter "EPA"). Complainant has reason to believe that the above-named respondent has violated federal regulations addressing the use and/or disposal of polychlorinated biphenyls (PCBs) (40 CFR Part 761 et seq. (1986) promulgated under Section 6 of TSCA, 15 U.S.C. §2605 (1976)), and thereby has violated Section 15 of TSCA, 15 U.S.C. §2614 (1976).

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II.

FINDINGS AND VIOLATIONS

2. On January 13, 1987, an EPA inspection was performed at Gonzaga University, Spokane, Washington. The purpose of the inspection was to determine compliance with TSCA, 15 U.S.C. §2601 et seq., and the PCB regulations. The inspection disclosed the violations set forth below:

CLAIM NUMBERS ONE THROUGH SIX

3. REGULATION - DISPOSAL: 40 C.F.R. §761.60(d) (1986) states that spills and other uncontrolled discharges of PCBs at concentrations of 50 ppm or greater constitute the disposal of PCBs. PCBs resulting from the cleanup and removal of spills, leaks, or other uncontrolled discharges, must be disposed of in accordance with 40 C.F.R. §761.60(a) (1986). Disposal of PCBs in any other manner constitutes the improper disposal of PCBs.

4. VIOLATIONS ONE THROUGH SIX: The following PCB Transformers were leaking at the time of the inspection. The PCBs were not cleaned up and properly disposed of in accordance with 40 C.F.R. §761.60 (1986):

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VIOLATION ONE: Wagner Electric, serial number 5L11375.

VIOLATION TWO: Wagner Electric, serial number 5L11374.

VIOLATION THREE: Wagner Electric, serial number 5L11376.

VIOLATION FOUR: Allis Chalmers, serial number 2680317.

VIOLATION FIVE: Allis Chalmers, serial number 2680319.

VIOLATION SIX: Allis Chalmers, serial number 2680318.

CLAIM NUMBERS SEVEN THROUGH TWELVE

5. REGULATION - QUARTERLY INSPECTIONS: 40 C.F.R. §§ 761.30(a)(1)(ix), (x), and (xii) (1986) requires that owners of PCB Transformers in use or stored for reuse:

a) visually inspect each PCB Transformer at least once every three months;

b) record all leaks and initiate cleanup within 48 hours of a leak's being observed; and

c) maintain records of the inspections and servicing history.

The use of PCB Transformers, as outlined in 40 C.F.R. Part 761 *et seq.* (1986), is allowed only if the persons using that equipment comply with these steps. A visual inspection is allowed annually if containment equaling 100% of the liquid volume in the transformer is present.

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6. VIOLATIONS SEVEN THROUGH TWELVE: No quarterly inspections have been performed on the following PCB Transformers in violation of 40 C.F.R. §761.30 (1986):

VIOLATION SEVEN:	Wagner Electric, serial number 5L11375.
VIOLATION EIGHT:	Wagner Electric, serial number 5L11374.
VIOLATION NINE:	Wagner Electric, serial number 5L11376.
VIOLATION TEN:	Allis Chalmers, serial number 2680317.
VIOLATION ELEVEN:	Allis Chalmers, serial number 2680319.
VIOLATION TWELVE:	Allis Chalmers, serial number 2680318.

CLAIM NUMBERS THIRTEEN THROUGH EIGHTEEN

7. REGULATION - REGISTRATION OF PCB TRANSFORMERS: 40 C.F.R. §761.30(a)(vi) (1986) states that as of December 1, 1985, all PCB Transformers (including PCB Transformers in storage for reuse) must be registered with fire response personnel with primary jurisdiction (that is, the fire department or fire brigade which would normally be called upon for the initial response to a fire involving the equipment). Information required to be provided to fire response personnel includes:

(a) The location of the PCB Transformer(s) (the address(es) of the building(s) and the physical location of the PCB Transformer(s) on the building site(s) and for outdoor PCB Transformer(s), the location of the outdoor substation).

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(b) The principal constituent of the dielectric fluid in the transformer(s) (e.g., PCBs, mineral oil, or silicone oil).

(c) The name and telephone number of the person to contact in the event of a fire involving the equipment.

8. VIOLATIONS THIRTEEN THROUGH EIGHTEEN: The following PCB Transformers were not registered with the Spokane Fire Department in violation of 40 C.F.R. §761.30 (1986):

VIOLATION THIRTEEN:	Wagner Electric, serial number 5L11375.
VIOLATION FOURTEEN:	Wagner Electric, serial number 5L11374.
VIOLATION FIFTEEN:	Wagner Electric, serial number 5L11376.
VIOLATION SIXTEEN:	Allis Chalmers, serial number 2680317.
VIOLATION SEVENTEEN:	Allis Chalmers, serial number 2680319.
VIOLATION EIGHTEEN:	Allis Chalmers, serial number 2680318.

CLAIM NUMBERS NINETEEN AND TWENTY

9. REGULATION - MARKING: 40 C.F.R. §761.40(a)(2) (1986) requires that all PCB Transformers be marked in accordance with 40 C.F.R. §761.45 (1986). Each mark must be placed in a position on the exterior of the PCB Item so that it can be easily read by any person inspecting or servicing the marked PCB Item.

10. **REGULATION - MARKING:** 40 C.F.R. §761.40(j) (1986) states that as of December 1, 1985, the vault door, machinery room door, fence, hallway, or means of access (other than grates and manhole covers) to a PCB Transformer must be marked with the PCB label. The mark must be placed so that it can be easily read by firemen fighting a fire involving this equipment.

11. **VIOLATION NINETEEN:** Neither the vault door leading to the following PCB Transformers, nor the PCB Transformers themselves, located in the Crosby Library, were marked with the required PCB label in violation of 40 C.F.R. §761.40 (1986):

Wagner Electric, serial number 5L11375.
Wagner Electric, serial number 5L11374.
Wagner Electric, serial number 5L11376.

12. **VIOLATION TWENTY:** Neither the vault door leading to the following PCB Transformers, nor the PCB Transformers themselves, located in Madonna Hall, were marked with the required PCB label in violation of 40 C.F.R. §761.40 (1986):

Allis Chalmers, serial number 2680317.
Allis Chalmers, serial number 2680319.
Allis Chalmers, serial number 2680318.

CLAIM NUMBER TWENTY-ONE

13. REGULATION - MARKING: 40 C.F.R. §761.40 (1986) requires that all PCB Containers be marked with the required PCB label.

14. VIOLATION TWENTY-ONE: There were two PCB Containers in the PCB storage for disposal area that were not marked with the required label in violation of 40 C.F.R. §761.40 (1986). The PCB Containers were five gallon cans containing used oil indicating the possibility of PCB content and dated 12/19/82.

CLAIM NUMBER TWENTY-TWO

15. REGULATION - STORAGE: 40 C.F.R. §761.65(b) (1986) requires that any facility used for the storage of PCBs and PCB Items designated for disposal have:

a) adequate walls and roof to prevent rainwater from reaching the stored PCBs and PCB Items;

b) adequate floor constructed of continuous smooth and impervious materials with a continuous curbing a minimum six inches high; and

c) no drain valves, floor drains and other openings that would permit liquids to flow from curbed area.

16. VIOLATION TWENTY-TWO: The PCB storage for disposal area, located in Saint Catherine Monica dormitory, did not meet the requirements for such storage areas in violation of 40 C.F.R. §761.65 (1986). The curb was only four inches high, and there was a drain in the storage area. At the time of the inspection, there were at least two PCB Containers containing liquids assumed to contain PCBs (See paragraph 14 herein), one PCB Container (70 gallon overpack containing cleanup material from two years ago), and one PCB-contaminated transformer stored in the area.

CLAIM NUMBER TWENTY-THREE

17. REGULATION - STORAGE: 40 C.F.R. §761.65(c)(8) (1986) requires that PCB Articles and Containers be dated on the article or container when they are placed in storage.

18. VIOLATION TWENTY-THREE: None of the PCBs or PCB Items in storage for disposal at the Saint Catherine Monica dormitory were marked with the date they were placed into storage for disposal in violation of 40 C.F.R. §761.65 (1986).

CLAIM NUMBER TWENTY-FOUR

19. REGULATION - STORAGE: 40 C.F.R. §761.65(a) (1986) states that any PCB Article or PCB Container stored for disposal before January 1, 1983, shall be removed from storage and disposed of as required before January 1, 1984. Any PCB Article or PCB Container stored for disposal after January 1, 1983, shall be removed from storage and disposed of as required within one year of the date when it was first placed into storage.

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20. VIOLATION TWENTY-FOUR: A PCB Container containing PCB cleanup material (70 gallon steel overpack drum) was not disposed of within one year of the date it was placed into storage for disposal. Two PCB Containers containing used oil, which had been in storage since December 19, 1982, were not disposed of by January 1, 1984. All are in violation of 40 C.F.R. §761.65 (1986).

CLAIM NUMBERS TWENTY-FIVE THROUGH TWENTY-NINE

21. REGULATION - RECORDS & MONITORING: 40 C.F.R. §761.180(a) (1986) requires that, beginning July 2, 1978, facilities using or storing at one time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB Container(s), or one or more PCB Transformers, or 50 or more PCB Large High or Low Voltage Capacitors, develop and maintain records on the disposition of the PCBs and PCB Items. The records shall form the basis of an annual document prepared by July 1, covering the previous calendar year. The annual document shall include:

a) 1) The dates when PCBs and PCB Items are:

i) removed from service,

ii) placed into storage for disposal,

iii) placed into transport for disposal;

2) the quantities of PCBs and PCB Items removed from service including:

i) total weight in kilograms of PCBs contained in PCB Containers, with the identification of content in the containers,

ii) total number of PCB Transformers and total weight in kilograms of PCBs contained in the transformers,

iii) total number of PCB Large High or Low Voltage Capacitors;

3) the location of the initial disposal or storage facility for PCBs and PCB Items removed from service;

b) Total quantities of PCBs and PCB Items remaining in service at the end of the calendar year, including:

1) total weight in kilograms of any PCBs and PCB Items in PCB Containers, with the identification of content in the containers,

2) total number of PCB Transformers and total weight in kilograms of PCBs in the transformers,

3) total number of PCB Large High or Low Voltage Capacitors.

22. <u>VIOLATIONS TWENTY-FIVE THROUGH TWENTY-NINE</u>: There were no PCB Annual Documents for the past five years (1981-1985) in violation of 40 C.F.R. §761.180 (1986).

III.

PROPOSED CIVIL PENALTY

23. Section 16 of TSCA, 15 U.S.C. §2615 (1976), and the regulations promulgated thereunder, 40 C.F.R. §761 et seq. (1986), authorize a civil penalty of up to $25,000.00 per day for each violation of TSCA. Based on the facts given in Section II above, the nature, circumstances, extent and gravity of the above-cited violations, and degree of culpability, the following penalties are hereby proposed:

	Regulation	Requirement	Penalty Amount
1-6.	40 C.F.R. §761.60(d)	Disposal (leaking)	$30,000
7-12.	40 C.F.R. §761.30(a)(xii)	Quarterly Inspections	$18,000
13-18.	40 C.F.R. §761.30(a)(vi)	Registration of PCB Transformers	$18,000
19.	40 C.F.R. §761.40(a)(2)	Marking	$ 1,500
20.	40 C.F.R. §761.40(a)(2)	Marking	$ 1,500
21.	40 C.F.R. §761.40	Marking	$ 1,500
22.	40 C.F.R. §761.65(b)	Storage for disposal	$ 1,500
23.	40 C.F.R. §761.65(c)(8)	Storage (dating)	$ 0*
24.	40 C.F.R. §761.65(a)	Storage (dispose of by January 1, 1984)	$ 0*
25-29.	40 C.F.R. §761.180(a)	Annual Reports (1981-1985)	$30,000
		TOTAL	$102,000

*Same type of violation, same location as Violation 22

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24. Payment of such penalty shall be by check made payable to the United States Treasurer, remitted to the following:

Environmental Protection Agency, Region 10
(Regional Hearing Clerk)
P.O. Box 360903M
Pittsburgh, Pennsylvania 15251

with a copy sent to:

Regional Hearing Clerk
Office of Regional Counsel
Environmental Protection Agency
1200 Sixth Avenue, SO 125
Seattle, Washington 98101

ISSUED AT SEATTLE this 3rd day of April, 1987.

Anita J. Frankel
ANITA J. FRANKEL, Chief
Pesticides and Toxic Substances Branch

Form OBD-183
12-8-76 DOJ

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 761

[OPTS 62051; FRL 3179-1]

Polychlorinated Biphenyls Spill Cleanup Policy

AGENCY: Environmental Protection Agency (EPA).

ACTION: TSCA PCB spill cleanup policy rule.

SUMMARY: This rule presents the Toxic Substances Control Act (TSCA) policy for the cleanup of spilled polychlorinated biphenyls (PCBs). The TSCA policy establishes the measures which EPA considers to be adequate cleanup for the majority of situations where PCB contamination occurs during activities regulated under TSCA. While cleanup in accordance with this policy constitutes adequate cleanup of spills within the scope of this policy and creates a presumption against enforcement for penalties or further cleanup, EPA will not exercise enforcement abeyance for a disposal violation if the spill was the result of gross negligence or knowing violation.

Since this rule is a policy statement, it does not require notice and comment under the provisions of the Administrative Procedures Act. However, the Agency welcomes comment on and additional relevant information about the TSCA policy.

DATE: The TSCA policy shall be effective on May 4, 1987.

ADDRESSES: Information or comments for consideration by the Agency should be submitted in triplicate to: TSCA Public Information Office (TS-793), Office of Toxic Substances, Environmental Protection Agency, Rm. G004 NE Mall, 401 M St., SW., Washington, DC 20460.

Information and comments should include the docket number OPTS-62051. Information and comments received in connection with this document will be available for reviewing and copying from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays, in Rm. G004 NE Mall, Environmental Protection Agency, 401 M St., SW., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-543, 401 M St., SW., Washington, DC 20460, (202-554-1404).

SUPPLEMENTARY INFORMATION:

Contents of Preamble

I. Background
II. Scope of the Policy
A. Excluded Spills
B. Spill Situations Within the Scope of the Policy That May Warrant more Stringent Cleanup Levels
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I. Background

EPA regulations controlling the disposal of PCBs, promulgated in the **Federal Register** of February 17, 1978 (43 FR 7150) and May 31, 1979 (44 FR 31514), broadly define the term "disposal" to encompass accidental as well as intentional releases of PCBs to the environment. Under these regulations, EPA considers intentional, as well as unintentional, spills, leaks and other uncontrolled discharges of PCBs at concentrations of 50 parts per million (ppm) or greater (defined by the concentration of PCBs in the material which spills) to be improper disposal of PCBs. For purposes of this discussion, and as defined in this policy under Unit III, the term "Spill" means spills, leaks, or other uncontrolled discharges of PCBs where the release results in any quantity of PCBs running off or about to run off the surface of the equipment or other PCB source, as well as the contamination resulting from those releases. When PCBs are improperly disposed of as a result of a spill of material containing 50 ppm or greater PCBs, EPA has the authority under section 17 of TSCA to compel persons to take actions to rectify damage or clean up contamination resulting from the spill.

Policies for the cleanup of PCB spills are currently established separately by each EPA regional office, and owners of spilled PCBs are required to meet these standards or face potential penalties under TSCA section 16 for improper disposal of PCBs. Once cleanup occurs to the standard set by the EPA regional offices, the material which has been cleaned, e.g., soil, metal, or equipment, may be processed, distributed in commerce and used (unless the regional office has placed restrictions on these other activities).

EPA standards for the cleanup of spilled PCBs have been established at the EPA regional office level since 1978. Each region sets PCB cleanup standards in the form of general guidelines and then applies the general guidelines on a case-by-case basis for specific spill situations. The general guidelines and their application to spills have differed among regions. For certain spill situations, regions have required cleanup to 50 ppm PCBs. In other spill situations, regions have required cleanup to preexisting background levels or the limit of detection of PCBs.

For PCB spill cleanup, EPA has already in place certain requirements for timely cleanup. In the final PCB Electrical Equipment Rule, published in the **Federal Register** of August 25, 1982 (47 FR 37342), EPA requires the initiation of PCB Transformer spill cleanup within 48 hours of spill discovery and defines disposal specifically to include leaks, spills, and other unintentional discharges of PCBs. However, the PCB Electrical Equipment Rule did not establish numerical criteria for PCB spill cleanup.

Most recently, the regions have applied the "lowest practicable level" guideline set up in the January 27, 1984, Administrative Law Judge decision on *General Electric* v. *U.S.E.P.A.* The Agency has, however, experienced several areas of difficulty in applying the "lowest practicable level" approach. First, the guideline is subject to, and has resulted in, disparate interpretations. Second, the term "lowest practicable level" cannot be easily applied by the regulated community without guidance from EPA. This can delay cleanup, and delays in cleanup can result in prolonged exposures to humans and more widespread environmental contamination. Finally, the owner of the PCBs may disagree with the EPA regional office's interpretation of the "lowest practicable level" standard. This may occur when the EPA regional office interpretation would require more stringent and costly measures than the owner believes are warranted. This too can delay complete cleanup, as the application of this guideline has, in fact, led to protracted Agency actions in some cases.

Although EPA did not finalize the proposed PCB spill cleanup policy in 1982, EPA has continued to evaluate available information on the risks posed by spilled PCBs and the costs associated with cleanup to various levels. EPA recognized that setting a nationwide TSCA PCB cleanup policy was a desirable goal and in the winter of 1984 EPA produced a draft TSCA Compliance Monitoring Program Policy covering PCB spill cleanup. Although the 1984 draft policy was never officially released, the members of the press and the public acquired and reviewed the draft policy. The Environmental Defense Fund (EDF), Natural Resources Defense Council (NRDC), Edison Electric Institute (EEI), Chemical Manufacturers Association (CMA), and National Electrical Manufacturers Association (NEMA), among others, were principal reviewers of the 1984 draft policy.

On May 17, 1985 EDF, NRDC, EEI, CMA, and NEMA submitted to EPA an alternative PCB spill cleanup policy for consideration by the Agency. EPA viewed the Consensus Agreement as a framework for completing its nationwide TSCA policy and evaluated the Consensus Agreement as a source of information in developing the Agency's own policy. The Agency and the Consensus Group shared two general principles about the appropriate framework for a nationwide PCB spills cleanup policy: That the policy should establish requirements designed to be effective in the large majority of spill situations; and that the risks posed by residual contamination (PCBs remaining after cleanup) vary depending upon the location of the spill and the potential for human exposures.

The requirements and standards in this policy are based upon the Agency's evaluation of the potential routes of exposure and potential risks associated with the more common types of PCB spills, as well as the costs associated with cleanup following these more common types of spills. Typical PCB spills involve the limited release of PCBs during the course of EPA-authorized activities such as: The use of electrical equipment (e.g., transformers and capacitors), the servicing of electrical equipment, and the storage for disposal of PCBs.

In establishing this cleanup policy for typical PCB spills, EPA recognizes that the risks posed by spills of PCBs vary, depending upon spill location and the amount of PCBs spilled. EPA recognized this earlier, in both the August 25, 1982 PCB Electrical Equipment Rule and the July 17, 1985 PCB Transformer Fires Rule. In these rules, EPA placed more stringent requirements on higher concentration PCBs located in areas where their release would pose greatest potential for significant human exposure.

This TSCA policy requires cleanup of PCBs to different levels depending upon spill location, the potential for exposure to residual PCBs remaining after cleanup, the concentration of the PCBs initially spilled (i.e., PCBs spilled from PCB-contaminated equipment versus PCBs spilled from PCB equipment), and the nature and size of the population potentially at risk of exposure. Thus, this policy applies the most stringent requirements for PCB spill cleanup to areas where there is the greater potential for human exposures to spilled PCBs. The policy applies less stringent requirements for cleanup to PCB spills in areas where the type and degree of contact present lower potential exposures. Finally, even less stringent requirements apply to areas where there is little potential for any direct human exposures.

EPA firmly believes that by providing uniform, predictable requirements across the regions for the majority of spill situations, the nationwide policy will reduce the risks posed by spills of PCBs by encouraging rapid and effective cleanup and restoration of the site.

Unit VII of this document discusses available information and the rationale for the policy based upon that information. The policy reflects the Agency's best judgment in light of available information. However, the Agency welcomes comment on, and additional relevant information about, the TSCA policy as the Agency intends to continue to consider comments and evaluate information on the issue of PCB spills cleanup. Should the Agency's evaluation show that new information, or practical considerations associated with the implementation of the policy, warrant changes in, or modifications to, the policy, the policy will be revised accordingly by EPA headquarters. Thus, a public docket has been established to collect comments and information. The Agency believes that much of the data currently lacking can be developed only over a period of time and experience in implementing the policy. Therefore, EPA has not placed a time limit on the submission of comments.

Finally, the Agency intends to re-examine in 12 to 18 months the need to promulgate regulations requiring cleanup in accordance with Agency standards. The Agency's decision on the need to promulgate regulations will be based on two primary considerations. First, EPA will consider whether the issuance of the policy has in fact resulted in the application of consistent nationwide standards to PCB spill cleanup. Second, EPA will consider its experience in enforcing provisions of this policy with particular emphasis on the results of any litigation brought by the Agency for improper PCB disposal from leaks or spills.

II. Scope of the Policy

This policy establishes requirements for the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater. The policy applies to spills which occur after the effective date of this policy.

Existing spills (spills which occurred prior to the effective date of this policy) are excluded from the scope of this policy for two reasons: (1) For old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill in accordance with requirements imposed by EPA through its regional offices, nor is this policy intended to interfere with ongoing litigation of enforcement actions which bring into issue PCB spills cleanup; and (2) EPA recognizes that old spills which are discovered after the effective date of this policy will require site-by-site evaluation because of the likelihood that the site involves more pervasive PCB contamination than fresh spills and because old spills are generally more difficult to clean up than fresh spills (particularly on porous surfaces such as concrete). Therefore, spills which occurred before the effective date of this policy are to be decontaminated to requirements established at the discretion of EPA, usually through its regional offices.

EPA expects the large majority of PCB spills subject to the TSCA PCB regulations to conform to the typical spill situations considered in developing this policy. However, this policy does exclude from application of the final numerical cleanup standards certain spill situations: Spills directly into surface water, drinking water, sewers, grazing lands, and vegetable gardens. While these spills are subject to the notification requirements and to measures designed to minimize further environmental contamination (see Unit IV.A.), final cleanup standards for these types of spills are to be established at the discretion of the EPA regional offices.

For all other spills, EPA generally expects the final decontamination standards of this policy to apply. Occasionally, some small percentage of spills covered by this policy may

warrant different or more stringent cleanup requirements because of additional routes of exposure or significantly greater exposures than those assumed in developing the final cleanup standards of this policy.

There may also be exceptional spill situations that require less stringent cleanup, or a different approach to cleanup, due to factors associated with the particular spill. These factors may mitigate expected exposures and risks or make cleanup to these requirements impracticable.

A. Excluded Spills

Although the following six spill situations are excluded from the automatic application of final numerical decontamination standards of Units IV.B and C, the general requirements under Unit IV.A do apply to these spills. In addition, all of these excluded situations require practicable, immediate actions to contain the area of contamination. While these situations may not always require more stringent cleanup measures, the Agency is excluding these situations because they will always involve significant factors that may not be adequately addressed by cleanup standards based upon typical spill characteristics.

For the following six spill situations, the responsible party shall decontaminate the spill in accordance with site-specific requirements established by the EPA regional offices:

1. Spills that result in the direct contamination of surface waters (surface waters include, but are not limited to, "waters of the United States" as defined in 40 CFR Part 122, ponds, lagoons, wetlands, and storage reservoirs).
2. Spills that result in the direct contamination of sewers or sewage treatment systems.
3. Spills that result in the direct contamination of any private or public drinking water sources or distribution systems.
4. Spills which migrate to and contaminate surface waters, sewers, or drinking water supplies before cleanup has been completed in accordance with this policy.
5. Spills that contaminate animal grazing lands.
6. Spills that contaminate vegetable gardens.

B. Spill Situations Within the Scope of the Policy That May Warrant More Stringent Cleanup Levels

For spills within the scope of this policy, EPA generally retains the authority to require additional cleanup upon finding that, despite good faith efforts by the responsible party, the numerical decontamination levels in the policy have not been met (see discussion in Unit VI). In addition, EPA foresees the possibility of exceptional spill situations in which site-specific risk factors may warrant additional cleanup to more stringent numerical decontamination levels than are required by the policy. In these situations, the Regional Administrator has the authority to require additional cleanup upon finding, based upon the specific facts of the spill, that further cleanup must occur to prevent unreasonable risk. Before making a final decision on additional cleanup, the Regional Administrator will notify the Director of the Office of Toxic Substances of his finding and the basis for the finding.

For example, site-specific characteristics such as short depth to ground water, type of soil, or the presence of a shallow well may pose exceptionally high potential for ground water contamination by PCBs remaining after cleanup to the standards specified in this policy. Spills that pose such a high degree of potential for ground water contamination have not been excluded from the policy under Unit II.A.1 because the presence of such potential may not be readily apparent. EPA feels that automatically excluding such spills from the scope of the policy could result in the delay of cleanup—a particularly undesirable outcome if potential ground water contamination is in fact a significant concern.

C. EPA Flexibility To Allow Less Stringent or Alternative Requirements

EPA retains the flexibility to allow less stringent or alternative decontamination measures based upon site-specific considerations. EPA will exercise this flexibility if the responsible party demonstrates that cleanup to the numerical decontamination levels is clearly unwarranted because of risk-mitigating factors, that compliance with the procedural requirements or numerical standards in the policy is impracticable at a particular site, or that site-specific characteristics make the costs of cleanup prohibitive.

The Regional Administrator will notify the Director of OTS of any decision (and the basis for that decision) to all less stringent cleanup. The purpose of this notification is to enable the Director of OTS to ensure consistency in standards for spill cleanup under special circumstances across the regions.

D. The Relationship of This Policy to Other Statutes

This policy does not affect cleanup standards or requirements for the reporting of spills imposed, or to be imposed, under other Federal Statutory authorities, including but not limited to, the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA). Where more than one requirement applies, the stricter standard must be met.

The Agency recognizes that the existence of this policy will inevitably result in attempts to apply the standards to situations within the scope of other statutory authorities. However, other statutes require the Agency to consider different or alternative factors in determining appropriate corrective actions. In addition, the types and magnitudes or exposures associated with sites requiring corrective action under other statutes often involve important differences from those expected of the typical, electrical equipment-type spills considered in developing this policy. Thus, cleanups under other statutes, such as RCRA corrective actions or remedial and emergency response actions under SARA, may result in different outcomes.

III. Definitions

For purposes of this policy, certain words and phrases are used to denote specific materials, procedures, or circumstances. The following definitions are provided for purposes of clarity and are not to be taken as exhaustive lists of situations and materials covered by the policy.

1. *PCBs.* The term means polychlorinated biphenyls as defined in 40 CFR 761.3. As specified in 40 CFR 761.1(b), no requirements may be avoided through dilution of the PCB concentration.

2. *Low-concentration PCBs.* The term means PCBs that are tested and found to contain less than 500 ppm PCBs, or those PCB-containing materials which EPA requires to be assumed to be at concentrations below 500 ppm (i.e., untested mineral oil dielectric fluid).

3. *High-concentration PCBs.* The term means PCBs that contain 500 ppm or greater PCBs, or those materials which EPA requires to be assumed to contain 500 ppm or greater PCBs in the absence of testing.

4. *Spill.* The term as used in this policy means both intentional and

unintentional spills, leaks, and other uncontrolled discharges where the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases. This policy applies to spills of 50 ppm or greater PCBs. The concentration of PCBs spilled is determined by the PCB concentration in the material spilled as opposed to the concentration of PCBs in the material onto which the PCBs were spilled. Where a spill of untested mineral oil occurs, the oil is presumed to contain greater than 50 ppm, but less than 500 ppm PCBs, and is subject to the relevant requirements of this policy.

5. *Residential/commercial areas.* Residential/commercial areas are those areas where people live or reside, or where people work in other than manufacturing or farming industries. Residential areas include housing and the property on which housing is located, as well as playgrounds, roadways, sidewalks, parks and other similar areas within a residential community. Commercial areas are typically accessible to both members of the general public and employees and include public assembly properties, institutional properties, stores, office buildings, and transportation centers.

6. *Outdoor electrical substations.* Outdoor electrical substations are outdoor, fenced-off, and restricted access areas used in the transmission and/or distribution of electrical power. Outdoor electrical substations restrict public access by being fenced or walled off as defined at 40 CFR 761.30(1)(1)(ii). For purposes of this TSCA Policy, outdoor electrical substations are defined as being located at least 0.1 kilometer (km) from a residential/commercial area. Outdoor fenced-off and restricted access areas used in the transmission and/or distribution of electrical power which are located less than 0.1 km from a residential/commercial area are considered to be residential/commercial areas.

7. *Other restricted access (nonsubstation) locations.* Other restricted access (nonsubstation) locations are areas other than electrical substations that are at least 0.1 km from a residential/commercial area and limited by man-made barriers (e.g., fences and walls) or substantially limited by naturally occurring barriers such as mountains, cliffs, or rough terrain. These areas generally include industrial facilities and extremely remote rural locations. (Areas where access is restricted but are less than 0.1 km from a residential/commercial area are considered to be residential/commercial areas.)

8. *Nonrestricted access areas.* A nonrestricted access area is any area other than restricted access, outdoor electrical substations, and other restricted access locations, as defined in paragraphs 5 and 6 of this unit. In addition to residential/commercial areas, these areas include unrestricted access rural areas (areas of low-density development and population where access is uncontrolled by either man-made barriers or naturally occurring barriers, such as rough terrain, mountains, or cliffs).

9. *High-contact residential/commercial surface.* A high-contact residential/commercial surface is a surface in a residential/commercial area which is repeatedly touched, often for relatively long periods of time. Doors, wall areas below 6 feet in height, uncovered flooring, windowsills, fencing, banisters, stairs, automobiles, and children's play areas, such as outdoor patios and sidewalks, are examples of high-contact residential/commercial surfaces. Examples of low-contact residential/commercial surfaces include interior ceilings, interior wall areas above 6 feet in height, roofs, asphalt roadways, concrete roadways, wooden utility poles, unmanned machinery, concrete pads beneath electrical equipment, curbing, exterior structural building components (e.g., aluminum/vinyl siding, cinder block, asphalt tiles), and pipes.

10. *High-contact industrial surface.* A high-contact industrial surface is a surface in an industrial setting which is repeatedly touched, often for relatively long periods of time. Manned machinery and control panels are examples of high-contact industrial surfaces. High-contact industrial surfaces are generally of impervious solid material. Examples of low-contact industrial surfaces include ceilings, walls, floors, roofs, roadways and sidewalks in the industrial area, utility poles, unmanned machinery, concrete pads beneath electrical equipment, curbing, exterior structural building components, indoor vaults, and pipes.

11. *Soil.* The term means all vegetation, soils and other ground media, including but not limited to sand, grass, gravel, and oyster shells. It does not include concrete and asphalt.

12. *Impervious solid surfaces.* The term means solid surfaces which are nonporous and thus unlikely to absorb spilled PCBs within the short period of time required for cleanup of spills under this policy. Impervious solid surfaces include, but are not limited to, metals, glass, aluminum siding, and enameled or laminated surfaces.

13. *Nonimpervious solid surfaces.* The term means solid surfaces which are porous and are more likely to absorb spilled PCBs prior to completion of the cleanup requirements prescribed in this policy. Nonimpervious solid surfaces include, but are not limited to, wood, concrete, asphalt, and plasterboard.

14. *Double wash/rinse.* The double wash/rinse procedural performance standard applied in this policy means a minimum requirement to cleanse solid surfaces (both impervious and nonimpervious) two times with an appropriate solvent or other material in which PCBs are at least 5 percent soluble (by weight). A volume of PCB-free fluid sufficient to cover the contaminated surface completely must be used in each wash/rinse. The wash/rinse requirement does not mean the mere spreading of solvent or other fluid over the surface, nor does the requirement mean a once-over wipe with a soaked cloth. Precautions must be taken to contain any runoff resulting from the cleansing and to dispose properly of wastes generated during the cleansing.

15. *Standard wipe test.* For spills of high concentration PCBs on solid surfaces, this policy requires cleanup to numerical surface standards and sampling by a standard wipe test to verify that the numerical standards have been met. This definition constitutes the minimum requirements for an appropriate wipe testing protocol. A standard-size template (10 centimeters (cm) X 10 cm) will be used to delineate the area of cleanup; the wiping medium will be a gauze pad or glass wool of known size which has been saturated with hexane. It is important that the wipe be performed very quickly after the hexane is exposed to air. EPA strongly recommends that the gauze (or glass wool) be prepared with hexane in the laboratory and that the wiping medium be stored in sealed glass vials until it is used for the wipe test. Further, EPA requires the collection and testing of field blanks and replicates.

16. *Requirements and standards.* The term "requirements," as used in this policy means both the procedural responses and numerical decontamination levels set forth in this policy as constituting adequate cleanup of PCBs. The term "standards" means the numerical decontamination levels set forth in this policy.

17. *Spill area.* The term means the area of soil on which visible traces of the spill can be observed plus a buffer

zone of 1 foot beyond the visible traces. Any surface or object (e.g., concrete sidewalk or automobile) within the visible traces area, or on which visible traces of the spilled material are observed, is included in the spill area. This area represents the minimum area assumed to be contaminated by PCBs in the absence of precleanup sampling data and is thus the minimum area which must be cleaned.

18. *Spill boundaries.* The term means the actual area of contamination as determined by postcleanup verification sampling, or by precleanup sampling to determine actual spill boundaries. EPA can require additional cleanup when necessary to decontaminate all areas within the spill boundaries to the levels required in this policy (e.g., additional cleanup will be required if postcleanup sampling indicates that the area decontaminated by the responsible party, such as the spill area as defined in paragraph 13 of this unit, did not encompass the actual boundaries of PCB contamination).

IV Requirements for PCB Spill Cleanup

A. General Requirements

Unless expressly limited, the reporting, disposal, and precleanup sampling requirements in this unit apply to all spills of PCBs at concentrations of 50 ppm or greater which are subject to decontamination requirements under TSCA, including those spills listed in Unit II.A.1 through 6 which are excluded from the final cleanup standards in Units IV. B and C.

1. *Reporting requirements.* The following reporting is required in addition to applicable reporting requirements under the CWA or CERCLA. For example, under the National Contingency Plan all spills involving 10 lbs or more of PCB material must currently be reported to the National Response Center (1-800-424-8802). The requirements below are designed to be consistent with existing reporting requirements to the extent possible so as to minimize reporting burdens on the governments as well as the regulated community.

a. Where a spill directly contaminates surface water, sewers, or drinking water supplies (see discussion under Unit II.A), the responsible party shall notify the appropriate EPA regional office (the Office of Pesticides and Toxic Substances Branch) and obtain guidance for appropriate cleanup measures in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

b. Where a spill directly contaminates grazing lands or vegetable gardens (see discussion under Unit II.A), the responsible party shall notify the appropriate EPA regional office (the Office of Pesticides and Toxic Substances Branch) and proceed with the immediate requirements specified in Unit IV.B or C, depending of the source of the spill, in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

c. Where a spill exceeds 10 pounds of PCB material (generally 1 gallon of PCB dielectric fluid) and is not addressed in paragraph 1.a. or b. of this unit, the responsible party will notify the appropriate EPA regional office and proceed to decontaminate the spill area in accordance with this TSCA policy in the shortest possible time after discovery, but in no case later than 24 hours after discovery. For purposes of the notification requirement, the 10 pounds are measured by the weight of the PCB-containing material spilled rather than by the weight of only the PCBs spilled.

d. Spills of 10 pounds of less which are not addressed in paragraphs 1. a. or b. of this unit must cleaned up in accordance with this policy (in order to avoid EPA enforcement liability), but notification of EPA is not required.

2. *Disposal of cleanup debris and materials.* All contaminated soils, solvents, rags, and other materials resulting from the cleanup of PCBs under this policy shall be properly stored, labeled, and disposed of in accordance with the provisions of 40 CFR 761.60.

3. *Determination of spill boundaries in the absence of visible traces.* For spills where there are insufficient visible traces yet there is evidence of a leak or spill, the boundaries of the spill are to be determined by using a statistically based sampling scheme.

B. Requirements for Cleanup of Low-Concentration Spills Which Involve Less Than 1 LB PCBs By Weight (Less Than 270 Gallons of Untested Mineral Oil)

1. *Decontamination requirements.* Spills of low-concentrations PCBs (as defined in Unit III) which involve less than 1 pound of PCBs by weight (i.e., less than 270 gallons of untested mineral oil containing less than 500 ppm PCBs) shall be cleaned in the following manner:

a. Solid surfaces must be double washed/rinsed (as defined in Unit III) except that all indoor, residential surfaces other than vault areas must be cleaned to 10 micrograms per 100 square centimeters (100 $\mu g/cm^2$) by standard commercial wipe tests.

b. All soil within the spill area (i.e., visible traces of soil and a buffer of 1 lateral foot around the visible traces) must be excavated and the ground be restored to its original configuration by back-filling with clean soil (i.e., containing less than 1 ppm PCBs).

c. Requirements in paragraphs 1. a. and b. of this unit must be completed within 48 hours after the owner of the equipment, facility, or other source of PCBs (the responsible party) was notified or became aware of the spill.

2. *Effect of emergency or adverse weather.* Completion of cleanup may be delayed beyond 48 hours in case of circumstances including but not limited to, civil emergency, adverse weather conditions, lack of access to the site, and emergency operating conditions. The occurrence of a spill on a weekend or overtime costs are not acceptable reasons to delay response. Completion of cleanup may be delayed only for the duration of the adverse conditions. If the adverse weather conditions, or time lapse due to other emergency, have left insufficient visible traces, the responsible party must use a statistically based sampling scheme to determine the spill boundaries as required in Unit IV.A.3.

3. *Records and certification.* At the completion of cleanup, the responsible party or appropriate agent shall document the cleanup with records and certification of decontamination. The records and certification must be maintained for a period of 5 years. The records and certifiction shall consist of the following:

a. Indentification of the source of the spill, e.g., type of equipment.

b. Estimated or actual date and time of the spill occurrence.

c. The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

d. A brief description of the spill location.

e. Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces, and a brief description of the sampling methodology used to establish the spill boundaries.

f. A brief description of the solid surfaces cleaned and of the double wash/rinse method used.

g. Approximate depth of soil excavation and the amount of soil removed.

h. A certification statement signed by the responsible party or his/her designated agent (e.g., a facility manager or foreman) stating that the cleanup

requirements have been met and that the information contained in the record is true to the best of his/her knowledge.

While not required for compliance with this policy, the following information would be useful if maintained in the records: (1) Additional pre- or postcleanup sampling; and (2) the estimated cost of the cleanup by man-hours, dollars, or both.

C. Requirements for Cleanup of High-Concentration Spills and Low-Concentration Spills Involving 1 LB or More PCBs By Weight (270 Gallons or More of Untested Mineral Oil)

Cleanup of low-concentration spills involving 1 lb or more PCBs by weight, and of all other spills of regulated materials shall be considered complete if all of the immediate requirements, cleanup standards, sampling, and recordkeeping requirements below are met.

1. *Immediate requirements.* The following four actions must be taken as quickly as possible and within no more than 24 hours (or within 48 hours for PCB Transformers) after the owner of the equipment or container from which the spill occurred, or other responsible representative of the owner such as a facility manager, was notified or became aware of the spill, except that actions described in paragraphs 1. b., c., and d. of this unit may be delayed beyond 24 hours if circumstances (e.g., civil emergency, hurricane, tornado, or other similar adverse weather conditions, lack of access due to physical impossibility, or emergency operating conditions) so require for the duration of the adverse conditions. The occurrence of a spill on a weekend or overtime costs are not acceptable reasons to delay response. Owners of spilled PCBs who have delayed cleanup because of these types of circumstances must keep records documenting the fact that circumstances precluded rapid response. The responsible party shall:

a. Notify the EPA regional office and the NRC as required by Unit IV.A.1 or by other applicable statutes.

b. Effectively cordon off or otherwise delineate and restrict an area encompassing any visible traces plus a 3-foot buffer, and place clearly visible signs advising persons to avoid the area, to minimize the spread of contamination as well as the potential for human exposure.

c. Record and document the area of visible contamination, noting the extent of the visible trace areas and the center of the visible trace area. If there are no visible traces, the responsible party shall record this fact and contact the regional office of the EPA for guidance in completing statistical sampling of the spill area to establish spill boundaries.

d. Initiate cleanup of all visible traces of the fluid on hard surfaces and initiate removal of all visible traces of the spill on soil and other media, such as gravel, sand, oyster shells, etc.

If there has been a delay in reaching the site and there are insufficient visible traces of PCBs remaining at the spill site, the owner of the PCBs must estimate (based on the amount of material missing from the equipment or container) the area of the spill and immediately cordon off the area of suspect contamination. The owner must then utilize a statistically based sampling scheme to identify the boundaries of spill area as soon as practicable.

Although this policy requires certain immediate actions, as described above, EPA is not placing a time limit on completion of the cleanup effort since the time required for completion will vary from case to case. However, the Agency expects that decontamination will be achieved promptly in all cases and will consider the promptness of completion in determining whether a responsible party made good faith efforts to clean up in accordance with this policy.

2. *Requirements for decontaminating spills in outdoor electrical substations.* Spills which occur in outdoor electrical substations (as defined in Unit III) shall be decontaminated in accordance with paragraphs a. and b. of this unit. Conformance to the cleanup standards in paragraphs a. and b. of this unit shall be verified by postcleanup sampling as specified in Unit V. At such times as outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the non-restricted access requirements in Unit IV.C.4.

a. Contaminated solid surfaces (both impervious and non-impervious) shall be cleaned to a PCB concentration of 100 $\mu g/100\ cm^2$ (as measured by standard wipe tests).

b. At the option of the responsible party, soil contaminated by the spill will be cleaned: (1) To 25 ppm PCBs by weight, or (2) to 50 ppm PCBs by weight provided that a label or notice is visibly placed in the area. Upon demonstration by the responsible party that cleanup to 25 ppm or 50 ppm will jeopardize the integrity of the electrical equipment at the substation, the EPA regional office may establish an alternative cleanup method or level and place the responsible party on a reasonably timely schedule for completion of cleanup.

3. *Requirements for decontaminating spills in other restricted access areas.* Spills which occur in restricted access locations other than outdoor electrical substations (as defined in Unit III) shall be decontaminated in accordance with paragraphs 3.a through e. of this unit. Conformance to the cleanup standards in paragraphs a. through e. of this unit shall be verified by postcleanup sampling as specified in Unit V. At such times as restricted access areas other than outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the nonrestricted access area requirements under Unit IV.C.4.

a. High-contact solid surfaces (see definition of high-contact industrial surfaces in Unit III) shall be cleaned to 10 $\mu g/100\ cm^2$ (as measured by standard wipe tests).

b. Low-contact, indoor, impervious solid surfaces will be decontaminated to 10 $\mu g/100\ cm^2$.

c. At the option of the responsible party, low-contact, indoor, nonimpervious surfaces will be cleaned either: (1) To 10 $\mu g/100\ cm^2$; or (2) to 100 $\mu g/100\ cm^2$ and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if he/she determined that if encapsulation failed at a particular site this failure would create an imminent hazard.

d. Low-contact, outdoor surfaces (both impervious and non-impervious) shall be cleaned to 100 $\mu g/100\ cm^2$.

e. Soil contaminated by the spill will be cleaned to 25 ppm PCBs by weight.

4. *Requirements for decontaminating spills in non-restricted access areas.* Spills which occur in nonrestricted access locations (as defined in Unit III) shall be decontaminated in accordance with paragraphs 4.a. through e. of this unit. Conformance to the cleanup standards in paragraphs 4.a. through e. of this unit shall be verified by postcleanup sampling as specified in Unit V. At such times as outdoor electrical substations and other restricted access areas are converted to another use, the spill site shall be cleaned up to the non-restricted access area requirements.

a. Furnishings, toys, and other easily replaceable household items shall be disposed of in accordance with the provisions of 40 CFR 761.60 and replaced by the responsible party.

b. Indoor solid surfaces and high-contact outdoor solid surfaces (see definition of high contact residential

commercial surfaces in Unit III) shall be cleaned to 10 μg/100 cm² (as measured by standard wipe tests).

c. Indoor vault areas, and low-contact, outdoor, impervious solid surfaces shall be decontaminated to 10 μg/100 cm².

d. At the option of the responsible party, low-contact, outdoor, nonimpervious solid surfaces shall be either: (1) cleaned to 10 μg/100 cm²; or (2) cleaned to 100 μg/100 cm² and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if he/she determined that if the encapsulation failed the failure would create an imminent hazard at the site.

e. Soil contaminated by the spill will be decontaminated to 10 ppm PCBs by weight, provided that soil is excavated to a minimum depth of 10 inches. The excavated soil will be replaced with clean soil (i.e., containing less than 1 ppm PCBs), and the spill site will be restored (e.g., replacement of turf).

5. *Records.* The responsible party or appropriate agent shall document the cleanup with records of decontamination. The records must be maintained for a period of 5 years. The records and certification shall consist of the following:

a. Identification of the source of the spill (e.g., type of equipment.)

b. Estimated or actual date and time of the spill occurrence.

c. The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

d. A brief description of the spill location and the nature of the materials contaminated (this information should include whether the spill occurred in an outdoor electrical substation, other restricted access location, or in a nonrestricted access area).

e. Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces, and a brief description of sampling methodology used to establish the spill boundaries.

f. A brief description of the solid surfaces cleaned.

g. Approximate depth of soil excavation and the amount of soil removed.

h. Postcleanup verification sampling data and, if not otherwise apparent from the documentation, a brief description of the sampling methodology and analytical technique used.

While not required for compliance with this policy, information on the estimated cost of cleanup (by man-hours, dollars, or both) would be useful if maintained in the records.

EPA will soon issue for publication in the **Federal Register** a proposed rule to require these recordkeeping measures to facilitate EPA's monitoring of PCB spill cleanups.

V. Sampling Requirements

Postcleanup sampling is required to verify the level of cleanup under Unit IV.C. 2 through 4. The responsible party, or designated agent, may use any statistically valid, reproducible, sampling scheme (either random samples or grid samples), provided that the requirements of paragraphs 1. and 2. of this unit are satisfied.

1. The sampling area is the greater of (1) an area equal to the area cleaned plus an additional 1-foot boundary, or (2) an area 20 percent larger than the original area of contamination.

2. The sampling scheme must ensure 95 percent confidence against false positives.

3. The number of samples must be sufficient to ensure that areas of contamination of a radius of 2 feet or more within the sampling area will be detected, except that the minimum number of samples is 3 and the maximum number of samples is 40.

4. The sampling scheme must include calculation for expected variability due to analytical error.

EPA recommends the use of the sampling scheme developed by the Midwest Research Institute (MRI) for use in EPA enforcement inspections: "Verification of PCB Spill Cleanup by Sampling and Analysis." Guidance for the use of this sampling scheme is available in the MRI report "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup." Both the MRI sampling scheme and the guidance document are available from the TSCA Assistance Office at the address and telephone number given under "FOR FURTHER INFORMATION CONTACT." The major advantage of this sampling scheme is that it is designed to characterize the degree of contamination within the entire sampling area with a high degree of confidence while using fewer samples than any other grid or random sampling scheme. This sampling scheme also allows some sites to be characterized on the basis of composite samples.

At its discretion, EPA may take samples from any spill site. If EPA's sampling indicates that the remaining concentration level exceeds the required level, EPA will require further cleanup. For this purpose, the numerical level of cleanup required for spills cleaned in accordance with Unit IV.B are deemed to be the equivalent of numerical cleanup requirements required for cleanups under Unit IV.C. 2 through 4. EPA may sample using its best engineering judgment, a statistically valid random or grid sampling technique, or both. When using engineering judgment or random "grab" samples, EPA will take into account that there are limits on the power of a grab sample to dispute statistically based sampling of the type required of the responsible party. EPA headquarters will provide guidance to the EPA regions on the degree of certainty associated with various grab sample results.

VI. EPA Enforcement and the Effect of Compliance With This Policy

Although a spill of material containing 50 ppm or greater PCBs is considered improper PCB disposal, this policy establishes requirements that EPA considers to be adequate cleanup of the spilled PCBs. Cleanup in accordance with this policy means compliance with the procedural as well as the numerical requirements of this policy. Compliance with this policy creates a presumption against both enforcement action for penalties and the need for further cleanup under TSCA. The Agency reserves the right, however, to initiate appropriate action to compel cleanup where, upon review of the records of cleanup, EPA finds that the decontamination levels in the policy have not been achieved. The Agency also reserves the right to seek penalties where the Agency believes that the responsible party has not made a good faith effort to comply with all provisions of this policy, such as prompt notification of EPA of a spill, recordkeeping, etc.

EPA's exercise of enforcement discretion does not preclude enforcement action under other provisions of TSCA or any other Federal statute. This includes, even in cases where the numerical decontamination levels set forth in this policy have been met, civil or criminal action for penalties where EPA believes the spill to have been the result of gross negligence or knowing violation.

The TSCA policy has been reviewed by the Office of Management and Budget.

This concludes EPA's TSCA policy. Unit VII, which follows, contains the rationale for the policy, the data on which the policy was based, and the

areas in which EPA lacks data. EPA solicits information to fill those gaps.

VII. Development of the TSCA Spill Cleanup Policy

As will become apparent in the discussion below, there are gaps in the information which was available to the Agency in developing the TSCA policy. The EPA designed the TSCA policy to enable the Agency and the regulated industry to gather data for filling the gaps. In all cases, through the cleanup levels established in the TSCA policy and by retaining authority to require additional cleanup where warranted, EPA has placed sufficient controls on the party responsible for cleanup to ensure that future PCB spills will be cleaned to levels that do not pose an unreasonable risk of injury to human health or the environment. The TSCA policy reflects the Agency's best judgment in light of available information. However, the Agency welcomes comment on, and additional relevant information about, the TSCA policy.

A. Risks Posed by Leaks and Spills of PCBs

1. *Frequency, amount, and nature of leaks and spills.* The TSCA policy establishes the measures which EPA considers to constitute adequate cleanup of PCB contamination resulting from activities regulated under TSCA. EPA expects that the TSCA policy will be most frequently applied to leaks and spills of PCBs which occur during the use of authorized equipment such as electrical transformers and capacitors. Thus, EPA's evaluation of the risks posed by spills of PCBs and the costs associated with cleanup following these spills focuses primarily on leaks and spills of PCBs from electrical transformers and capacitors.

EPA estimates that there are 121,000 (askarel) PCB Transformers currently in use, over 20 million mineral oil transformers contaminated with PCBs currently in use, and over 2.8 million large PCB Capacitors currently in use. Available data indicate that on an annual basis, about 3.3 percent of (askarel) PCB Transformers in use will leak or spill PCBs. The average PCB leak or spill from a PCB Transformer is 5.3 gallons, or about 66 pounds of PCBs. On an annual basis, EPA expects that about 264,000 pounds of PCBs are leaked or spilled into the environment from PCB Transformers.

EPA expects that about 17,000 of these PCB Transformers are located in electrical substations, where 37,000 pounds of spilled PCBs would be expected to be released each year. EPA expects that about 27,000 PCB Transformers are located in industrial facilities, where an estimated 59,000 pounds of PCBs are spilled each year. Finally, 77,000 PCB Transformers are located in other areas (most likely, in or near commercial buildings), where an estimated 168,000 pounds of PCBs are released each year.

EPA expects that of the over 20 million PCB-containing mineral oil transformers in use, 76 percent are located in residential neighborhoods and public areas (i.e., schools, shopping centers, etc.). The majority of these transformers contain less than 500 parts per million PCBs. Available data indicate that the average leak or spill of PCBs from mineral oil transformers contains less than one-tenth of a tablespoon of PCBs, or 0.08 ounce of PCBs. On an annual basis, EPA expects that 627 pounds of PCBs are spilled from mineral oil transformers in residential and public areas. The remaining mineral oil transformers are located in outdoor electrical substations, industrial facilities, and rural areas. EPA estimates that less than 200 pounds of PCBs are leaked from these transformers each year.

Based on available data, EPA estimates that there are over 2.8 million PCB Capacitors in use. Of these 2.8 million capacitors, EPA estimates that 1.6 million are in use in substations or generating facilities and 1.2 million are inside buildings and on utility poles throughout the distribution system. Of the 1.6 million PCB Capacitors in use in electrical substations, EPA expects that over 12,000 leak each year, releasing about 200,000 pounds of PCBs. Of the 1.2 million PCB Capacitors in use inside buildings and on utility poles, EPA expects that over 9,000 leak each year, releasing about 154,000 pounds of PCBs.

Electrical transformers generally contain 100 times the amount of PCBs contained within PCB Capacitors. PCB Transformers typically contain between 300 and 500 gallons of PCB dielectric fluid, while PCB Capacitors generally contain about 3 gallons of PCB dielectric fluid. Unlike PCB Transformer spills, the majority of PCB Capacitor spills involve the violent rupture of the capacitor and the spraying of PCBs. Thus, PCBs spilled from energized capacitors are generally more widely distributed in the spill area than PCBs spilled from transformers. Available data indicate that for over 80 percent of capacitor spills, PCBs are distributed as far as 11 feet from the center of the spill.

PCBs spilled from transformers are more likely to leak from gaskets and valves, and the area contaminated from these types of spills is more directly related to the amount of spilled material than is the case for explosive ruptures, such as occur from energized capacitors. EPA conducted a crude experiment in order to predict the maximum lateral spread of PCBs from other than explosive ruptures of electrical transformers: the maximum spread of water on low-porosity surfaces was tested and assumed to be equivalent to the maximum lateral spread of PCBs and PCB-contaminated oils on soil. EPA found that for every gallon of material spilled, one could expect a maximum area of contamination of about 3 square meters (m^2). Although with time one would see a slight increase in lateral spread (assuming no runoff), for the most part, a 1 gallon spill of PCB material from a transformer cleaned up within 2 weeks of the spill would not be expected to contaminate greater than a $3m^2$ area. This assumes of course that the material has not been tracked into other areas in the interim and that weather conditions have not caused further lateral spread. Spills of PCBs from deenergized capacitors, other authorized equipment, and containers of PCBs would be expected to behave in a similar manner to leaks and spills of PCBs from non-explosive transformer spills.

To summarize, the total amount of PCBs released from electrical transformers and capacitors each year from leaks and spills of PCBs is estimated at about 620,000 pounds (out of an estimated 163 million pounds of PCBs in use in this equipment). Of these PCBs, 38 percent are spilled in electrical substations and 62 percent of these PCBs are spilled in residential/commercial areas, rural areas, and industrial facilities. The majority of spilled PCBs are spilled from capacitors, and capacitor spills typically result from violent ruptures and lead to the distribution of PCBs at distances as far away as 11 feet from the center of the spill (total average spill area is about 380 square feet).

PCBs spilled from deenergized capacitors, transformers (excluding transformers involved in fires), other authorized equipment, and PCB Containers generally involve nonviolent ruptures and the maximum spread of the spilled material can be estimated by assuming $3m^2$ of contamination per gallon of spilled material.

2. *Toxicity and environmental persistence.* EPA has concluded that PCBs are both toxic and persistent. In earlier rulemakings and Agency PCB health effects review documents, EPA has determined that persons exposed to PCBs can develop chloracne (a

disfiguring skin illness), and that based on laboratory animal data, there is a potential for reproductive effects and developmental toxicity as well as oncogenicity in humans exposed to PCBs. EPA has also concluded that PCBs are resistant to degradation and that they bioaccumulate and bioconcentrate in the fatty tissue of organisms. PCBs are very stable compounds which can persist for years when released into the environment. A more detailed discussion of EPA's findings on the health effects of PCBs can be found in the July 10, 1986 **Federal Register** (51 FR 28172).

Recently, the Office of Health and Environmental Assessment (OHEA) at EPA developed draft health advisories for PCBs in soil for use by EPA's Office of Emergency and Remedial Response (OERR). These health advisory levels are to be used as guidelines for initiating removal action for sites contaminated with PCBs. The draft health advisories developed by OHEA address both the oncogenic risks and other than oncogenic risks posed to humans by exposures to PCBs in soils at various levels.

The cancer potency slope factor for PCBs has been estimated by EPA's Cancer Assessment Group (CAG) and the Office of Toxic Substances (OTS) to be 4.34 $(mg/kg/day)^{-1}$ and 3.57 $(mg/kg/day)^{-1}$, respectively. An average of these values (4.0 $(mg/kg/day)^{-1}$) was used in the OHEA draft health advisories as the PCB cancer potency factor. The OHEA calculation of the human dose associated with a 1×10^{-6} level of oncogenic risk is 0.0175 microgram/day. The Agency's assessment of risks associated with dermal and inhalation exposure to PCBs on solid surfaces was also based upon a cancer potency slope factor of 4.0 $(mg/kg/day)^{-1}$ for PCBs.

3. *Potential for exposure to spilled PCBs.* In evaluating potential routes of exposure to PCBs which are leaked and spilled, EPA looked at the potentional for exposure in nonrestricted access areas, restricted access areas, and restricted access, outdoor electrical substations. Further, since the TSCA policy is designed to apply to the large majority of spill situations, EPA focused on the routes of potential exposure associated with typical spill situations. Unique spill scenarios which present greater potential exposures or additional routes of exposure are excluded from application of the cleanup levels in the TSCA policy.

In developing the cleanup standards for PCB spills into soil and other ground media, EPA relied primarily on the exposure and risk analysis in the OHEA health advisories for PCBs in soil. Exposure estimates used to evaluate the risk associated with various cleanup standards for solid surfaces such as metals, wood, asphalt, and concrete were developed by the EPA's Office of Toxic Substances. Neither the OHEA assessment for PCBs in soil nor the OTS estimates of exposure to PCBs in soil assume PCB contamination of other potential exposure pathways such as surface water, drinking water supplies, sewer systems, vegetable gardens, or grazing lands.

EPA believes that the large majority of spills which occur after the effective date of the TSCA policy will not involve these additional routes of exposure. Those exceptional spill situations which would result in these additional routes of exposure are excluded from the TSCA policy and must be cleaned up to levels determined by the appropriate EPA regional office. EPA excluded these spill situations from the scope of the policy because such spills may have to be cleaned up to lower levels in recognition of the potential for additional human exposures. Whether or not more stringent cleanup standards are necessary for these exceptional spill situations, the additional routes of potential exposure require some degree of evaluation on a case-by-case basis before making a final decision on appropriate cleanup levels in such circumstances.

Further, spills of PCBs into sand, soil, gravel, and other similar materials in special areas within the residential/commercial setting (i.e., areas where people may come into repeated daily contact, such as children's sandboxes, spills which pose particular concerns about future ground water contamination, spills which involve the combustion of PCBs (and the possible formation of toxic combustion byproducts such as polychlorinated dibenzofurans (PCDFs) and polychlorinated dibenzodioxins (PCDDs)), and spills onto farmland may be required to be cleaned up to lower levels, in recognition of the increased potential for exposure. The EPA regional offices should be contacted for guidance on appropriate cleanup for these types of spills.

The OTS dermal exposure assessments for PCBs on solid surfaces such as metal, concrete, and asphalt assume that PCBs are transferred to the skin at a relatively high rate (50 percent or more). This assumption is based on the results of an EPA-sponsored study on the transfer of PCBs from glass and unpainted metal to skin (human skin and pig skin) upon contact. EPA currently lacks data on the rate of transfer of PCBs from rougher, porous surfaces such as concrete, asphalt or wood to human skin. Although EPA expects that the transfer rate may be significantly lower for rough, porous surfaces, in the absence of more extensive data, EPA has assumed that the transfer rate would be the same as for glass and unpainted steel.

a. *Exposures in nonrestricted access areas.* Areas which do not limit public access by man-made or naturally occurring barriers (i.e., residential, commercial, and unrestricted access rural areas) generally present the greatest potential for a high degree of human exposure to spilled PCBs. Spills of PCBs in residential/commercial areas may involve: (1) The contamination of soil, grass, sand, gravel, and other ground materials; (2) the contamination of outdoor solid surfaces such as metal, concrete, asphalt, and wood; (3) the contamination of indoor solid surfaces such as ceilings, walls, and floors; (4) the contamination of indoor vault areas; and (5) the contamination of household items such as clothing, toys, and pat.) furniture.

Spills of PCBs in unrestricted access rural areas may involve the contamination of materials like those listed under paragraphs (1) and (2) of this unit. Since human exposures to PCBs spilled in unrestricted access rural areas may at times approach levels of exposure in residential/commercial areas, EPA has included unrestricted access rural areas under the standards for residential/commercial spills. Typical exposures would, however, be expected to be lower in rural areas compared to typical exposures in the residential/commercial setting.

i. *Exposures from outdoor spills into soil, sand, gravel, and other similar materials.* The principal routes of exposure to PCBs spilled into soil in residential areas would be through inhalation and ingestion. Dermal exposures may also occur, although EPA expects that the PCBs will adsorb to the soil particles, reducing the rate of dermal absorption. OHEA has calculated the expected levels of human exposure to PCBs through inhalation and ingestion when PCBs are present at different levels in soil.

The OHEA assessment concludes that a PCB level of 1 to 8 ppm PCBs in soil in a residential/commercial area would be associated with a 1×10^{-6} level of oncogenic risk. OHEA assumed that the contaminated area is 0.5 acre (18,225 square feet), that 0.6 gram of soil is ingested per day at ages 0 to 6, and that the population is exposed for 50 percent of their lifetime. The placement of a 10-

inch cap of clean soil on top of soil containing 1 to 6 ppm PCBs reduces the expected level of oncogenic risk by an order of magnitude (to 1×10^{-6}).

ii. *Exposures to spills onto solid surfaces*—a. *Outdoor surfaces.* PCBs spilled onto outdoor solid surfaces such as metal, concrete, asphalt, or utility poles in residential areas would result in some inhalation exposures and infrequent dermal exposure. For solid surfaces to which people would be expected to have frequent contact, higher levels of dermal exposure would be expected.

Examples of low-contact outdoor solid surfaces include asphalt and concrete roadways, roof areas, unmanned machinery, concrete pads beneath electrical equipment, curbing, and external structural building components. The estimated level of oncogenic risk associated with exposures to low-contact outdoor surfaces in residential/commercial settings (using reasonable worst-case assumptions about exposures to surface levels of 10 $\mu g/100\ cm^2$) is between 1×10^{-5} and 1×10^{-6}.

Sidewalks and patios where children play, fences, and automobiles are examples of residential/commercial surfaces to which people may come into frequent daily contact. The estimated level of oncogenic risk associated with exposures to such higher contact outdoor surfaces in residential/commercial settings (using reasonable worst-case assumptions about exposures to surfaces levels of 0.5 to 1.0 $\mu g/100\ cm^2$) is between 1×10^{-5} and 1×10^{-6}.

b. *Indoor surfaces.* Spill onto indoor hard surfaces may occur when outdoor electrical equipment ruptures catastrophically and sprays PCBs into a room through an open window or door. Spills onto indoor hard surfaces may also occur when electrical equipment inside a building leaks or spills PCBs and the leaked or spilled PCBs are distributed outside the electrical equipment room into other areas of the building through ventilation equipment and ductwork or by tracking. Inhalation exposures and dermal exposures would be expected following a spill of PCBs onto an indoor hard surface. Based on EPA's assessment of the risks posed by spills of PCBs onto indoor hard surfaces, dermal exposures would be expected to be the exposure route of highest concern (inhalation exposures to residual indoor PCB levels of 10 $\mu g/100\ cm^2$ are associated with a 1×10^{-6} level of oncogenic risk, while dermal exposures to this same level of PCBs on a low-contact indoor surface are associated with a 1×10^{-5} level of oncogenic risk).

From a perspective of dermal exposure, there are two types of potentially contaminated surfaces: low-contact surfaces and high-contact surfaces. Low-contact surfaces are those which are infrequently touched. In a residential/commercial setting, ceilings and wall areas above 6 feet in height would be considered low-contact surfaces. High-contact surfaces are those which are repeatedly contacted, often for relatively long periods of time. High-contact surfaces in a residential/commercial area include uncovered flooring, wall areas below 6 feet in height, stairways, bannisters, and railings. The estimated level of oncogenic risk associated with dermal exposures to 1 $\mu g/100\ cm^2$ of PCBs on low-contact indoor hard surfaces is between 1×10^{-5} and 1×10^{-6}. The National Institute of Occupational Safety and Health (NIOSH) has reported that 0.5 $\mu g/100\ cm^2$ is background level of PCBs on indoor hard surfaces, and this level of residual contamination on a high-contact indoor hard surface would be associated with a level of oncogenic risk between 1×10^{-5} and 1×10^{-6}.

c. *Easily replaceable/high-contact items.* PCBs released from electrical transformers or capacitors in indoor residential/commercial areas may result in the contamination of nonstructural, easily replaceable materials to which people have repeated daily contact (i.e., clothing, household furnishings, paper, notepads, office supplies, patio furniture, toys, swingsets, etc.). Since PCBs are expected to be readily absorbed through the skin, dermal contact with PCBs spilled onto these types of high-contact materials could result in significant exposures. Materials such as paper, clothing, and toys would themselves absorb the PCBs and be difficult, if not impossible, to clean completely. These materials would, however, be expected to release the PCBs slowly, resulting in continued dermal exposures to low levels of PCBs over a prolonged period of time. Depending upon the extent of contamination, inhalation exposures from these types of contaminated high-contact materials could also be significant.

iii. *Spills in indoor vault areas*—a. *Transformer vault areas and electrical equipment rooms.* One of the more common areas of PCB contamination from leaks and spills of PCBs from inuse electrical equipment are indoor transformer vault areas and electrical equipment rooms. Exposures to PCBs may occur through both inhalation and dermal routes, although since many transformer vaults and electrical equipment rooms are well ventilated (reducing airborne PCB concentrations in the vaults), the route of exposure of highest concern in an electrical equipment room would be the dermal route. From the perspective of inhalation exposures alone, residual PCB levels of 10 $\mu g/100\ cm^2$ would be associated with oncogenic risks below 1×10^{-6}. Dermal exposures to PCBs on floors, ceilings, and walls in vault areas would be expected to be less than dermal exposures to PCBs on low-contact surfaces in residential/commercial areas because of less frequent contact with the contaminated surfaces. Residual PCB levels (on ceilings, floors, and walls) of 10 $\mu g/100\ cm^2$ in vault areas would be associated with a 1×10^{-5} to 1×10^{-6} level of oncogenic risk.

b. *Exposures in industrial and other restricted access (nonsubstation) locations.* PCB spills in the industrial setting may result in: (1) Outdoor contamination of soil, sand, gravel, and other similar materials; (2) contamination of both indoor and outdoor hard surfaces; and (3) indoor contamination of vault areas and electrical equipment rooms.

i. *Outdoor contamination of soil, sand, etc.* The principal route of human exposure to PCBs from a spill in soil is through the inhalation route. Soil ingestion and dermal contact with soil would not be expected to be significant routes of exposure at a restricted access site. PCB levels in soil of 25 ppm would present less than a 1×10^{-7} level of oncogenic risk to people on-site who work more than 0.1 km from the actual spill area (assuming that the spill area is less than 0.5 acre).

ii. *Contamination of hard surfaces.* Hard surfaces which may become contaminated in an industrial area include items such as lathes and other types of industrial equipment and machinery, in addition to surfaces such as asphalt, concrete, and wood. In industrial areas, outdoor hard surfaces such as concrete, asphalt, and structural building components would not be expected to result in as frequent exposures as may occur for these surfaces in a residential/commercial area. Thus, residual PCB levels on these outdoor industrial surfaces of 100 $\mu g/100\ cm^2$ (following cleanup of an "askarel" spill) would not be expected to result in significant exposures.

Indoor contamination of structural building components in industrial areas (e.g., ceilings, walls, and floors) and contamination of vaults or electrical equipment rooms would result in some inhalation exposures, but the principal route of exposure would be expected to be through dermal contact. Residual

PCB levels of 10 μg/100 cm² on indoor low-contact surfaces in industrial areas would not be expected to result in significant exposures.

The highest exposure to surface contamination in an industrial setting would be to industrial workers using machinery contaminated with PCBs. Such workers may experience repeated dermal exposures to PCBs, and others may also experience such exposures if this equipment is sold, transported and/or reused. Dermal contact with PCBs may also lead to oral exposures during meals and while smoking. Depending upon the level of contamination, inhalation may also be significant, since workers using machinery are expected to be in close proximity to the equipment during its use. Higher levels of inhalation exposure can be anticipated if the contaminated equipment is operated under conditions of elevated temperature, since this would increase the volatility of any PCBs present on the equipment. Residual PCB levels of 0.5 μg/100 cm² (reported by NIOSH as the background level for PCBs) on these types of high-contact surfaces would not result in significant exposures.

c. *Exposures in outdoor electrical substations.* PCBs released from transformers or capacitors in fenced-off electrical substations pose little risk of directly exposing members of the general population to PCBs. Electrical substations are typically located at distances greater than 0.1 kilometer from population areas and are generally fenced off to restrict access to authorized maintanance personnel only. Dermal and inhalation exposures by maintenance workers would, however, occur during servicing activities, an oral exposures may result from the transfer of PCBs from the hands to the mouth during meals or while smoking. Populations located at distances of greater than 0.1 kilometer from the site of the spill may incur inhalation exposures. However, the OHEA assessment document indicates that PCB levels in soil between 220 and 1,300 ppm present a 1×10^{-7} level of oncogenic risk to populations located at distances of 1 km or more from spill areas. Thus, PCB levels of 50 ppm in soil in an outdoor electrical substation would not be expected to result in significant exposures to the general population.

PCB spills onto hard surfaces in outdoor electrical substations may result in inhalation exposures and dermal exposures primarily to maintenance workers. The general population would not be expected to incur significant inhalation exposures, and dermal contact would be unlikely given the fact that these areas are fenced off and have restricted access. Residual PCB levels of 100 μg/100 cm² would not be expected to result in significant exposures to either the occasional maintenance worker or the general population.

4. *Conclusions about PCB leaks and spills.* Leaks and spills of PCBs from PCB Equipment in residential/commercial areas present the greatest potential for human exposure, when compared to other types and locations of PCB spills. The potential for exposure is high. Oral, dermal, and inhalation exposures to PCBs from spills in residential areas are likely, expecially among children. Human exposures to PCBs spilled in unrestricted access rural areas also may at times be comparable to exposures in the residential setting. Available data on leaks and spills of PCBs indicate that the majority of PCBs spilled from PCB Equipment are spilled from PCB Capacitors and that there are many of these capacitors in use in residential areas.

Potential exposure to spilled PCBs or residual PCBs after cleanup of a spill in a restricted-access area is generally limited to industrial workers. Some types of contamination in restricted-access industrial facilities pose worker exposures as great as residential/commercial exposures. For example, contamination of control panels or manually operated machinery can result in frequent, if not continuous, dermal exposure to industrial workers. Other than any high-contact, manned equipment which may be located outdoors, spills outdoors in an industrial setting will result in a lesser degree of inhalation exposure to workers and the general population than similar spills in residential/commercial settings.

Spills in outdoor electrical substations pose the lowest potential exposures. Outdoor electrical substation are generally fenced off to restrict access to authorized personnel only. There is some possibility of dermal and inhalation exposures to maintenance workers. However, exposure to maintenance workers is less likely to be of a continuous or frequent nature than exposures to industrial workers.

B. Costs of Cleanup

1. *Factors influencing the cost of cleanup.* The cleanup of spilled PCBs from transformers and capacitors typically consists of a number of different measures: (1) Securing the spill site, (2) formulating a spill cleanup plan based on the nature of the spill, (3) removing or repairing the leaking equipment, (4) removing contaminated material (e.g., soil), (5) cleaning contaminated surfaces and decontaminating or removing equipment contaminated during cleanup, (6) properly disposing of contaminated materials, (7) ensuring proper cleanup by sampling and chemical analysis, and (8) restoring the site.

The costs associated with phases (1), (2), (3), and (8) above are fairly fixed and will not vary significantly with more, less stringent cleanup requirements. The costs associated with cleanup phases (4), (5), (6), and (7) above are the more variable elements influencing the total cost of cleanup and are affected by several factors, including the concentration of PCBs spilled, the amount of PCB material spilled, the size or boundary of the spill area (often influenced by the time lapse between spill occurrence and cleanup), and the nature and stringency of cleanup requirements.

According to information gathered by OTS staff in telephone surveys and, in a few cases, written comments, the two most significant cost factors associated with various target cleanup levels are: (1) The number of times cleanup crews have to be sent to the site; and (2) whether or not postcleanup sampling is required. The imposition of sampling costs automatically has the effect of requiring that cleanup crews have to make at least two trips to the site (at least once to clean and at least once to restore the site after the sampling results have verified cleanup). The more stringent cleanup requirements are, the more likely that more than one attempt at cleanup will have to be made and that more than one set of samples will have to be taken.

Thus, the effect of stringent cleanup requirements coupled with requirements for postcleanup verification by sampling is to (1) mitigate exposures by ensuring a greater degree of cleanup; (2) exacerbate exposures by leaving the site open for a longer period of time; and (3) increase the costs of complying with the policy. EPA weighed these countervailing considerations in establishing the various cleanup requirements in the TSCA policy. The balance between the benefits associated with potential risk reductions on the one hand, and potential additional risks and costs imposed by more stringent requirements on the other, weigh out differently depending on the potential for exposure and the degree of certainty that less stringent requirements will result in adequate cleanup.

As is discussed below, EPA has limited data on the cost of cleanup, particularly in the area of cleaning soil

surfaces such as metal or concrete to various levels. Further, the data that are available cannot readily be analyzed to determine the impact of variables other than the degree of cleanup and the extent of sampling performed at the site (e.g., amount spilled, types of ground materials or surfaces contaminated, and time lapse between spill occurrence and cleanup). EPA has evaluated available data and estimated the ranges of incremental costs associated with cleanup to various levels.

a. *Cleanup of spills in soil, sand, gravel, etc.* Available information suggests that the cost of cleanup of soil to "background" levels of PCBs can be 3 to 15 times greater than the cost of cleanup to 50 ppm. Further, since PCBs are ubiquitous in the enviroment and are found at low concentrations throughout the world (in areas where PCBs have never been used), target levels for PCBs spill cleanup which are lower than background levels in certain areas can result in very high cleanup costs. Large volumes of soil may have to be excavated for the removal of what may ultimately be only 1 to 2 pounds of PCBs. For example, there are about 2 pounds of PCBs present in four truckloads of soil containing 25 ppm PCBs. After excavation, these 2 pounds of PCBs may, under the PCB disposal regulations, be transferred to a PCB landfill for disposal.

EPA estimated the costs associated with the cleanup of a PCB spill in soil using two sets of available data on the costs of cleanup. One set of data on the costs associated with the cleanup of a 0.5 acre site contaminated with PCBs and PCB Equipment suggests that cleanup to 50 ppm would cost on the order of $105,000; cleanup to 25 ppm would cost on the order of $214,000; and cleanup to "background" levels of PCBs would cost on the order of $279,000. Using these data to estimate cleanup costs for different target levels of soil cleanup for typical PCB Capacitor spills, EPA estimates that the cleanup of a typical PCB Capacitor spill to 50 ppm would cost on the order of $2,100; cleanup to 25 ppm PCBs would cost on the order of $4,280; and cleanup to "background" levels of PCBs would cost on the order of $5,580.

EPA also estimated the costs of cleanup to various target levels using data on the cost of cleanup in actual capacitor spill situations. These data indicate that while the costs of cleanup to level between 50 and 25 ppm do not vary significantly, cleanup to levels lower than 25 and 20 ppm result in dramatically higher costs of cleanup. Based on these actual capacitor spill cleanup data, the cleanup of a typical PCB Capacitor spill to 50 or 25 ppm would cost on the order of $4,000; cleanup to 10 ppm PCBs would cost on the order of $10,000; and cleanup to background levels could cost on the order of $60,000 to $140,000.

EPA estimates that the actual incremental costs of cleaning typical capacitor spills to various levels would fall in the range between the two sets of estimates. Assuming that there are about 20,000 PCB Capacitor spills each year, EPA's estimates of the total annual cost of cleanup of PCB Capacitor spills to 50 ppm, 25 ppm, and "background" levels is $42–80 million, $80–88 million, and $112 million to over $2 billion, respectively.

Alternatively, information indicates that for lower concentration spills (i.e., spills of material containing less than 500 ppm PCBs—generally from oil-filled electrical equipment), cleanup of visible traces plus a 1 foot boundary of spills onto soil and other ground media within a few days of the spills will sufficiently ensure that PCB concentrations in the soil will be cleaned to a few parts per million. Therefore, the additional costs associated with sampling may not be justified by any incremental risk reduction where the spill is of low-concentration spills.

b. *Cleanup of PCBs spilled on surfaces.* EPA lacks data on the practicality, feasibility, and incremental costs associated with the cleanup of PCBs on hard surfaces. Comments from utility representatives as well as EPA regional office personnel suggest that costs of cleaning solid surfaces are significantly influenced by the nature of the contaminated surface (i.e., whether it is a porous surface such as concrete or an inpervious surface such as metal). Thus, cleaning porous, hard surfaces to 1 $\mu g/10cm^2$ may be very difficult, if not impossible, to achieve through generally accepted methods of cleanup (i.e., scrubbing and cleansing of surfaces) because of the penetration of PCBs below the surface.

EPA has evaluated some data on the costs of cleaning PCB-contaminated surfaces to various levels. However, all of the available data are from historical PCB spill sites which are typically more difficult to clean than fresh spills. Further, EPA's experience suggests that the relative difficulty of cleaning porous surfaces versus impervious surfaces increases as the amount of time between spill occurrence and cleanup increases.

Surface cleanup standards which are not achievable would in effect require the breakup and removal of materials such as concrete. Data on the breakup, removal, and replacement of concrete materials at historical spill sites indicate that the costs of such remedial action may range from one to several million dollars. While historical sites generally involve more extensive areas of cleanup, both in terms of PCBs absorbed into the materials and the area of contamination, these data do suggest that there are significant costs associated with a removal requirement for solid surfaces. EPA, however, has no comparative cost data on the differences in cost between cleaning solid surfaces by conventional methods versus removing solid surfaces.

An EPA-sponsored Midwest Research Institute study of the removal of PCBs from surfaces such as painted and unpainted steel, asphalt, concrete block, wood, and poured concrete demonstrates fairly clearly that a time lapse of several days before initiation of cleanup can significantly impede the efficacy of surface cleanup methods. That study also suggests that the washing of rough, porous hard surfaces with solvent is not very effective in removing the spilled askarel PCBs. Cleanup by washing/wiping within a few days following low concentration spills, however, is expected to be effective in reducing surface concentrations of PCBs to levels which will not pose unreasonable risks. This is primarily because of the small amount of PCBs actually present in most mineral oil spills.

In lieu of potentially impracticable surface cleanup standards, or removal standards, EPA also considered the option of requiring cleanup to an achievable surface cleanup standard and encapsulation with an appropriate epoxy resin or other sealant. Anecdotal information suggests that encapsulation is likely to be less costly than removal of solid surfaces by 1 to 3 orders of magnitude. While EPA believes that encapsulation can significantly reduce both dermal and inhalation exposure to residual PCB concentrations on solid surfaces, the Agency is aware of no empirical data which verify the effectiveness of encapsulants in reducing exposures. Ancedotal information provided by EPA regions and members of the regulated community raises doubts as to the long-term effectiveness of encapsulation because of the tendency of many sealants to peel or chip off over time.

In the absence of adequate data on the costs of cleaning fresh PCB spills on solid surfaces, the standards which appear in the TSCA policy for the cleanup of hard surfaces primarily reflect concerns about the potential for

exposure to these levels of residual PCBs which remain after cleanup. The TSCA policy does allow for less stringent cleanup options coupled with EPA-approved encapsulation measures where the spill occurs on porous surfaces outdoors (or on low-contact surfaces indoors in restricted-access facilities) because of concerns about the achievability of more stringent cleanup levels on porous surfaces. The encapsulation option is allowed for certain low-contact solid surfaces in order to allow the development of data on the efficacy of encapsulation in mitigating exposures to residual PCBs on solid surfaces.

2. *Conclusions about costs of cleanup.* The costs associated with the cleanup of spills of PCBs into soils and other similar materials are principally influenced by the area of contamination and the target levels set for cleanup. The lower the target level, the more testing, excavation, and removal, and the higher the cost. The cleanup of spilled PCBs in soil from PCB Transformers and Capacitors to "background" levels of PCBs costs three times as much to an order of magnitude more than cleanup to 50 ppm, and several times as much as cleanup to 25 ppm. On an annual basis, hundreds of millions of dollars are being spent for the cleanup of PCBs from transformer and capacitor spills.

EPA expects that the costs associated with the cleanup of contaminated surfaces will increase as cleanup levels or standards decrease and that at some point, excavation and removal may be the only choice to reduce PCB levels further. Data on the practicality, feasibility, and cost of cleanup to the levels discussed in this TSCA policy and data on the effectiveness and cost of encapsulation are necessary so that EPA can more accurately weigh the cost effectiveness of various surface cleanup requirements.

EPA is seeking data on the incremental costs associated with the cleanup of different types of surfaces to the levels discussed in this TSCA policy. In the absence of data to support a determination that these levels are not practically achievable at a reasonable cost (or data that support a determination that exposures will be significantly lower than those assumed by current Agency assessments), the policy includes the surface cleanup standards discussed in Unit IV.

EPA is also seeking data on the effectiveness (in terms of risk reduction), cost, and long-term durability of the use of sealants and encapsulating materials. If encapsulating materials and sealants can be demonstrated to be more cost effective than removal, EPA will retain the provisions allowing, for low-contact, porous surfaces, the use of such sealants in lieu of cleanup to more stringent standards.

C. Risk/Benefit Discussion of Cleanup Requirements

1. *Scope and general requirements of the policy.* The TSCA policy applies to spills which EPA can require to be cleaned under TSCA enforcement authority (spills of 50 ppm or greater PCBs which generally occur during EPA-regulated use, processing, distribution in commerce, or storage of PCBs) and which occur after the effective date of the policy. The policy is prospective because historical spills tend to involve more extensive areas of contamination and because many of the requirements of the policy are based on the assumption that the spill area will be cleaned or contained within 1 or 2 days of spill occurrence.

PCB is an oily material which leaves stains on soil and surfaces. While EPA recognizes that the visibility of PCBs on soils and surfaces is inversely related to the amount of time elapsed from release to discovery and that weather conditions may also influence spill visibility, EPA expects that for the majority of PCB spills, visible traces of PCBs will remain at the time of spill discovery. The exception to this rule is for spills which are undiscovered for an extended period of time and spills which are followed by adverse/severe weather conditions. In these cases, the TSCA policy requires the use of an appropriate statistical sampling scheme to define the boundaries of the spill area.

EPA believes that one of the principal ways of minimizing human and environmental exposures to spilled PCBs is to prevent the spread of spilled PCBs (e.g., by cordoning off the area) and to initiate cleanup actions as soon as practically possible. This minimizes the likelihood that materials will be spread beyond the spill area through tracking and runoff and reduces the probability of surface water and drinking water contamination. EPA believes that response time in initiating remedial action may be one of the most significant factors influencing the magnitude of risks following PCB spills, especially in residential areas.

2. *Spills of low concentrations PCBs involving less than one lb of PCBs.* Where the spilled material is relatively low in PCB concentration (i.e., containing 50 ppm or greater, but less than 500 ppm PCBs), the TSCA policy allows cleanup in accordance with procedural performance requirements (i.e., double wash/rinse for solid surfaces and removal of visible traces plus a 1-foot lateral boundary for soil and other ground media provided that the minimum depth of excavation is 10 inches) rather than requiring sampling to verify that numerical cleanup standards have been met.

The procedural requirements are based upon data indicating that for low-concentration spills, double washing/rinsing of surfaces and removal of visible traces plus a buffer on soil will successfully reduce the PCB concentration in the spill area to the numerical standards specified for the higher concentration spills. The essential difference is that for spills of low-concentration PCBs, sampling is not required to verify that numerical standards are achieved, provided that the responsible party or designated agent certifies that the cleanup has been performed in accordance with all of the requirements of the policy. The enforcement provisions of the policy specify that should the sampling data indicate that the numerical standards have not been met, or that the area cleaned does not encompass all areas of actual contamination (as determined by sampling or indicated by remaining visible traces), the regional office will require additional cleanup.

3. *Spills of 500 ppm or greater PCBs and spills of low-concentration PCBs of more than 1 lb PCBs by weight—a. Spills in nonrestricted access areas.* The most stringent requirements for the cleanup of spilled PCBs apply to PCB spills in residential/commercial/unrestricted access rural areas. The TSCA policy requires that materials such as household furnishings, toys, and swingsets be disposed of rather than decontaminated. Generally, these types of materials pose a high potential for exposure and are very difficult to clean. Indeed, the costs of cleanup of these types of materials to the limit of detection of PCBs (which would be required given the high potential for repeated daily exposures) would in many cases exceed replacement costs.

Soil and other similar materials in residential/commercial areas must be cleaned up to 10 ppm PCBs, and a cap of clean materials containing less than 1 ppm PCBs (the average background level for PCBs in soil) equal to a minimum of 10 inches must be placed on top of the excavated area. The OHEA risk assessment for PCBs in soil indicates that 1 to 6 ppm PCBs in 0.5 acre of residential soil is associated with a 1×10^{-6} level of oncogenic risk and that placing a 10-inch cap of clean soil reduces this level of oncogenic risk by an order of magnitude. PCB Capacitors

spills typically result in the contamination of significantly less than 0.5 acre.

For an average PCB Capacitor spill, the difference in costs associated with cleaning up PCBs to 10 ppm versus to below 1 ppm ("background" levels) in a residential area is estimated to be about $500. Assuming 9,000 PCB Capacitor spills each year in residential areas, the estimated incremental costs associated with cleanup of these spills to less than 1 ppm versus cleanup to 10 ppm is $4.5 million.

Thus, EPA believes that soil containing 10 ppm PCBs (covered by a cap containing PCBs below the practical limits of quantitation) in a residential/commercial area would not present unreasonable risks to public health or the environment.

The surface standards presented in the TSCA policy are based primarily on the potential for exposure to PCBs remaining on surfaces in residential/commercial areas and the estimated level of risk posed by these residual PCBs. EPA lacks data on the incremental costs associated with cleanup to different surface standards and is soliciting these data.

The TSCA policy does allow for less stringent surface cleanup options coupled with EPA-approved encapsulation measures where the spill occurs on porous, low-contact surfaces outdoors because of concerns about the achievability of more stringent cleanup levels on porous surfaces. The encapsulation option is allowed for low-contact solid surfaces outdoors in order to allow the development of data on the efficacy of encapsulation in mitigating exposures to residual PCBs on solid surfaces.

b. *Industrial and other restricted access spills.* Spills of PCBs in industrial areas and other restricted access locations would present lower risks than spills in residential/commercial areas because access to these areas is controlled. Inhalation exposure is considered to be the principal route of exposure to PCBs in soil, sand, or gravel in an industrial area. Dermal exposures would, however, be likely when PCBs are spilled on manned machinery and equipment. EPA believes that the level of risk posed by 25 ppm PCB in soil at a restricted access facility would not present significant risks either to the typical worker or to the general public. EPA also believes that the surface standards of 100 μg/100 cm^2 for low-contact outdoor surfaces and 10 μg/100 cm^2 for indoor low-contact surfaces (and vaults) and high-contact surfaces in a restricted access industrial facility would not present significant risks to workers or to the general population.

Further, there are significant costs associated with the cleanup of soil, sand, gravel, and other similar materials in an industrial facility to background levels compared to cleanup to 25 ppm PCBs. Thus, EPA believes that cleanup of soil, sand, gravel, and other similar materials in an industrial facility to 25 ppm would not present unreasonable risks to public health or the environment.

The surface standards for industrial facilities and other restricted access locations which are presented in the TSCA policy are based on the expected level of exposure to residual PCBs left on industrial surfaces after cleanup. EPA lacks data on the incremental costs associated with cleanup to different standards and is soliciting these data. The TSCA policy does allow for less stringent cleanup options coupled with EPA-approved encapsulation measures where the spill occurs on porous, low-contact surfaces because of concerns about the achievability of more stringent cleanup levels on porous surfaces. The encapsulation option is allowed for certain low-contact solid surfaces in order to allow the development of data on the efficacy of encapsulation in mitigating exposures to residual PCBs on solid surfaces.

c. *Outdoor electrical substation spills.* The least stringent requirements for the cleanup of spilled PCBs apply to spills in outdoor electrical substations. This reflects the lower potential for exposures and fewer people potentially at risk of exposures to PCBs spilled in these areas. Spills of PCBs from PCB Equipment into solid materials such as soils in electrical substations must be cleaned up to 25 ppm PCBs or to 50 ppm PCBs, provided that a label is placed in the spill area indicating that a PCB spill has occurred. The OHEA risk assessment for PCBs in soil indicates that a PCB level of 50 ppm PCBs in soil located more than 1 kilometer from a population would present less than a 1×10^{-7} level of oncogenic risk. This risk assessment assumes only inhalation exposures at distances of 1.0 kilometer (or approximately 1,093 yards) from the spill site.

The surface standards which appear in the TSCA policy are primarily based on the expected exposures and risks posed by contact with the residual PCBs. EPA lacks data on the incremental costs associated with cleanup to higher or lower levels.

D. Scope of the Policy

EPA expects the large majority of PCB spills subject to decontamination under TSCA to conform to the typical spill scenarios considered in developing the TSCA policy. However, some small percentage of spills will warrant more stringent cleanup requirements because of additional routes of exposure or significantly greater exposures than those associated with typical PCB spills. Further, there may be exceptional spill situations which require less stringent cleanup or a different approach to cleanup because of factors associated with the particular spill which mitigate expected exposures and risks or which make cleanup to these requirements impracticable. Therefore, the policy (1) excludes certain situations from the scope of this policy; (2) discusses other spill situations which may warrant the use of EPA authority to require more stringent requirements and (3) retains EPA flexibility to allow alternative or less stringent decontamination measures when the responsible party demonstrates the presence of risk-mitigating factors or demonstrates the impracticability of applying this policy to a particular spill situation. For those exceptional spill situations which are excluded from the policy or in which EPA may exercise flexibility based on site-specific considerations, the EPA regions have the authority to determine cleanup requirements.

The TSCA policy excludes certain spill situations from the automatic applications of the numerical cleanup requirements in the policy (i.e. spills directly into water, sewers, vegetable gardens, and grazing areas, and spills which directly contaminate surface waters prior to cleanup) because those situations will always present routes of exposure to PCBs which are not associated with the typical spills considered in developing the TSCA policy. These exceptional spill situations may not always require more extensive cleanup. However, they will always require some level of site-specific analysis to determine appropriate cleanup measures.

Although EPA expects the majority of remaining spills to be subject to this policy, occasionally the site-specific characteristics (e.g., depth to ground water, type of soil, and the presence of a shallow well) may pose exceptionally high potential for ground water contamination by residual PCBs (i.e., those PCBs remaining after cleanup to the standards specified in this policy). Spills which pose a high degree of potential for ground water contamination are not automatically excluded from the policy as are spills into surface waters because the presence of such potential may not be

readily apparent. EPA feels that automatically excluding such spills from the scope of the policy could result in the delay of cleanup—a particularly undesirable outcome if potential ground water contamination is a significant concern. The Agency will, however, require cleanup to more stringent decontamination standards upon making a determination that such additional cleanup is necessary because of ground water concerns associated with residual contamination based upon comparison of the site characteristics to ground water modeling and exposure assessments which have been developed by EPA in support of this policy.

Additionally, spill situations involving significantly larger areas of contamination than those assumed in developing this policy (e.g., <0.5 acre in soil and 550 ft^2 on indoor surfaces), spills in areas involving repeated daily contact such that the potential for dermal contact may be significantly higher than assumed in developing this policy (e.g., spills resulting from violent equipment rupture during which PCDFs and/or PCDDs were formed, and spills onto farmland on which root crops are grown) may require more stringent levels of cleanup. In such situations, the Regional Administrator may require cleanup in addition to that required by the policy. In those circumstances, the Regional Administrator must notify the Director, Office of Toxic Substances, of his finding and the basis for the finding.

The TSCA policy also retains EPA's flexibility to allow less stringent, or alternative decontamination measures based upon site-specific considerations. EPA will exercise this flexibility if the responsible party demonstrates that cleanup to the numerical decontamination levels is clearly unwarranted because of risk-mitigating factors, or that compliance with the procedural requirements or numerical standards in the policy is impracticable at a particular site. For example, the responsible party may show that a dirt road need not be decontaminated to the levels in this policy because exposure to residual PCB concentrations on a dirt road will be significantly mitigated when the road is paved with concrete or asphalt in the immediate future. Alternatively, the responsible party may demonstrate that cleanup to the numerical standards in the policy may threaten the structural integrity of major equipment installations or buildings.

For purposes of delineating the scope of the TSCA policy, as well as to provide EPA regional offices and the regulated community with guidance on whether a particular spill may require more stringent standards for cleanup, EPA has performed some preliminary analyses of these potentially higher-risk spill situations. EPA evaluated the exposures and risks associated with these potential higher-risk situations using reasonable worst-case assumptions to identify cases where strict application of the standards in this policy may be inappropriate. In addition, EPA believes that some spill situations may require special action (e.g., additional immediate actions to prevent contamination of sewers where there is a real potential for such contamination).

1. *Spills into sewers.* EPA has not assessed the exposures associated with the release of PCBs into sewers because of the lack of information about the behavior of spilled PCBs in a system of sewer pipes. Being denser than water, PCBs may collect in depressions and irregularities in the sewer pipes, providing a long-term source of release of PCBs into the environment. On the other hand, the PCBs may be carried from place to place in the sewer system. Thus, there is no method for estimating which segments of the system are contaminated, what the concentration of PCBs is, or how long the PCBs will remain in the system. Because of the difficulty of evaluting the behavior of PCBs in sewer systems and because of the practical problems of decontaminating a sewer system, PCB spills into sewage are not covered by this policy. Each regional office will determine the requirements for adequate cleanup of sewer systems, treatment works, and sewage contaminated with PCBs on a case-by-case basis.

2. *Spills which may result in ingestion exposure through drinking water and fish.* To evaluate the potential for exposures through the ingestion of drinking water and/or fish contaminated with PCBs, EPA looked at four spill situations using reasonable worst-case assumptions: (1) PCBs are spilled into a pond and the sediment is cleaned to 10 ppm; (2) PCBs are spilled into a river and the sediment is cleaned to 10 ppm; (3) PCBs are spilled on the bank of a stream and the soil is cleaned to 25 ppm; and (4) PCBs are spilled on soil and cleaned to 25 ppm, assuming that the PCBs will enter ground water.

Preliminary results indicate that where PCBs enter surface water in a pond, the ingestion of fish and/or drinking water from the pond after the sediment has been cleaned to 10 ppm in accordance with the policy may result in significant human exposures. While rivers have higher flow rates than ponds, so that cleanup of river sediment to 10 ppm PCBs may not pose significant human exposures. PCB contamination in surface water poses important considerations in addition to the risks associated with residual PCB concentrations in sediment, in much the same way as sewer contamination. Thus, all spills directly into waterways and spills which contaminate waterways before cleanup are excluded from the TSCA policy.

Where PCBs are spilled near a waterway and the soil is cleaned to 25 ppm PCBs, PCBs can enter surface water through runoff from the contaminated bank. (EPA assumed that runoff into the stream occurs only after the spill area has been cleaned to 25 ppm.) Based on reasonable worst-case assumptions, the consumption of drinking water and/or fish from the stream for 70 years will not pose risks of concern and are therefore included in the scope of the policy. However, should the spill contaminate surface water cleanup, the spill must be cleaned to site-specific requirements. Therefore, the responsible party should take special measures to contain the spill area and prevent the spread of PCBs into the waterway.

In looking at the possible exposures associated with soil cleaned to 25 ppm through the ingestion of drinking water from contaminated ground water, the climate, soil and ground water configuration were assumed to be such as to maximize PCB concentrations in ground water. Significant risks may be posed by the ingestion of drinking water from very shallow wells (i.e., dug wells taking in water at the source of loading) in areas where soil characteristics and depth to aquifer maximize the potential for leaching into ground water. However, the ingestion of drinking water from a well located a horizontal distance of 50 meters from the spill site in these areas does not appear to pose significant risks. Thus, while the majority of spills will not result in unreasonable risks of human exposure due to ground water contamination, some unique spill scenarios will pose potential ingestion exposure through ground water contamination.

The TSCA policy specifically reserves EPA's authority to impose more stringent cleanup requirements in cases where site characteristics present special risks of ingestion of PCBs through ground water contamination. These spills are not automatically excluded from application of the policy because the potential for ground water contamination may not be readily apparent.

3. *Ingestion of milk from dairy cattle grazing on land contaminated with PCBs.* Using reasonable worst-case estimates, the Agency evaluated the potential risks to humans drinking milk from cattle which grazed on farmland where a PCB spill has been cleaned to 25 ppm. In the event of a spill on farmland, grazing dairy cattle can ingest the PCB-contaminated soil by consuming soil while grazing and from eating plants and roots from a PCB-contaminated site. The cattle can then accumulate unmetabolized residues of the PCBs in milk fat and excrete them through milk. Assuming that the contaminated milk is consumed by the farm residents, worst-case risk estimates indicate that reducing the PCB concentration in the soil to 10 or 25 ppm PCBs may not be adequate to prevent aganist unreasonable risks to human health.

4. *Ingestion of vegetables grown on contaminated home gardens and farmland.* EPA performed some preliminary analyses of the risks posed by the consumption of vegetables grown on a spill area cleaned to 25 ppm PCBs in the case of farmland and 10 ppm in the case of residential gardens. Assuming that vegetables grown on that garden or farm are used to provide the entire vegetable component of the diet of the site residents, cleaning soil to the levels in the policy may not be adequate. Vegetables are more likely to become contaminated through contact with contaminated dirt rather than through plant uptake. Thus, EPA believes that the potential for exposure to spilled PCBs through ingestion of crops grown on-site is greatest where the vegetables are root crop (e.g., carrots and potatoes).

5. *Exposure from larger spills.* In the above situations, the Agency focused on routes or ingestion exposure. The Agency has also evaluated situations which may significantly increase dermal or inhalation exposures. A principal factor in determining the magnitude of inhalation exposure is the size of the spill area. In estimating the risks associated with the cleanup levels in the policy for typical spills from electrical equipment, EPA relies on a risk assessment which assumes a contaminated area of 0.5 acre (see discussion in Unit VII.A.3.). Since the area of the typical spill addressed by this policy is expected to be 1/20 of the size assumed in the risk assessment, EPA believes that the cleanup standards in this policy sufficiently protect against unreasonable risks from inhalation exposure to PCBs remaining after the cleanup of a spill from electrical equipment. Cleanup standards for larger spills, that is, greater than 0.5 acre, would be established by the EPA regional office after a consideration of both the level of risk posed by cleanup to different levels and the incremental costs associated with such cleanup.

E. Issues

As is apparent in the discussion under Unit VII.A, there are gaps in the information which was available to the Agency in developing the TSCA policy, particularly in the area of cleanup costs. Given the limited data available to the Agency in developing a PCB Spills Cleanup Policy under the TSCA unreasonable risk standard, EPA has generally taken an environmentally conservative approach by establishing cleanup requirements based on risk and exposure considerations, and by excluding certain potentially higher-risk spill scenarios from the scope of the policy.

In a few areas where available data support the conclusion that less restrictive requirements will not compromise the protection of human health or the environment, the Agency has allowed less restrictive cleanup options (i.e., the exclusion of low-concentration spills from sampling requirements and the encapsulation option for spills on low-contact, porous surfaces). One purpose of allowing such options is to provide an opportunity for the development of additional information on the relative efficacy and costs of such options. EPA expects that the regulated industry will make good faith efforts to submit additional data gathered under the TSCA policy.

1. *Decontamination of surface.* The TSCA policy includes surface standards (in micrograms (μg) per 100 square centimeters (100 cm²)) for cleanup of PCB spills on hard surfaces such as wood, concrete and asphalt, and impervious surfaces such as metal or glass. For spills of PCBs at concentrations of 50 ppm or greater but less than 500 ppm onto hard or impervious surfaces in other than residential/commercial areas, this policy allows cleanup by double rinsing with an appropriate solvent.

The consensus proposal submitted by EDF, NRDC, EEI, NEMA, and CMA in May 1985 proposed that surfaces in residential areas be cleaned to 100 μg/100 cm². The consensus further proposed that surfaces in all other areas be cleaned either to 100 μg/100 cm² or triple rinsed at the discretion of the responsible party. A revised consensus proposal submitted in October 1986 modified the proposed surface standards to 10 μg/100 cm² for impervious surfaces in areas other than outdoor electrical substations. The revised proposal maintained the 100 μg/100 cm² level for all porous surfaces, arguing the infeasibility of cleaning to lower levels on porous surfaces.

After reviewing the consensus proposal, the Agency contemplated requiring that potential high-contact surfaces be cleaned to 10 μg/100 cm² and that spills of 500 ppm or greater on low-contact surfaces be cleaned to 100 μg/100 cm². The Agency further contemplated allowing the triple-rinse option for spills of 500 ppm or greater in reduced access areas and for all spills onto surfaces in outdoor electrical substations.

Lacking adequate information with which to assess potential exposures to surfaces cleaned to those levels, the Agency initiated some studies to (1) evaluate the risks posed by the 10 μg/100 cm² and 100 μg/100 cm² and (2) [illegible] the efficacy of rinsing/washing as a cleanup measure. The results of these studies indicate (a) that high contact surfaces such as those in residential play areas or manually operated machinery may require surface standards more stringent than the 10 μg to 100 μg/100 cm² standards and (b) that while even one wash or rinse of a solid surface would be adequate for mineral oil spills (50 to 499 ppm PCBs), the wash/rinse procedural performance standard is relatively ineffective in removing higher concentration PCBs from porous surfaces such as concrete block, wood, and asphalt. Presented below is additional detail on these preliminary studies and requests for data and information pertaining to the cleanup of surfaces.

2. *Surface wiping as a cleanup method.* EPA began the study with the goal of evaluating the effectiveness of a triple-rinse performance standard for decontamination of various types of surfaces where spills of askarel or mineral oil contaminated with PCBs have occurred. The cleaning agents tested were a water-based industrial cleaner (Penetone Power Cleaner 155) and kerosene, which are both widely used. A set of six rinses were performed on steel, wood, concrete, and asphalt 1 day after spilling a known amount of PCBs on the surfaces. Another set of six rinses was performed on each surface 8 days after spilling a known amount of PCBs on the surface.

The rinses were relatively effective in cleaning askarel spills on steel and in cleaning mineral oil from all surfaces (because of the low initial concentration of PCBs in mineral oil). However, six rinses with the industrial cleaner did not

successfully remove askarel fluid from asphalt, wood, or concrete. Further, the PCBs and the solvent washed through the wood, concrete, and asphalt, and distributed the PCBs into the material. This has caused EPA to question the advisability of setting a surface concentration for nonimpervious materials. Absent information on whether or not the PCBs absorbed into the material later come back to the surface and become available for exposure, EPA must assume that the absorbed PCBs provide a continuing source of exposure until the total amount of PCBs in the material is depleted.

EPA also found that the Penetone Power Cleaner was significantly less effective than the organic solvent in reducing the concentration of PCBs. Anecdotal information, however, suggests that the detergent cleaner may be more effective on soiled surfaces because of the tendency of PCBs to bind to dirt.

These observations have led to some determinations and raised several issues. Any comments or data in these areas are welcome.

a. EPA has determined that a procedural performance specifying one to three washes/rinses on solid surfaces within a few days after the spill occurs will result in adequate decontamination of mineral oil (50 to 499 ppm PCBs) spills on hard surfaces (including wood, asphalt, and concrete).

b. EPA has determined that water-based solvents may not be effective in removing PCBs from hard surfaces. Seven days after the occurrence of a spill, the efficacy of water-based rinses appeared to decrease markedly even on steel (some of the reduced effectiveness of the water-based solvent after 7 days may be due to the loss of PCBs from the surface through volatilization). EPA is currently performing a second phase of the solvent-rinse study with an organic solvent used widely in industry.

c. EPA has determined that when a spill of PCBs occurs on nonimpervious hard surfaces, the PCBs are absorbed into the material and may later become available for exposure. In the absence of adequate information, the Agency must presume that these PCBs do provide a source of exposure. The Agency solicits any available data in this area.

d. Therefore, for PCB spills on nonimpervious surfaces, the Agency considered (1) requiring removal and decontamination to a ppm standard, or (2) some combination of a wipe standard and encapsulation. EPA solicits available information on the costs of removing hard sufaces and the efficacy of encapsulation in preventing future exposures to PCBs which have been absorbed into materials such as concrete, wood, or asphalt. In its spills cleanup policy the Agency has allowed an encapsulation option on low contact surfaces for iterative purposes. EPA may not retain such an option if no information on the relative cost, effectiveness, and durability of encapsulation becomes available.

3. *Cost of cleanup.* The cost estimates for decontamination of soil and other solid materials to various levels (as discussed under Unit VII.B) were derived from limited available information. While the Agency has received information on the costs of actual cleanups, it is difficult to extrapolate information from these data because very little is known about the cleanup methods used, the time lapse between the spill and the cleanup effort, the amount spilled, and the size of the spill area.

In order to develop a more sound data base for comparing the costs of cleanup to various levels in soil, the Agency modeled the vertical and lateral spread of spilled PCBs in soil over time, using assumptions which maximize the spread of PCBs. These data on the distribution of PCB concentrations in the soil are being used to solicit information from cleanup firms on the incremental cost of cleanup to various levels.

Any available data on the incremental costs of decontamination to various levels are welcome. Such data will be most helpful if accompanied by the following information: (1) The amount and concentration of PCBs spilled, (2) the area and depth of the original contamination and the area cleaned, (3) the amount of soil or other material removed or the type of cleanup performed on hard surfaces, (4) postcleanup sampling data, (5) the amount of time between spill occurrence and initiation of cleanup, and (6) some description of the cleanup procedures (e.g., initial efforts to contain the spill or methods used to prevent the spreading of contamination during cleanup efforts). EPA especially needs data on the costs associated with cleanup of hard surfaces (see discussion in previous unit).

4. *Cleanup standards for higher-risk situations.* The discussion under Unit VII.D details the Agency's rationale for limitations on the scope of the policy. The Agency believes that some small percentage of spills will warrant more stringent cleanup requirements than specified in the TSCA policy because of additional routes of exposure or significantly greater exposures than those associated with typical PCB spills.

Therefore, certain spill situations are excluded from the scope of this policy. The spill situations which the TSCA policy excludes from automatic application of the numerical cleanup requirements in the policy (i.e., spills directly into water, sewers, vegetable gardens, and grazing areas and spills which contaminate surface waters prior to cleanup) are those which will always present routes of exposure to PCBs which are not associated with the typical spills considered in developing the TSCA policy. The TSCA policy indicates exceptional spill situations may not always require more extensive cleanup. However, they will always require some level of site-specific analysis to determine appropriate cleanup measures.

In addition, the TSCA policy discusses other spill situations which may warrant the use of EPA authority to require more stringent requirements (e.g., where depth to ground water, type of soil, and the presence of a shallow well may pose exceptionally high potential for ground water contamination by residual PCBs; spill situations involving significantly larger areas of contamination than those assumed in developing this policy; spills resulting from violent equipment rupture during which PCDFs and/or PCDDs were formed; and spills onto farmland on which root crops are grown). The TSCA policy provides that in such situations the Regional Administrator may require cleanup in addition to that required by the TSCA policy.

EPA does not currently have sufficient information on the factors which must be considered in determining the type and degree of cleanup in such situations. Therefore, while EPA headquarters will provide guidance to the EPA regional offices to the extent possible on a case-by-case basis, the TSCA policy does not specify cleanup measures for these spill scenarios. EPA solicits available data on such spill situations in order to provide better guidance to the regions and to develop uniform guidance for such situations where appropriate.

This document was submitted for review to the Office of Management and Budget (OMB).

Other Statutory Requirements

Regulatory Flexibility Act

The TSCA policy will have an insignificant impact on small entities as described in the Regulatory Flexibility Act (5 U.S.C. 601 et seq.).

Paperwork Reduction Act

The TSCA policy reiterates certain recordkeeping requirements for the disposal of PCBs which were approved under OMB control number 2070-0008. Some additional recordkeeping and reporting will be added through the rulemaking process: these requirements will be submitted to OMB for clearance.

List of Subjects in 40 CFR Part 761

Hazardous substances, Labeling, Polychlorinated biphenyls, Recordkeeping and reporting requirements, Environmental protection.

Dated: March 20, 1987.

Lee M. Thomas,

Administrator.

PART 761—[AMENDED]

Therefore, 40 CFR Chapter I Part 761 is amended as follows:

1. The authority citation for Part 761 is revised to read as follows:

Authority: 15 U.S.C. 2605, 2607, and 2611; Subpart G is also issued under 15 U.S.C. 2614 and 2616.

2. Subpart G, consisting at this time of §§ 761.120, 761.123, 761.125, 761.130, and 761.135, is added to read as follows:

Subpart G—PCB Spill Cleanup Policy

Sec.

761.120 Scope.
761.123 Definitions.
761.125 Requirements for PCB spill cleanup.
761.130 Sampling requirements.
761.135 Effect of compliance with this policy and enforcement.

Subpart G—PCB Spill Cleanup Policy

§ 761.120 Scope.

(a) *General.* This policy establishes criteria EPA will use to determine the adequacy of the cleanup of spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater. The policy applies to spills which occur after May 4, 1987.

(1) Existing spills (spills which occurred prior to May 4, 1987, are excluded from the scope of this policy for two reasons:

(i) For old spills which have already been discovered, this policy is not intended to require additional cleanup where a party has already cleaned a spill in accordance with requirements imposed by EPA through its regional offices, nor is this policy intended to interfere with ongoing litigation of enforcement actions which bring into issue PCB spills cleanup.

(ii) EPA recognizes that old spills which are discovered after the effective date of this policy will require site-by-site evaluation because of the likelihood that the site involves more pervasive PCB contamination than fresh spills and because old spills are generally more difficult to clean up than fresh spills (particularly on porous surfaces such as concrete). Therefore, spills which occurred before the effective date of this policy are to be decontaminated to requirements established at the discretion of EPA, usually through its regional offices.

(2) EPA expects most PCB spills subject to the TSCA PCB regulations to conform to the typical spill situations considered in developing this policy. This policy does, however, exclude from application of the final numerical cleanup standards certain spill situations from its scope: Spills directly into surface waters, drinking water, sewers, grazing lands, and vegetable gardens. These types of spills are subject to final cleanup standards to be established at the discretion of the regional office. These spills are, however, subject to the immediate notification requirements and measures to minimize further environmental contamination.

(3) For all other spills, EPA generally expects the decontamination standards of this policy to apply. Occasionally, some small percentage of spills covered by this policy may warrant more stringent cleanup requirements because of additional routes of exposure or significantly greater exposures than those assumed in developing the final cleanup standards of this policy. While the EPA regional offices have the authority to require additional cleanup in these circumstances, the Regional Administrator must first make a finding based on the specific facts of a spill that additional cleanup must occur to prevent unreasonable risk. In addition, before a final decision is made to require additional cleanup, the Regional Administrator must notify the Director, Office of Toxic Substances at Headquarters of his/her finding and the basis for the finding.

(4) There may also be exceptional spill situations that requires less stringent cleanup or a different approach to cleanup because of factors associated with the particular spill. These factors may mitigate expected exposures and risks or make cleanup to these requirements impracticable.

(b) *Spills that may require more stringent cleanup levels.* For spills within the scope of this policy, EPA generally retains, under § 761.135, the authority to require additional cleanup upon finding that, despite good faith efforts by the responsible party, the numerical decontamination levels in the policy have not been met. In addition, EPA foresees the possibility of exceptional spill situations in which site-specific risk factors may warrant additional cleanup to more stringent numerical decontamination levels than are required by the policy. In these situations, the Regional Administrator has the authority to require cleanup to levels lower than those included in this policy upon finding that further cleanup must occur to prevent unreasonable risk. The Regional Administrator will consult with the Director, Office of Toxic Substances, prior to making such a finding.

(1) For example, site-specific characteristics, such as short depth to ground water, type of soil, or the presence of a shallow well, may pose exceptionally high potential for ground water contamination by PCBs remaining after cleanup to the standards specified in this policy. Spills that pose such a high degree of potential for ground water contamination have not been excluded from the policy under paragraph (d) of this section because the presence of such potential may not be readily apparent. EPA feels that automatically excluding such spills from the scope of the policy could result in the delay of cleanup—a particularly undesirable outcome if potential ground water contamination is, in fact, a significant concern.

(2) In those situations, the Regional Administrator may require cleanup in addition to that required under § 761.125 (b) and (c). However, the Regional Administrator must first make a finding, based on the specific facts of a spill, that additional cleanup is necessary to prevent unreasonable risk. In addition, before making a final decision on additional cleanup, the Regional Administrator must notify the Director of the Office of Toxic Substances of his finding and the basis for the finding.

(c) *Flexibility to allow less stringent or alternative requirements.* EPA retains the flexibility to allow less stringent or alternative decontamination measures based upon site-specific considerations. EPA will exercise this flexibility if the responsible party demonstrates that cleanup to the numerical decontamination levels is clearly unwarranted because of risk-mitigating factors, that compliance with the procedural requirements or numerical standards in the policy is impracticable at a particular site, or that site-specific characteristics make the costs of cleanup prohibitive. The Regional Administrator will notify the Director of OTS of any decision and the basis for the decision to allow less stringent cleanup. The purpose of this notification

is to enable the Director of OTS to ensure consistency of spill cleanup standards under special circumstances across the regions.

(d) *Excluded spills.* (1) Although the spill situations in paragraphs (d)(2) (i) through (vi) of this section are excluded from the automatic application of final decontamination standards under § 761.125 (b) and (c), the general requirements under § 761.125(a) do apply to these spills. In addition, all of these excluded situations require practicable, immediate actions to contain the area of contamination. While these situations may not always require more stringent cleanup measures, the Agency is excluding these scenarios because they will always involve significant factors that may not be adequately addressed by cleanup standards based upon typical spill characteristics.

(2) For the spill situations in paragraphs (d)(2)(i) through (vi) of this section, the responsible party shall decontaminate the spill in accordance with site-specific requirements established by the EPA regional offices.

(i) Spills that result in the direct contamination of surface waters (surface waters include, but are not limited to, "waters of the United States" as defined in Part 122 of this chapter, ponds, lagoons, wetlands, and storage reservoirs).

(ii) Spills that result in the direct contamination of sewers or sewage treatment systems.

(iii) Spills that result in the direct contamination of any private or public drinking water sources or distribution systems.

(iv) Spills which migrate to and contaminate surface waters, sewers, or drinking water supplies before cleanup has been completed in accordance with this policy.

(v) Spills that contaminate animal grazing lands.

(vi) Spills that contaminate vegetable gradens.

(e) *Relationship of policy to other statutes.* (1) This policy does not affect cleanup standards or requirements for the reporting of spills imposed, or to be imposed, under other Federal statutory authorities, including but not limited to, the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA). Where more than one requirement applies, the stricter standard must be met.

(2) The Agency recognizes that the existence of this policy will inevitably result in attempts to apply the standards to situations within the scope of other statutory authorities. However, other statutes require the Agency to consider different or alternative factors in determining appropriate corrective actions. In addition, the types and magnitudes of exposures associated with sites requiring corrective action under other statutes often involve important differences from those expected of the typical, electrical equipment-type spills considered in developing this policy. Thus, cleanups under other statutes, such as RCRA corrective actions or remedial and response actions under SARA may result in different outcomes.

§ 761.123 Definitions.

For purposes of this policy, certain words and phrases are used to denote specific materials, procedures, or circumstances. The following definitions are provided for purposes of clarity and are not to be taken as exhaustive lists of situations and materials covered by the policy.

"Double wash/rinse" means a minimum requirement to cleanse solid surfaces (both impervious and nonimpervious) two times with an appropriate solvent or other material in which PCBs are at least 5 percent soluble (by weight). A volume of PCB-free fluid sufficient to cover the contaminated surface completely must be used in each wash/rinse. The wash/rinse requirement does not mean the mere spreading of solvent or other fluid over the surface, nor does the requirement mean a once-over wipe with a soaked cloth. Precautions must be taken to contain any runoff resulting from the cleansing and to dispose properly of wastes generated during the cleansing.

"High-concentration PCBs" means PCBs that contain 500 ppm or greater PCBs, or those materials which EPA requires to be assumed to contain 500 ppm or greater PCBs in the absence of testing.

"High-contact industrial surface" means a surface in an industrial setting which is repeatedly touched, often for relatively long periods of time. Manned machinery and control panels are examples of high-contact industrial surfaces. High-contact industrial surfaces are generally of impervious solid material. Examples of low-contact industrial surfaces include ceilings, walls, floors, roofs, roadways and sidewalks in the industrial area, utility poles, unmanned machinery, concrete pads beneath electrical equipment, curbing, exterior structural building components, indoor vaults, and pipes.

"High-contact residential/commercial surface" means a surface in a residential/commercial area which is repeatedly touched, often for relatively long periods of time. Doors, wall areas below 6 feet in height, uncovered flooring, windowsills, fencing, bannisters, stairs, automobiles, and children's play areas such as outdoor patios and sidewalks are examples of high-contact residential/commercial surfaces. Examples of low-contact residential/commercial surfaces include interior ceilings, interior wall areas above 6 feet in height, roofs, asphalt roadways, concrete roadways, wooden utility poles, unmanned machinery, concrete pads beneath electrical equipment, curbing, exterior structural building components (e.g., aluminum/vinyl siding, cinder block, asphalt tiles), and pipes.

"Impervious solid surfaces" means solid surfaces which are nonporous and thus unlikely to absorb spilled PCBs within the short period of time required for cleanup of spills under this policy. Impervious solid surfaces include, but are not limited to, metals, glass, aluminum siding, and enameled or laminated surfaces.

"Low-concentration PCBs" means PCBs that are tested and found to contain less than 500 ppm PCBs, or those PCB-containing materials which EPA requires to be assumed to be at concentrations below 500 ppm (i.e., untested mineral oil dielectric fluid).

"Nonimpervious solid surfaces" means solid surfaces which are porous and are more likely to absorb spilled PCBs prior to completion of the cleanup requirements prescribed in this policy. Nonimpervious solid surfaces include, but are not limited to, wood, concrete, asphalt, and plasterboard.

"Nonrestricted access areas" means any area other than restricted access, outdoor electrical substations, and other restricted access locations, as defined in this section. In addition to residential/commercial areas, these areas include unrestricted access rural areas (areas of low density development and population where access is uncontrolled by either man-made barriers or naturally occurring barriers, such as rough terrain, mountains, or cliffs).

"Other restricted access (nonsubstation) locations" means areas other than electrical substations that are at least 0.1 kilometer (km) from a residential/commercial area and limited by man-made barriers (e.g., fences and walls) to substantially limited by naturally occurring barriers such as mountains, cliffs, or rough terrain. These areas generally include industrial

facilities and extremely remote rural locations. (Areas where access is restricted but are less than 0.1 km from a residential/commercial area are considered to be residential/commercial areas.)

"Outdoor electrical substations" means outdoor, fenced-off, and restricted access areas used in the transmission and/or distribution of electrical power Outdoor electrical substations restrict public access by being fenced or walled off as defined under § 761.30(1)(1)(ii). For purposes of this TSCA policy, outdoor electrical substations are defined as being located at least 0.1 km from a residential/commercial area. Outdoor fenced-off and restricted access areas used in the transmission and/or distribution of electrical power which are located less than 0.1. km from a residential/commercial area are considered to be residential/commercial areas.

"PCBs" means polychlorinated biphenyls as defined under § 761.3. As specified under § 761.1(b), no requirements may be avoided through dilution of the PCB concentration.

"Requirements and standards" means:

(1) "Requirements" as used in this policy refers to both the procedural responses and numerical decontamination levels set forth in this policy as constituting adequate cleanup of PCBs.

(2) "Standards" refers to the numerical decontamination levels set forth in this policy.

"Residential/commercial areas" means those areas where people live or reside, or where people work in other than manufacturing or farming industries. Residential areas include housing and the property on which housing is located, as well as playgrounds, roadways, sidewalks, parks, and other similar areas within a residential community. Commercial areas are typically accessible to both members of the general public and employees and include public assembly properties, institutional properties, stores, office buildings, and transportation centers.

"Responsible party means the owner of the PCB equipment, facility, or other source of PCBs or his/her designated agent (e.g., a facility manager or foreman).

"Soil" means all vegetation, soils and other ground media, including but not limited to, sand, grass , gravel, and oyster shells. It does not include concrete and asphalt.

"Spill" means both intentional and unintentional spills, leaks, and other uncontrolled discharges where the release results in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases. This policy applies to spills of 50 ppm or greater PCBs. The concentration of PCBs spilled is determined by the PCB concentration in the material spilled as opposed to the concentration of PCBs in the material onto which the PCBs were spilled. Where a spill of untested mineral oil occurs, the oil is presumed to contain greater than 50 ppm, but less than 500 ppm PCBs and is subject to the relevant requirements of this policy.

"Spill area" means the area of soil on which visible traces of the spill can be observed plus a buffer zone of 1 foot beyond the visible traces. Any surface or object (e.g., concrete sidewalk or automobile) within the visible traces area or on which visible traces of the spilled material are observed is included in the spill area. This area represents the minimum area assumed to be contaminated by PCBs in the absence of precleanup sampling data and is thus the minimum area which must be cleaned.

"Spill boundaries" means the actual area of contamination as determined by postcleanup verification sampling or by precleanup sampling to determine actual spill boundaries. EPA can require additional cleanup when necessary to decontaminate all areas within the spill boundaries to the levels required in this policy (e.g., additional cleanup will be required if postcleanup sampling indicates that the area decontaminated by the responsible party, such as the spill area as defined in this section, did not encompass the actual boundaries of PCB concentration).

"Standard wipe test" means, for spills of high-concentration PCBs on solid surfaces, a cleanup to numerical surface standards and sampling by a standard wipe test to verify that the numerical standards have been met. This definition constitutes the minimum requirements for an appropriate wipe testing protocol. A standard-size template (10 centimeters (cm) x 10 cm) will be used to delineate the area of cleanup; the wiping medium will be a gauze pad or glass wool of known size which has been saturated with hexane. It is important that the wipe be performed very quickly after the hexane is exposed to air. EPA strongly recommends that the gauze (or glass wool) be prepared with hexane in the laboratory and that the wiping medium be stored in sealed glass vials until it is used for the wipe test. Further, EPA requires the collection and testing of field blanks and replicates.

§ 761.125 Requirements for PCB spill cleanup.

(a) *General.* Unless expressly limited, the reporting, disposal, and precleanup sampling requirements in paragraphs (a)(1) through (3) of this section apply to all spills of PCBs at concentrations of 50 ppm or greater which are subject to decontamination requirements under TSCA, including those spills listed under § 761.120(b) which are excluded from the cleanup standards at paragraphs (b) and (c) of this section.

(1) *Reporting requirements.* The reporting in paragraph (a)(1) (i) through (iv) of this section is required in addition to applicable reporting requirements under the Clean Water Act (CWA) or the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA). For example, under the National Contingency Plan all spills involving 10 pounds or more of PCB material must currently be reported to the National Response Center (1-800-424-8802). The requirements in paragraphs (a)(1) (i) through (iv) of this section are designed to be consistent with existing reporting requirements to the extent possible so as to minimize reporting burdens on governments as well as the regulated community.

(i) Where a spill directly contaminates surface water, sewers, or drinking water supplies, as discussed under § 761.120(d), the responsible party shall notify the appropriate EPA regional office (the Office of Pesticides and Toxic Substances Branch) and obtain guidance for appropriate cleanup measures in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

(ii) Where a spill directly contaminates grazing lands or vegetable gardens, as discussed under § 761.120(d), the responsible party shall notify the appropriate EPA regional office (the Office of Pesticides and Toxic Substances Branch) and proceed with the immediate requirements specified under paragraph (b) or (c) of this section, depending on the source of the spill, in the shortest possible time after discovery, but in no case later than 24 hours after discovery.

(iii) Where a spill exceeds 10 pounds of PCB material (generally 1 gallon of PCB dielectric fluid) and is not addressed in paragraph (a)(1) (i) or (ii) of this section, the responsible party will notify the appropriate EPA regional office and proceed to decontaminate the spill area in accordance with this TSCA policy in the shortest possible time after

discovery, but in no case later than 24 hours after discovery. For purposes of the notification requirement, the 10 pounds are measured by the weight of the PCB-containing material spilled rather than by the weight of only the PCBs spilled.

(iv) Spills of 10 pounds or less, which are not addressed in paragraph (a)(1) (i) or (ii) of this section, must be cleaned up in accordance with this policy (in order to avoid EPA enforcement liability), but notification of EPA is not required.

(2) *Disposal of cleanup debris and materials.* All concentrated soils, solvents, rags, and other materials resulting from the cleanup of PCBs under this policy shall be properly stored, labeled, and disposed of in accordance with the provisions of § 761.60.

(3) *Determination of spill boundaries in the absence of visible traces.* For spills where there are insufficient visible traces yet there is evidence of a leak or spill, the boundaries of the spill are to be determined by using a statistically based sampling scheme.

(b) *Requirements for cleanup of low-concentration spills which involve less than 1 pound of PCBs by weight (less than 270 gallons of untested mineral oil)*—(1) *Decontamination requirements.* Spills of less than 270 gallons of untested mineral oil, low-concentration PCBs, as defined under § 761.123, which involve less than 1 pound of PCBs by weight (e.g., less than 270 gallons of untested mineral oil containing less than 500 ppm PCBs) shall be cleaned in the following manner:

(i) Solid surfaces must be double washed/rinsed (as defined under § 761.123); except that all indoor, residential surfaces other than vault areas must be cleaned to 10 micrograms per 100 square centimeters (10 $\mu g/100\ cm^2$) by standard commercial wipe tests.

(ii) All soil within the spill area (i.e., visible traces of soil and a buffer of 1 lateral foot around the visible traces) must be excavated, and the ground be restored to its original configuration by back-filling with clean soil (i.e., containing less than 1 ppm PCBs).

(iii) Requirements of paragraph (b)(1) (i) and (ii) of this section must be completed within 48 hours after the responsible party was notified or became aware of the spill.

(2) *Effect of emergency or adverse weather.* Completion of cleanup may be delayed beyond 48 hours in case of circumstances including but not limited to, civil emergency, adverse weather conditions, lack of access to the site, and emergency operating conditions. The occurrence of a spill on a weekend or overtime costs are not acceptable reasons to delay response. Completion of cleanup may be delayed only for the duration of the adverse conditions. If the adverse weather conditions, or time lapse due to other emergency, has left insufficient visible traces, the responsible party must use a statistically based sampling scheme to determine the spill boundaries as required under paragraph (a)(3) of this section.

(3) *Records and certification.* At the completion of cleanup, the responsible party shall document the cleanup with records and certification of decontamination. The records and certification must be maintained for a period of 5 years. The records and certification shall consist of the following:

(i) Identification of the source of the spill (e.g., type of equipment).

(ii) Estimated or actual date and time of the spill occurrence.

(iii) The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

(iv) A brief description of the spill location.

(v) Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces, and a brief description of the sampling methodology used to establish the spill boundaries.

(vi) A brief description of the solid surfaces cleaned and of the double wash/rinse method used.

(vii) Approximate depth of soil excavation and the amount of soil removed.

(viii) A certification statement signed by the responsible party stating that the cleanup requirements have been met and that the information contained in the record is true to the best of his/her knowledge.

(ix) While not required for compliance with this policy, the following information would be useful if maintained in the records:

(A) Additional pre- or post-cleanup sampling.

(B) The estimated cost of the cleanup by man-hours, dollars, or both.

(C) *Requirements for cleanup of high-concentration spills and low-concentration spills involving 1 pound or more PCBs by weight (270 gallons or more of untested mineral oil).* Cleanup of low-concentration spills involving 1 lb or more PCBs by weight and of all spills of materials other than low-concentration materials shall be considered complete if all of the immediate requirements, cleanup standards, sampling, and recordkeeping requirements of paragraphs (c) (1) through (5) of this section are met.

(1) *Immediate requirements.* The four actions in paragraphs (c)(1) (i) through (iv) of this section must be taken as quickly as possible and within no more than 24 hours (or within 48 hours for PCB Transformers) after the responsible party was notified or became aware of the spill, except that actions described in paragraphs (c)(1) (ii) through (iv) of this section can be delayed beyond 24 hours if circumstances (e.g., civil emergency, hurricane, tornado, or other similar adverse weather conditions, lack of access due to physical impossibility, or emergency operating conditions) so require for the duration of the adverse conditions. The occurrence of a spill on a weekend or overtime costs are not acceptable reasons to delay response. Owners of spilled PCBs who have delayed cleanup because of these types of circumstances must keep records documenting the fact that circumstances precluded rapid response.

(i) The responsible party shall notify the EPA regional office and the NRC as required by § 761.125(a)(1) or by other applicable statutes.

(ii) The responsible party shall effectively cordon off or otherwise delineate and restrict an area encompassing any visible traces plus a 3-foot buffer and place clearly visible signs advising persons to avoid the area to minimize the spread of contamination as well as the potential for human exposure.

(iii) The responsible party shall record and document the area of visible contamination, noting the extent of the visible trace areas and the center of the visible trace area. If there are no visible traces, the responsible party shall record this fact and contact the regional office of the EPA for guidance in completing statistical sampling of the spill area to establish spill boundaries.

(iv) The responsible party shall initiate cleanup of all visible traces of the fluid on hard surfaces and initiate removal of all visible traces of the spill on soil and other media, such as gravel, sand, oyster shells, etc.

(v) If there has been a delay in reaching the site and there are insufficient visible traces of PCBs remaining at the spill site, the responsible party must estimate (based on the amount of material missing from the equipment or container) the area of the spill and immediately cordon off the area of suspect contamination. The responsible party must then utilize a statistically based sampling scheme to identify the boundaries of the spill area as soon as practicable.

(vi) Although this policy requires certain immediate actions, as described in paragraphs (c)(1)(i) through (iv) of this section, EPA is not placing a time limit on completion of the cleanup effort since the time required for completion will vary from case to case. However, EPA expects that decontamination will be achieved promptly in all cases and will consider promptness of completion in determining whether the responsible party made good faith efforts to clean up in accordance with this policy.

(2) *Requirements for decontaminating spills in outdoor electrical substations.* Spills which occur in outdoor electrical substations, as defined under § 761.123, shall be decontaminated in accordance with paragraphs (c)(2)(i) and (ii) of this section. Conformance to the cleanup standards under paragraphs (c)(2)(i) and (ii) of this section shall be verified by post-cleanup sampling as specified under § 761.130. At such times as outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the nonrestricted access requirements under paragraph (c)(4) of this section.

(i) Contaminated solid surfaces (both impervious and non-impervious) shall be cleaned to a PCB concentration of 100 micrograms (μg)/100 square centimeters (cm^2) (as measured by standard wipe tests).

(ii) At the option of the responsible party, soil contaminated by the spill will be cleaned either to 25 ppm PCBs by weight, or to 50 ppm PCBs by weight provided that a label or notice is visibly placed in the area. Upon demonstration by the responsible party that cleanup to 25 ppm or 50 ppm will jeopardize the integrity of the electrical equipment at the substation, the EPA regional office may establish an alternative cleanup method or level and place the responsible party on a reasonably timely schedule for completion of cleanup.

(3) *Requirements for decontaminating spills in other restricted access areas.* Spills which occur in restricted access locations other than outdoor electrical substations, as defined under § 761.123, shall be decontaminated in accordance with paragraph (c)(3)(i) through (v) of this section. Conformance to the cleanup standards in paragraph (c)(3)(i) through (v) of this section shall be verified by postcleanup sampling as specified under § 761.130. At such times as restricted access areas other than outdoor electrical substations are converted to another use, the spill site shall be cleaned up to the nonrestricted access area requirements of paragraph (c)(4) of this section.

(i) High-contact solid surfaces, as defined under § 761.163 shall be cleaned to 10 μg/100 cm^2 (as measured by standard wipe tests).

(ii) Low-contact, indoor, impervious solid surfaces will be decontaminated to 10 μg/100 cm^2.

(iii) At the option of the responsible party, low-contact, indoor, nonimpervious surfaces will be cleaned either to 10 μg/100 cm^2 or to 100 μg/100 cm^2 and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if he/she determined that if the encapsulation failed the failure would create an imminent hazard at the site.

(iv) Low-contact, outdoor surfaces (both impervious and nonimpervious) shall be cleaned to 100 μg/100 cm^2.

(v) Soil contaminated by the spill will be cleaned to 25 ppm PCBs by weight.

(4) *Requirements for decontaminating spills in nonrestricted access areas.* Spills which occur in nonrestricted access locations, as defined under § 761.123, shall be decontaminated in accordance with paragraphs (c)(4)(i) through (v) of this section. Conformance to the cleanup standards at paragraphs (c)(4)(i) through (v) of this section shall be verified by postcleanup sampling as specified under § 761.130.

(i) Furnishings, toys, and other easily replaceable household items shall be disposed of in accordance with the provisions of § 761.60 and replaced by the responsible party.

(ii) Indoor solid surfaces and high-contact outdoor solid surfaces, defined as high contact residential/commercial surfaces under § 761.123, shall be cleaned to 10 μg/100 cm^2 (as measured by standard wipe tests).

(iii) Indoor vault areas and low-contact, outdoor, impervious solid surfaces shall be decontaminated to 10 μg/100 cm^2.

(iv) At the option of the responsible party, low-contact, outdoor, nonimpervious solid surfaces shall be either cleaned to 10 μg/100 cm^2 or cleaned to 100 μg/100 cm^2 and encapsulated. The Regional Administrator, however, retains the authority to disallow the encapsulation option for a particular spill situation upon finding that the uncertainties associated with that option pose special concerns at that site. That is, the Regional Administrator would not permit encapsulation if he/she determined that if the encapsulation failed the failure would create an imminent hazard at the site.

(v) Soil contaminated by the spill will be decontaminated to 10 ppm PCBs by weight provided that soil is excavated to a minimum depth of 10 inches. The excavated soil will be replaced with clean soil, i.e., containing less than 1 ppm PCBs, and the spill site will be restored (e.g., replacement of turf).

(5) *Records.* The responsible party shall document the cleanup with records of decontamination. The records must be maintained for a period of 5 years. The records and certification shall consist of the following:

(i) Identification of the source of the spill, e.g., type of equipment.

(ii) Estimated or actual date and time of the spill occurrence.

(iii) The date and time cleanup was completed or terminated (if cleanup was delayed by emergency or adverse weather: the nature and duration of the delay).

(iv) A brief description of the spill location and the nature of the materials contaminated. This information should include whether the spill occurred in an outdoor electrical substation, other restricted access location, or in a nonrestricted access area.

(v) Precleanup sampling data used to establish the spill boundaries if required because of insufficient visible traces and a brief description of the sampling methodology used to establish the spill boundaries.

(vi) A brief description of the solid surfaces cleaned.

(vii) Approximate depth of soil excavation and the amount of soil removed.

(viii) Postcleanup verification sampling data and, if not otherwise apparent from the documentation, a brief description of the sampling methodology and analytical technique used.

(ix) While not required for compliance with this policy, information on the estimated cost of cleanup (by man-hours, dollars, or both) would be useful if maintained in the records.

§ 761.130 Sampling requirements.

Postcleanup sampling is required to verify the level of cleanup under § 761.125(c) (2) through (4). The responsible party may use any statistically valid, reproducible, sampling scheme (either random samples or grid samples) provided that the requirements of paragraphs (a) and (b) of this section are satisfied.

(a) The sampling area is the greater of (1) an area equal to the area cleaned

plus an additional 1-foot boundary, or (2) an area 20 percent larger than the original area of contamination.

(b) The sampling scheme must ensure 95 percent confidence against false positives.

(c) The number of samples must be sufficient to ensure that areas of contamination of a radius of 2 feet or more within the sampling area will be detected, except that the minimum number of samples is 3 and the maximum number of samples is 40.

(d) The sampling scheme must include calculation for expected variability due to analytical error.

(e) EPA recommends the use of a sampling scheme developed by the Midwest Research Institute (MRI) for use in EPA enforcement inspections: "Verification of PCB Spill Cleanup by Sampling and Analysis." Guidance for the use of this sampling scheme is available in the MRI report "Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup." Both the MRI sampling scheme and the guidance document are available from the TSCA Assistance Office, Environmental Protection Agency, Rm. E-543, 401 M St. SW., Washington, DC 20460 (202-554-1404). The major advantage of this sampling scheme is that it is designed to characterize the degree of contamination within the entire sampling area with a high degree of confidence while using fewer samples than any other grid or random sampling scheme. This sampling scheme also allows some sites to be characterized on the basis of composite samples.

(f) EPA may, at its discretion, take samples from any spill site. If EPA's sampling indicates that the remaining concentration level exceeds the required level, EPA will require further cleanup. For this purpose, the numerical level of cleanup required for spills cleaned in accordance with § 761.125(b) is deemed to be the equivalent of numerical cleanup requirements required for cleanups under § 761.125(c)(2) through (4). Using its best engineering judgment, EPA may sample a statistically valid random or grid sampling technique, or both. When using engineering judgment or random "grab" samples, EPA will take into account that there are limits on the power of a grab sample to dispute statistically based sampling of the type required of the responsible party. EPA headquarters will provide guidance to the EPA regions on the degree of certainty associated with various grab sample results.

§ 761.135 Effect of compliance with this policy and enforcement.

(a) Although a spill of material containing 50 ppm or greater PCBs is considered improper PCB disposal, this policy establishes requirements that EPA considers to be adequate cleanup of the spilled PCBs. Cleanup in accordance with this policy means compliance with the procedural as well as the numerical requirements of this policy. Compliance with this policy creates a presumption against both enforcement action for penalties and the need for further cleanup under TSCA. The Agency reserves the right, however, to initiate appropriate action to compel cleanup where, upon review of the records of cleanup or EPA sampling following cleanup, EPA finds that the decontamination levels in the policy have not been achieved. The Agency also reserves the right to seek penalties where the Agency believes that the responsible party has not made a good faith effort to comply with all provisions of this policy, such as prompt notification of EPA of a spill, recordkeeping, etc.

(b) EPA's exercise of enforcement discretion does not preclude enforcement action under other provisions of TSCA or any other Federal statute. This includes, even in cases where the numerical decontamination levels set forth in this policy have been met, civil or criminal action for penalties where EPA believes the spill to have been the result of gross negligence or knowing violation.

[FR Doc. 87-7262 Filed 4-1-87; 8:45 am]
BILLING CODE 6560-50-M

FELR

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

MAR 17 1987

REPLY TO ATTN OF: M/S AT 093

CERTIFIED MAIL

The Reverend Bernard Coughlin, President
Gonzaga University
E 502 Boone
Spokane, Washington 99258

Dear Father Coughlin:

On January 13, 1987, an inspection of Gonzaga University, located in Spokane, Washington was performed by Michael R. Hoyles of the United States Environmental Protection Agency (EPA) pursuant to Section 11 of the Toxic Substances Control Act (TSCA). This inspection was conducted to determine whether activities at the facility were in compliance with EPA regulations governing polychlorinated biphenyls (PCBs): 40 CFR Part 761.

A review of the results of that inspection has been completed. On the basis of this review, it appears that certain violations of EPA regulations occurred at the facility. They are as follows:

REGULATION - DISPOSAL

40 CFR 761.60(d) states that spills and other uncontrolled discharges of PCBs at concentrations of 50 ppm or greater constitute the disposal of PCBs. PCBs resulting from the cleanup and removal of spills, leaks, or other uncontrolled discharges, must be disposed of in accordance with 40 CFR 761.60(a). Disposal of PCBs in any other manner constitutes the improper disposal of PCBs.

VIOLATIONS ONE THROUGH SIX

The following PCB Transformers were leaking at the time of the inspection:

VIOLATION ONE:	Wagner Electric, serial number 5L11375.
VIOLATION TWO:	Wagner Electric, serial number 5L11374.
VIOLATION THREE:	Wagner Electric, serial number 5L11376.
VIOLATION FOUR:	Allis Chalmers, serial number 2680317.
VIOLATION FIVE:	Allis Chalmers, serial number 2680319.
VIOLATION SIX:	Allis Chalmers, serial number 2680318.

REGULATION - QUARTERLY INSPECTIONS

40 CFR 761.30(a)(xii) requires that owners of PCB Transformers in use or stored for reuse:

a) visually inspect each PCB Transformer at least once every three months;
b) record all leaks and initiate cleanup within 48 hours of a leak's being observed; and
c) maintain records of the inspections and servicing history.

The use of PCB Transformers, as outlined in 40 CFR Part 761, is allowed only if the persons using that equipment comply with these steps. A visual inspection is allowed annually if containment equaling 100% of the liquid volume in the transformer is present.

VIOLATIONS SEVEN THROUGH TWELVE

No quarterly inspections have been performed on the following PCB Transformers:

VIOLATION SEVEN:	Wagner Electric, serial number 5L11375.
VIOLATION EIGHT:	Wagner Electric, serial number 5L11374.
VIOLATION NINE:	Wagner Electric, serial number 5L11376.
VIOLATION TEN:	Allis Chalmers, serial number 2680317.
VIOLATION ELEVEN:	Allis Chalmers, serial number 2680319.
VIOLATION TWELVE:	Allis Chalmers, serial number 2680318.

REGULATION - REGISTRATION OF PCB TRANSFORMERS

40 CFR 761.30(a)(vi) states that as of December 1, 1985, all PCB Transformers (including PCB Transformers in storage for reuse) must be registered with fire response personnel with primary jurisdiction (that is, the fire department or fire brigade which would normally be called upon for the initial response to a fire involving the equipment). Information required to be provided to fire response personnel includes:

(a) The location of the PCB Transformer(s) (the address(es) of the building(s) and the physical location of the PCB Transformer(s) on the building site(s), and for outdoor PCB Transformer(s), the location of the outdoor substation).

(b) The principal constituent of the dielectric fluid in the transformer(s) (e.g., PCBs, mineral oil, or silicone oil).

(c) The name and telephone number of the person to contact in the event of a fire involving the equipment.

VIOLATIONS THIRTEEN THROUGH EIGHTEEN

The following PCB Transformers were not registered with the Spokane Fire Department:

VIOLATION THIRTEEN:	Wagner Electric, serial number 5L11375.
VIOLATION FOURTEEN:	Wagner Electric, serial number 5L11374.
VIOLATION FIFTEEN:	Wagner Electric, serial number 5L11376.
VIOLATION SIXTEEN:	Allis Chalmers, serial number 2680317.
VIOLATION SEVENTEEN:	Allis Chalmers, serial number 2680319.
VIOLATION EIGHTEEN:	Allis Chalmers, serial number 2680318.

REGULATION - MARKING

40 CFR 761.40(a)(2) requires that all PCB Transformers be marked in accordance with 40 CFR 761.45. Each mark must be placed in a position on the exterior of the PCB Item so that it can be easily read by any person inspecting or servicing the marked PCB Item.

REGULATION - MARKING

40 CFR 761.40(j) states that as of December 1, 1985, the vault door, machinery room door, fence, hallway, or means of access (other than grates and manhole covers) to a PCB Transformer must be marked with the PCB label. The mark must be placed so that it can be easily read by firemen fighting a fire involving this equipment.

VIOLATION NINETEEN

Neither the vault door leading to the following PCB Transformers, nor the PCB Transformers themselves, located in the Crosby Library, were marked with the required PCB label:

Wagner Electric, serial number 5L11375.
Wagner Electric, serial number 5L11374.
Wagner Electric, serial number 5L11376.

VIOLATION TWENTY

Neither the vault door leading to the following PCB Transformers, nor the PCB Transformers themselves, located in Madonna Hall, were marked with the required PCB label:

Allis Chalmers, serial number 2680317.
Allis Chalmers, serial number 2680319.
Allis Chalmers, serial number 2680318.

REGULATION - MARKING

40 CFR 761.40 requires that all PCB Containers be marked with the required PCB label.

VIOLATION TWENTY-ONE

There were three PCB Containers in the PCB storage for disposal area that were not marked with the required label. Two of the PCB Containers were five gallon cans containing used oil indicating the possibility of PCB content and dated 12/19/82. The third PCB Container was a five gallon can containing transformer oil for the x-ray machine. It must be assumed to contain PCBs unless chemical analysis shows otherwise.

REGULATION - STORAGE

40 CFR 761.65(b) requires that any facility used for the storage of PCBs and PCB Items designated for disposal have:

1) adequate walls and roof to prevent rainwater from reaching the stored PCBs and PCB Items;
2) adequate floor constructed of continuous smooth and impervious materials with a continuous curbing a minimum six inches high; and
3) no drain valves, floor drains and other openings that would permit liquids to flow from curbed area.

VIOLATION TWENTY-TWO

The PCB storage for disposal area, located in Saint Catherine Monica dormitory, did not meet the requirements for such storage areas. The curb was only four inches high, and there was a drain in the storage area. At the time of the inspection, there were at least three PCB Containers containing liquids assumed to contain PCBs, one PCB Container (70 gallon overpack containing cleanup material from two years ago), and one PCB-contaminated transformer.

REGULATION - STORAGE

40 CFR 761.65(c)(8) requires that PCB Articles and Containers be dated on the article or container when they are placed in storage.

VIOLATION TWENTY-THREE

None of the PCBs or PCB Items in storage for disposal at the Saint Catherine Monica dormitory were marked with the date they were placed into storage for disposal.

REGULATION - STORAGE

40 CFR 761.65(a) states that any PCB Article or PCB Container stored for disposal before January 1, 1983, shall be removed from storage and disposed of as required before January 1, 1984. Any PCB Article or PCB Container stored for disposal after January 1, 1983, shall be removed from storage and disposed of as required within one year of the date when it was first placed into storage.

VIOLATION TWENTY-FOUR

A PCB Container containing PCB cleanup material (70 gallon steel overpack drum) was not disposed of within one year of the date it was placed into storage for disposal. Two PCB Containers containing used oil, which had been in storage since December 12, 1982, and assumed to contain PCB between 50 and 499 parts per million were not disposed of by January 1, 1984.

REGULATION - RECORDS & MONITORING

40 CFR 761.180(a) requires that, beginning July 2, 1978, facilities using or storing at one time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB Container(s), or one or more PCB Transformers, or 50 or more PCB Large High or Low Voltage Capacitors, develop and maintain records on the disposition of the PCBs and PCB Items. The records shall form the basis of an annual document prepared by July 1, covering the previous calendar year. The annual document shall include:

1) a) The dates when PCBs and PCB Items are:
   i) removed from service,
   ii) placed into storage for disposal,
   iii) placed into transport for disposal;
   b) the quantities of PCBs and PCB Items removed from service including:
   i) total weight in kilograms of PCBs contained in PCB Containers, with the identification of content in the containers,
   ii) total number of PCB Transformers and total weight in kilograms of PCBs contained in the transformers,
   iii) total number of PCB Large High or Low Voltage Capacitors;
   c) the location of the initial disposal or storage facility for PCBs and PCB Items removed from service;
2) Total quantities of PCBs and PCB Items remaining in service at the end of the calendar year, including:
   a) total weight in kilograms of any PCBs and PCB Items in PCB Containers, with the identification of content in the containers,
   b) total number of PCB Transformers and total weight in kilograms of PCBs in the transformers,
   c) total number of PCB Large High or Low Voltage Capacitors.

VIOLATIONS TWENTY-FIVE THROUGH TWENTY-NINE

There were no PCB Annual Reports for the last five years (1981-1985).

We understand that Mr. Hoyles discussed some of these items with Kenneth R. Sammons, Assistant Director of University Services, so that these conditions could be immediately addressed. The Agency believes that these conditions constitute a threat to human health and the environment. For this reason, you should immediately take the following steps, if you have not already done so:

1. Initiate cleanup of all leaks from PCB Transformers within 48 hours of the discovery of such leaks, and dispose of all cleanup material according to 40 CFR 761.30(a)(x).

2. Perform quarterly inspections of all PCB Transformers and maintain records of such inspections, including all items listed in 40 CFR 761.30(a)(xii).

3. Register all PCB Transformers with the Spokane Fire Department.

4. Mark all PCB Transformers with the required PCB label.

5. Mark all vault doors, or other means of access to PCB Transformers, with the required PCB label.

6. Store all PCBs and PCB Items intended for disposal in an area complying with the requirements listed in 40 CFR 761.65(b).

7. Mark all PCBs and PCB Items stored for disposal with the date they were placed into storage for disposal. Dispose of all PCBs and PCB Items within one year of the date they were placed into storage for disposal.

8. Develop and maintain PCB Annual Reports, including all items prescribed in 40 CFR 761.180(a), and for all required prior years.

You should be advised that TSCA authorizes penalties of up to $25,000 per day for each violation. Criminal penalties are authorized for knowing and wilful violations of the law. Correcting the conditions noted in this letter may protect you from liability for future violations. However, it will not protect you from Agency enforcement action for those violations that have already occurred. Nothing in this letter should be construed to waive or limit any remedy available to EPA by virtue of conditions at your facility or the acts or omissions of your company. We are referring this case to EPA's Region 10 Office of Regional Counsel for possible enforcement action. In this regard, you will be receiving further correspondence from EPA.

Please understand that the aforementioned steps are being recommended to avoid risk to health and the environment. The university bears the ultimate responsibility for taking all steps necessary to comply with the law. If you have any questions regarding this letter, please contact William M. Hedgebeth of my staff. He can be reached at EPA Region 10, 1200 Sixth Avenue, M/S 524, Seattle, Washington 98101, telephone (206) 442-7369.

Sincerely,

Gil Haselberger, Chief
Toxic Substances Section

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: M/S AT 093

MAR 17 1987

MEMORANDUM

SUBJECT: TSCA Referral for Administrative Civil Penalty: Gonzaga University, Spokane, Washington

FROM: Gil Haselberger, Chief
Toxic Substances Section

TO: James Moore, Regional Counsel

THRU: Anita J. Frankel, Chief
Pesticides and Toxic Substances Branch

On January 13, 1987, an EPA inspection was performed by Michael R. Hoyles at Gonzaga University, Spokane, Washington. The inspection was carried out to determine compliance with the PCB Regulations adopted by EPA pursuant to the Toxic Substances Control Act (TSCA).

During the inspection, violations of the regulations were noted, as listed in the attached proposed civil complaint.

Compliance History

There has been no previous EPA TSCA (PCB) enforcement activity at this facility.

Request for Action

This assessment is being referred to you for consideration of enforcement action. An Administrative Civil Penalty appears to be in order because of the significance of the violations. Gonzaga University was notified of the current violations by certified letter dated MAR 17 1987. General problems noted at the time of the inspection by the inspector were discussed at the conclusion of the inspection with Kenneth R. Sammons, Assistant Director of University Services who accompanied Mr. Hoyles during the inspection. Following is a Civil Penalty Assessment for documented violations of TSCA.

I. Description of Current Alleged Violations

1-6.	Violation -	Disposal (leaking), 6 PCB Transformers, all 50 gallons or less
	Level -	One
	Extent -	Minor
	Penalty -	$30,000 [$5,000 X 6 violations]

7-12.	Violation -	Quarterly Inspections not performed, 6 PCB Transformers, all 50 gallons or less
	Level -	Two
	Extent -	Minor
	Penalty -	$18,000 [$3,000 X 6 violations]
13-18	Violation -	Non-registration of PCB Transformers with fire department, 6 PCB Transformers, all 50 gallons or less
	Level -	Two
	Extent -	Minor
	Penalty -	$18,000 [$3,000 X 6 violations]
19.	Violation -	Marking (vault area, 3 PCB Transformers in Crosby Library)
	Level -	Three
	Extent -	Minor
	Penalty -	$1,500
20.	Violation -	Marking (vault area, 3 PCB Transformers in Madonna Hall)
	Level -	Three
	Extent -	Minor
	Penalty -	$1,500
21.	Violation -	Marking, sfd area, three PCB Containers in PCB sfd area.
	Level -	Three
	Extent -	Minor
	Penalty -	$1,500
22.	Violation -	Improper storage for disposal, three PCB Containers, one PCB Container containing cleanup material, one PCB-contaminated transformer.
	Level -	Three
	Extent -	Minor
	Penalty -	$1,500
23.	Violation -	Storage (dating), all PCBs and PCB Items in storage for disposal (see Violation 22)
	Level -	Three
	Extent -	Minor
	Penalty -	0 [Same type violation, same location as Violation 22]
24.	Violation -	Storage (not disposed of by January 1, 1984), 1 PCB Container
	Level -	Three
	Extent -	Minor
	Penalty -	0 [same type of violation, same location as Violation 22]

25-29. Violation - No Annual Reports (1981-1985)
Level - Four
Extent - Significant
Penalty - $30,000 [$6,000 X 5 violations]

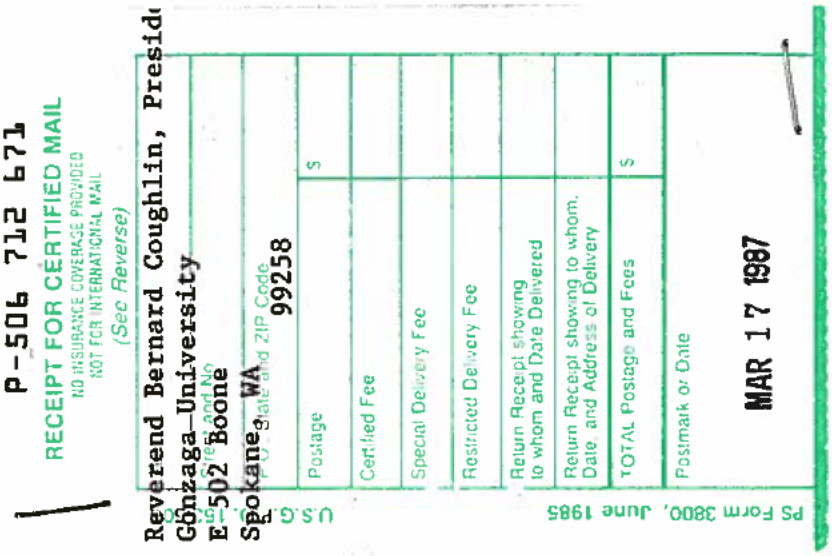
II. Initial Penalty Assessment

	Regulation	Requirement	Penalty Amount
1-6.	40 CFR 761.60(d)	Disposal (leaking)	$30,000
7-12.	40 CFR 761.30(a)(xii)	Quarterly Inspections	$18,000
13-18.	40 CFR 761.30(a)(vi)	Registration of PCB Transformers	$18,000
19.	40 CFR 761.40(a)(2)	Marking	$ 1,500
20.	40 CFR 761.40(a)(2)	Marking	$ 1,500
21.	40 CFR 761.40	Marking	$ 1,500
22.	40 CFR 761.65(b)	Storage for disposal	$ 1,500
23.	40 CFR 761.65(c)(8)	Storage (dating)	$ 0*
24.	40 CFR 761.65(a)	Storage (dispose of by January 1, 1984 or within one year)	$ 0*
25-29.	40 CFR 761.180(a)	Annual Reports (1981-1985)	$30,000
		TOTAL	$102,000

*Same type of violation, same location as Violation 22

The TSCA Case Reviewer assigned to this case is Bill Hedgebeth, 2-7369.

Attachment



Toxic Substances

CLARIFICATION OF USE OF ELECTRICAL TRANSFORMERS

EPA clarified several provisions of the EPA's regulations governing the use of electrical transformers containing polychlorinated biphenyls (PCBs). These clarifications/interpretations were requested by Mississippi Power Company in the context of settlement negotiations with EPA following a filing of a petition for review of the PCB Transformer Fires regulations published in the FEDERAL REGISTER of July 17, 1985.

The Agency issued a final rule in July 1985 amending the PCB Electrical Use Rule of August 1982. This PCB Transformer Fires Rule placed additional restrictions and conditions on the use of PCB Transformers, particularly PCB Transformers located in or near commercial buildings. After the promulgation of the PCB Transformer Fires Rule, Mississippi Power filed a petition for review of the rule. During settlement negotiations with EPA, Mississippi Power raised 10 questions seeking clarification. The following are these 10 questions and EPA's response.

Questions And EPA Responses

1. PCB Transformer Registration Requirements. Does the owner of a PCB Transformer have to register a PCB Transformer located within the interior of, on the roof of, or attached to the exterior wall of a building with all building owners within 30 meters of the transformer?

Answer: Transformers located within the interior of buildings are only required to be registered with the building owner where the transformer is located. PCB Transformers attached to buildings, including those on roof tops, must be registered with all building owners of buildings within 30 meters of the PCB Transformer.

2. For purposes of compliance with 40 CFR 761.30(a)(1)(vii), is it sufficient to register a PCB transformer with a building's property manager or managing agent in cases where determining the building owner of record would involve title searches, and with the building owner's association or managing agent when a condominium is involved?

Answer: Yes, registration of a PCB Transformer with the property manager, managing agent, or building owner's association under the circumstances described would be acceptable for compliance monitoring purposes. The principle objective of requiring building owner registration is to educate persons responsible for the operation of buildings. EPA did not assume that the costs involved in completing this registration would include conducting a title search. EPA believes that if persons responsible for operating buildings are aware that a fire in their building involves a PCB Transformer that it will be less likely for the building to be prematurely reopened for occupancy. Registration of PCB Transformers with a building's property manager or managing agent (in situations where the building owner is not readily identifiable) is acceptable and accomplishes the objective of the registration requirement.

Similarly, in the case of condominiums, EPA did not assume that a utility would be required to register a single transformer with hundreds if owners. Registration of PCB Transformers with the condominium owners association or managing agent is acceptable and accomplishes the objective of the registration requirement.

3. Removal of Stored Combustibles Requirement. Does the provision restricting the storage of combustibles within 5 meters of a PCB Transformer or an enclosure containing such a transformer (40 CFR 761.30(a)(1)(viii)) apply when the combustible materials are within 5 meters of the PCB Transformer or its enclosure but are separated from the PCB Transformer or its enclosure by a wall?

Answer: EPA has required that combustibles not be stored within 5 meters of an enclosure containing a PCB Transformer to prevent persons from simply moving stored combustibles from inside an enclosure to the other side of the enclosure. EPA believed that the moving of stored combustibles in this manner would do little to reduce the risk of the stored combustible starting a fire or feeding a fire involving a PCB Transformer. However, implicit in this manner was an assumption that the enclosure itself would not prevent a barrier to fire.

For PCB Transformer fires, EPA believes that under certain circumstances a wall could present an adequate barrier to fire. However, the wall must be constructed in a manner which would reduce the risk of stored combustibles starting a fire or feeding a fire involving a PCB Transformer. For example, a 2 to 3 hour fire-rated enclosure could reduce such a risk. If a wall presents a similar barrier to fire, the 5 meter rule would not apply.

4. Does the removal of stored combustibles requirement apply to bulk storage of fuel, such as gasoline, heating oil, and natural gas?

Answer: No. The Agency did not intend that the removal of stored combustibles requirement apply to bulk fuel storage. In some regions, local fire codes dictate that PCB equipment be used in such areas because of the risks of catastrophic explosions and fires in the event of a fire in the electrical equipment.

5. Requirement for the Reporting of Fire-Related Incidents. Does the requirement for the reporting of fire-related incidents apply to situations where PCBs have been spilled but no fire is present?

Answer: No. EPA recognizes that the term fire-related incident covers a broad spectrum of incident types. In defining "fire-related incident" broadly, EPA intended to have seemingly minor "fires" reported. This is because even following "minor" incidents, polychlorinated dibenzofurans (PCDFs) have been found, sometimes in areas remote from the transformer location. EPA does recognize, however, that small leaks and spills do occur and that these leaks and spills are not associated with electrical faults or transformer rupture. These are not fire-related incidents and are not required to be reported as such. Small releases (less than 1 gallon of PCBs) from pressure relief devices are also not considered to be fire-related incidents.

6. The Definition of Commercial Building. How many units must there be in a residence for it to be considered a "commercial" building?

Answer: The definition of "commercial" building includes residential properties (e.g., apartments, hotels, dormitories, condominiums). In promulgating the rule, EPA was concerned with residential properties where groups of people live and not really single family homes and the like. Thus, all residential properties (notwithstanding the number of units involved) are covered by the rule, except single family homes.

7. If a generating station or electrical substation has a few offices within the station, does this mean that the station is considered a "commercial" building?

Answer: No. PCB Transformers used in or near office buildings are operated in a fundamentally diffent manner from transformers used in or near industrial facilities and electrical substations. PCB Transformers used in or near commercial buildings are typically configured in a network fashion and are (currently) not typically equipped with special protective equipment such as current-limiting fuses or temperature/pressure sensors and disconnect equipment. The number of people potentially at risk of exposure is much higher in commercial buildings than in industrial facilities and electrical substations. EPA recognizes that industrial facilities and electrical substations may have a few offices on site used by workers responsible for monitoring plant/substation operations. The fact that an industrial facility or electrical substation may have a few such offices does not mean that the facility is considered a commercial building. However, if there is a building such as an office building, on the site which is dedicated to uses other than the direct monitoring of plant/substation operations, these office buildings are considered to be commercial buildings. In situations where a building is clearly used for dual purposes, i.e., a substantial number of floors or amount of square footage is dedicated to other than the manufacture or storage of products, then the location must be carefully evaluated relative to the following:

a. Is the PCB Transformer in or near the building located in an area where it is clearly visible to workers during the routine conduct of their work? Commercial transformers are more likely to be in areas such as basements and sidewalk/underground vaults rather than in easily visible locations.

b. Is there disconnect equipment on site which provides the capability to deenergize the transformers from the location and are there people present who have been trained in the procedures for deenergizing the transformer? Commercial transformers are less likely to be able to be deenergized from an on-site location, and it is less likely that trained personnel are around to provide for the deenergization.

c. Is access to the building restricted? Commercial buildings are typically readily accessible to both members of the general public and workers.

8. <u>The Status of Mineral Oil Transformers</u>. What is the regulatory status of a mineral oil transformer which is tested after the effective date of a phaseout requirement (or electrical protection requirement) and is found to contain over 500 ppm PCBs?

Answer: This issue is not unique to the PCB Transformer Fires Rule. For example, there is a PCB Transformer phaseout requirement in the August 25, 1982 PCB Electrical Equipment Rule for PCB Transformers (defined as transformers containing over 500 ppm PCBs) which pose an exposure risk to human food or animal feed. Since the regulations "allow" owners of mineral oil transformers which in reality may contain over 500 ppm PCBs to assume that these transformers are PCB contaminated, the discovery (after the effective date for phaseout or electrical protection) that a mineral oil transformer is a PCB Transformer does not (alone) mean that the transformer has been used in violation of the PCB regulations. But, once such a determination is made, efforts must be initiated immediately to bring the transformer into compliance in accordance with the following schedule:

a. Reporting of fire-related incidents: effective immediately after discovery.

b. Marking of the transformer: effective immediately after discovery.

c. Marking the vault door, machinery room door, fence, hallway or other means of access to the PCB Transformer: effective immediately after discovery.

d. Registering the PCB Transformer with fire response personnel with primary jurisdiction and with the building owner: Within 30 days of discovery.

e. Installation of electrical protective equipment on radial PCB Transformers and non-sidewalk vault, lower secondary voltage network transformers in or near commercial buildings: within 18 months of discovery or by October 1, 1990, whichever is later.

f. Removal of non-sidewalk vault, lower secondary voltage network transformers in or near commercial buildings if electrical protective equipment is not installed; within 18 months of discovery or by October 1, 1993, whichever is later.*

g. Removal of lower secondary voltage network PCB Transformers (located in sidewalk vaults) in or near commercial buildings: within 18 months of discovery or by October 1, 1993, whichever is later;*

h. Retrofill and reclassification of a radial PCB Transformer or a lower or higher secondary voltage network PCB Transformer (located in other than sidewalk vaults) in or near a commercial building; within 18 months or by October 1, 1990, whichever is later (this is an option in lieu of other requirements).

i. Retrofill and reclassification of a lower secondary voltage network PCB Transformer (located in sidewalk vaults) in or near a commercial building; within 18 months or by October 1, 1993, whichever is later.*

9. The Ban on the Installation of PCB Transformers. Does the prohibition on installation of PCB Transformers after October 1, 1985 apply to installation in emergency situations when an alternative transfomer is unavailable or where reclassification after retrofilling is involved?

Answer: The objective of the prohibition on the installation of PCB Transfomers after October 1, 1985, is to : (1)Stop the installation of PCB Transformers in newly constructed buildings, (2)stop the installation of PCB Transformers in locations where they are presently not being used, and (3)stop the installation of PCB Transformers to replace PCB Transformers which have failed.

However, in its assessment of the impact of item (3) above, EPA assumed that transformers other than PCB Transformers would be available for installation. EPA did not assume that one potential impact of the prohibition could be the denial of electrical service to utility customers following the failure of a transformer in the system. EPA perceives the problem of having only PCB Transformers available for installation to be a short-term problem. As soon as replacement transformers are available or retrofill and reclassification occurs, there will be no real possibility that compliance with this prohibition would result in denial of electric service to utility customers. EPA is in the process of issuing a proposed amendment to the October 1, 1985 prohibition to allow installation on an emergency basis until October 1, 1990, and the use of emergency installed PCB Transformers for one year from the date of installation or until October 1, 1990, whichever is earlier. An "emergency" would exist for purposes of this rule when no appropriate non-PCB or PCB contaminated transformer is available and there is not enough time to order new transformers or to retrofill the existing equipment and have it available for emergency use.

In addition, EPA recognizes the prohibition against installation of PCB Transformers may seriously impede the reclassification of many PCB Transformers. Therefore, EPA is in the process of issuing a proposed amendment to the October 1, 1985, prohibition to allow installation of retrofilled PCB Transformers after 1985 only for purposes of reclassification, as specified in 40 CFR 761.30(a)(2)(v).

10. The Labeling of PCB Transformer Locations. Are labeling systems devised prior to the rule adequate for compliance purposes?

Answer: The purpose of labeling the exterior of PCB Transformer locations is to provide emergency response personnel with warning that a PCB Transformer may be involved in a fire that they have been asked to extinguish. EPA required the use of one type of label to provide consistency and to facilitate compliance monitoring efforts. EPA required the use of the PCB identificaiton label because EPA assumed that most PCB Transformer owners had these labels already and would not have to make special purchases.

EPA does not want to unfairly penalize owners who have taken the initiative and have already labeled exterior locations. EPA, therefore, is in the process of issuing a proposed amendment to permit the continued use of an alternative label if several conditions have been met. These include initiation of the program before August 15, 1985; coordination prior to that time between the owner and the emergency response personnel affected; the appropriate emergency response personnel's recognition of what the alternative mark means; and the Regional Administrator has been provided with information that these conditions have been met.

*EPA is in the process of proposing an amendment to the PCB Transformer Fires Rule which would allow owners of lower secondary voltage network PCB Transformers (located in or near commercial buildings) an alternative to electrical protection by 1990. The alternative that EPA is considering proposing is removal of these transformers by October 1, 1993. Should EPA fail to promulgate this amendment, the operative date will be October 1, 1990.

ETHYLTOLUENES, TRIMETHYLBENZENES, AND THE C9 AROMATIC HYDROCARBON FRACTION

ROUTING AND TRANSMITTAL SLIP Date 2/28/87

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Bill Hedgebeth		
2.		
3.		
4.		
5.		

	Action		File		Note and Return
	Approval		For Clearance		Per Conversation
	As Requested		For Correction		Prepare Reply
	Circulate		For Your Information		See Me
	Comment		Investigate		Signature
	Coordination		Justify		

REMARKS

RECEIVED
MAR 03 1987
PESTICIDES & TOXIC SUBSTANCES BRANCH
EPA REGION 10

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
EPA, WASHINGTON OPERATIONS OFFICE c/o DEPARTMENT OF ECOLOGY OLYMPIA, WASHINGTON 98504	Phone No.

5041-102 ★U.S.GPO:1985-0-491-247/20036 OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

EPA

TOXIC SUBSTANCES CONTROL ACT

FOR 1/13/87 INSPECTION

TSCA INSPECTION CONFIDENTIALITY NOTICE

Form Approved
OMB No. 2070-0007
Expires 3-31-88

1. INVESTIGATION IDENTIFICATION			2. FIRM NAME
DATE 2/27/87	INSPECTOR NO. 3122	DAILY SEQ. NO.	GONZAGA UNIVERSITY
3. INSPECTOR NAME MICHAEL R HOYLES			4. FIRM ADDRESS E 502 BOONE SPOKANE, WA 99258
5. INSPECTOR ADDRESS EPA/WOO % ECOLOGY PV-11 OLYMPIA, WA 98504			6. CHIEF EXECUTIVE OFFICER NAME 7. TITLE

TO ASSERT A CONFIDENTIAL BUSINESS INFORMATION CLAIM

It is possible that EPA will receive public requests for release of the information obtained during inspection of the facility above. Such requests will be handled by EPA in accordance with provisions of the Freedom of Information Act (FOIA), 5 USC 552; EPA regulations issued thereunder, 40 CFR Part 2; and the Toxic Substances Control Act (TSCA), Section 14. EPA is required to make inspection data available in response to FOIA requests unless the Administrator of the Agency determines that the data contain information entitled to confidential treatment or may be withheld from release under other exceptions of FOIA.

Any or all the information collected by EPA during the inspection may be claimed confidential if it relates to trade secrets or commercial or financial matters that you consider to be confidential business information. If you assert a CBI claim, EPA will disclose the information only to the extent, and by means of the procedures set forth in the regulations (cited above) governing EPA's treatment of confidential business information. Among other things, the regulations require that EPA notify you in advance of publicly disclosing any information you have claimed as confidential business information.

A confidential business information (CBI) claim may be asserted at any time. You may assert a CBI claim prior to, during, or after the information is collected. The declaration form was developed by the Agency to assist you in asserting a CBI claim. If it is more convenient for you to assert a CBI claim on your own stationery or by marking the individual documents or samples "TSCA confidential business information," it is not necessary for you to use this form. The inspector will be glad to answer any questions you may have regarding the Agency's CBI procedures.

While you may claim any collected information or sample as confidential business information, such claims are unlikely to be upheld if they are challenged unless the information meets the following criteria:

1. Your company has taken measures to protect the confidentiality of the information, and it intends to continue to take such measures.
2. The information is not, and has not been, reasonably obtainable without your company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on showing of special need in a judicial or quasi-judicial proceeding).
3. The information is not publicly available elsewhere.
4. Disclosure of the information would cause substantial harm to your company's competitive position.

At the completion of the inspection, you will be given a receipt for all documents, samples, and other materials collected. At that time, you may make claims that some or all of the information is confidential business information.

If you are not authorized by your company to assert a CBI claim, this notice will be sent by certified mail, along with the receipt for documents, samples, and other materials to the Chief Executive Officer of your firm within 2 days of this date. The Chief Executive Officer must return a statement specifying any information which should receive confidential treatment.

The statement from the Chief Executive Officer should be addressed to:

and mailed by registered, return-receipt requested mail within 7 calendar days of receipt of this Notice. Claims may be made any time after the inspection, but inspection data will not be entered into the special security system for TSCA confidential business information until an official confidentiality claim is made. The data will be handled under the agency's routine security system unless and until a claim is made.

TO BE COMPLETED BY FACILITY OFFICIAL RECEIVING THIS NOTICE:		If there is no one on the premises of the facility who is authorized to make business confidentiality claims for the firm, a copy of this Notice and other inspection materials will be sent to the company's chief executive officer. If there is another company official who should also receive this information, please designate below.
I have received and read the notice		
SIGNATURE		NAME
NAME		TITLE
TITLE	DATE SIGNED	ADDRESS

US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

EPA TOXIC SUBSTANCES CONTROL ACT
INVESTIGATION SUMMARY

11. Facility Name: GONZAGA UNIVERSITY

1. INVESTIGATION IDENTIFICATION

Date	Inspector Number	Daily Sequence	2. Region/State
011387	3122	02	10

12. Street: E 502 BOONE

3. Inspecting Org.	4. Contract Number	5. Contract Work Order
C ☐ E ☒ S ☐		

6. Facility Function	7. Invest. Type	8. Reason for Investigation	13. City	14. State	15. ZIP Code
US	GPC	NSR	SPOKANE	WA	99258

9. Referral Agency	10. Warrant Required	16. DUNS Number	17. SIC Codes
	Yes ☐ No ☐	WAD079265732	

SAMPLE INFORMATION

18. Sample Sequence Number	19. State Sample Number	18. Sample Sequence Number	19. State Sample Number
20. CAS Number	21. Project Code	20. CAS Number	21. Project Code
22. Sample Medium	23. Date Collected	22. Sample Medium	23. Date Collected
24. Lot or Other Codes	25. Date Shipped	24. Lot or Other Codes	25. Date Shipped
26. Sample Identification		26. Sample Identification	
27. Amount Before Sampling		27. Amount Before Sampling	
28. Sample Description		28. Sample Description	

OTHER FACILITIES

29. Manufacturer/Processor *(Other than above)*			29. Manufacturer/Processor *(Other than above)*		
30. City	31. State	32. ZIP Code	30. City	31. State	32. ZIP Code
33. DUNS Number			33. DUNS Number		

RECORDS

34. Original Records		34. Original Records	
35. Sample Delivered To	36. Date	35. Sample Delivered To	36. Date
37. Remarks		37. Remarks	

INSPECTION DOCUMENTS

38. Credentials Presented	39. Notice of Inspection	40. Notice of Confidentiality	41. Chain of Custody	42. Receipt for Samples/ Documents	43. Declaration of Confidentiality
☒	☒	☒	☐	☐	☐

44. Inspector's Name	45. Inspector's Signature
Michael R. Hayles	

INSPECTION FILE

870113-3122-02 2/26/87 OK Folks

VIOLATION ASSESSMENT

William M. Hedgebeth/EPS
(Name & title of Evaluator)

2-12-87

TSCA	X	(PCB)
FIFRA		

GONZAGA UNIVERSITY
Spokane, Washington

ACTION TAKEN

	No Action Indicated
	Notice Noncompliance
X	Refer for Ad. Civil Penalty
	Refer for Criminal Penalty
	Refer to State

January 13, 1987
Date of Inspection

Michael R. Hoyles/WOO
Name of Inspector

Comments:

No previous EPA TSCA (PCB) enforcement activity at this facility.

Violations Noted During Current Inspection

DISPOSAL: The following PCB Transformers were leaking at the time of the inspection:

Wagner Electric, serial number 5L11375.
Wagner Electric, serial number 5L11374.
Wagner Electric, serial number 5L11376.
Allis Chalmers, serial number 2680317.
Allis Chalmers, serial number 2680319.
Allis Chalmers, serial number 2680318.

QUARTERLY INSPECTIONS: No quarterly inspections have been performed on the following PCB Transformers:

Wagner Electric, serial number 5L11375.
Wagner Electric, serial number 5L11374.
Wagner Electric, serial number 5L11376.
Allis Chalmers, serial number 2680317.
Allis Chalmers, serial number 2680319.
Allis Chalmers, serial number 2680318.

(Continued next page)

2/24/87

Concur

Do not Concur

FATES INSPECTION #

DATE ENTERED

CASE #

DATE ENTERED

REGISTRATION OF PCB TRANSFORMERS: The following PCB Transformers were not registered with the Spokane Fire Department:

Wagner Electric, serial number 5L11375.
Wagner Electric, serial number 5L11374.
Wagner Electric, serial number 5L11376.
Allis Chalmers, serial number 2680317.
Allis Chalmers, serial number 2680319.
Allis Chalmers, serial number 2680318.

MARKING: Neither the vault door leading to the following PCB Transformers, nor the PCB Transformers themselves, located in the Crosby Library, were marked with the required PCB label:

Wagner Electric, serial number 5L11375.
Wagner Electric, serial number 5L11374.
Wagner Electric, serial number 5L11376.

Neither the vault door leading to the following PCB Transformers, nor the PCB Transformers themselves, located in Madonna Hall, were marked with the required PCB label:

Allis Chalmers, serial number 2680317.
Allis Chalmers, serial number 2680319.
Allis Chalmers, serial number 2680318.

MARKING: There were three PCB Containers in the PCB storage for disposal area that were not marked with the required label. Two of the PCB Containers were five gallon cans containing used oil indicating the possibility of PCB content and dated 12/19/82. The third PCB Container was a five gallon can containing transformer oil for the x-ray machine. It must be assumed to contain PCBs unless chemical analysis shows otherwise.

STORAGE: The PCB storage for disposal area, located in Saint Catherine Monica dormitory, did not meet the requirements for such storage areas. The curb was only four inches high, and there was a drain in the storage area. At the time of the inspection, there were at least three PCB Containers containing liquids assumed to contain PCBs, one PCB Container (70 gallon overpack containing cleanup material from two years ago), and one PCB-contaminated transformer.

(continued next page)

STORAGE: None of the PCBs or PCB Items in storage for disposal at the Saint Catherine Monica dormitory were marked with the date they were placed into storage for disposal.

STORAGE: A PCB Container containing PCB cleanup material (70 gallon steel overpack drum) was not disposed of within one year of the date it was placed into storage for disposal. Two PCB Containers containing used oil and assumed to contain PCB between 50 and 499 parts per million were not disposed of by January 1, 1984.

RECORDS & MONITORING: There were no PCB Annual Reports for the years 1979 through 1985.

Recommend administrative civil penalty due to the gravity of the violations, overall general noncompliance with the PCB Regulations, and the potential for harm to human health and the environment.

RECORD OF COMMUNICATION	☒ PHONE CALL ☐ DISCUSSION ☐ FIELD TRIP ☐ CONFERENCE ☐ OTHER (SPECIFY) (Record of item checked above)	
TO: Bill Hedgebeth	FROM: Mike Hayles	DATE 2-23-87 TIME 9:40

SUBJECT
Gonzaga University

SUMMARY OF COMMUNICATION

Mike Hayles called to report concurrence on the draft letter to Gonzaga University regarding violations (TSCA-PCB) detected during January 13, 1987 EPA inspection.

CONCLUSIONS, ACTION TAKEN OR REQUIRED

INFORMATION COPIES
TO:

EPA Form 1300-6 (7-72) REPLACES EPA HQ FORM 5300-9 WHICH MAY BE USED UNTIL SUPPLY IS EXHAUSTED.

Gonzaga University
E 502 Boone
Spokane, Washington 99258

January 13, 1987

Michael R. Hoyles, Environmental Protection Specialist
Washington Operations Office

RECEIVED
JAN 28 1987
PESTICIDES & TOXIC
SUBSTANCES BRANCH
EPA REGION 10

Compliance History:

None.

Pre-Inspection Conference:

Toby Michelena (an Ecology inspector being trained) and I located Kenneth R. Sammons, Assistant Director University Services, at E 202 Boone Street. His office is located in a house concerted to offices adjacent to and west of the university next to a Knights of Columbus Hall. I presented my credentials and explained the purpose of the visit. I filled out a Notice of Inspection, had him sign it and gave him a copy.

According to Mr. Sammons they have six PCB transformers and one PCB contaminated transformer in use at the university. They utilize Transformer Consultants for transformer testing and Briggs Electric for clean up and service. They had no Annual Reports or quarterly inspection reports. They have not disposed of any PCBs. Approximately two years ago Briggs Electric cleaned up a PCB spill from six sample bottles that been stored with the transformers at Madonna Hall. According to Mr. Sammons all clean up material was placed in a barrel which was stored at the St. Catherine Monica dormitory. It is still there.

Some of the transformers at the University have been tested. If they have a number of units from the same manufacturer with similiar serial numbers they select one for testing. If the results are less than 50 PPM PCB they assume the whole series is likewise. If the results show greater than 50 PPM PCB then all the units in the series are tested.

According to Mr. Sammons, during Spokane City Fire Department inspections they point out the PCB transformers. That is the extent of registration with the Fire Department. The closest station is No. 2 although in the case of a major fire there will also be responded to by stations No. 1 and No. 3. The University owns the buildings, hence, registration with the building owner is assumed.

Record Review:

The only records were test results from Transformer Consultants and enclosed are copies of results for the six transformers and the one PCB contaminated transformer. The six transformers were not tested for PCBs because of the Askarel designation, according to Mr. Sammons.

In reviewing the three reports for the Wagner transformers, they have adjacent serial numbers, however, the reports indicates one is Askarel and the other two are oil. This was not verified during the inspection as to whether or not the reference to oil on two of the units is incorrect. The University, however, assumes all three Wagner transformers to be PCB transformers as verified by the note on each page, "Not tested per customer request".

The PCB contaminated unit (GE, 167 KVA) was tested to contain 378 PPM PCB. The date of the test was May 29, 1985.

Inspection of Facility:

We went to the Crosby Library which contained three Wagner transformers assumed by the University to be Askarel filled. They were contained in a vault with a locked door but no curbing. There were no drains in the vault. The vault was divided in half by a metal screen of sufficient structural integrity to prevent entry. Behind this screen was located the transformers. The door on the screen was locked. There was no ML label on this screen or the entrance to the vault. All three transfromers were leaking, two of which wetted a spot approximately three inches in diameter and the third wetted a spot approximately four inches wide and three feet long. There were no ML labels on the transformers. Also located within the screened area were two one gallon cans of unknown liquid (with a consistency of oil) and a five gallon can of unknown liquid. Photographs were taken.

We went to Madonna Hall which contains three Allis Chalmers transformers contained in a vault similiar to the one described above. Again there was no ML label on the screen entrance or the entrance to the vault. These transformers were surrounded by a curbed containement area approximately eight feet long and three feet wide with a seven inch high curb. All three of these units were leaking and it appeared that most of the liquid had run underneath the transformer. There were no ML labels on the transformers. The curb had a crack that would allow escape of liquid. There were no drains in the vault. Photographs were taken.

The PCB contaminated transformer is located in a subterranean vault adjacent to the student union building. There are three transformers located within this vault. The transformer in question was not leaking and the entrance to the vault had a four inch curb. Within the containment area there was a sump approximately three feet in diameter and four feet deep with a steel cover on it.

Finally, we went to a room in the Saint Catherine Monica dormitory which is being used as a storage for disposal site (SFD). There were no ML labels on the door and there was a drain. The curb at the door was only four inches high. Photographs were taken.

There was a 70 gallon steel "overpack" hazardous waste drum which, according to Mr. Sammons, contained clean up material from the Briggs Electric clean up two years ago as discussed above. There was an ML label on the top but no label on the side. The drum was not dated. There was also a GE 1.5 KVA transformer (S/N 6270642) with an indication of 295 PPM 1260 Aroclor. The transformer was not dated and there was no ML label, although there was an orange colored Transformer Consultant label. It was not leaking.

There were a number of cans stored there which contained used oil. There were two five gallon cans labeled "Used Oil-may contain PCB-Stored 12/19/82. There was a five gallon can dated 3/27/86 labeled "Emptied from two KVA transformers by North American Phillip". According to Mr. Sammons this was waste oil from the electron microscope and analyzed as non-PCB.

There was a five gallon can, which Mr. Sammon said contained transformer oil for the x-ray machine, no date or ML label (nor for that matter any reason to assume it contained PCBs). Finally, there were three one gallon cans each contained in a plastic bag with unknown contents.

Sample Collection:

None.

Closing Discussion:

I discussed my findings with Mr. Sammons pointing out the lack of Annual Reports and quarterly inspection reports and the fact that clean up of PCB leaks needed to be initiated within 48 hours of detection. Sometime during the inspection Mr. Sammons had said that the six units had been leaking since 1978. I discussed with him the need for a proper SFD site and the fact that complete disposal had to occur within a year. I thanked him for his time and we left the facility.

PCB INSPECTION PLAN

(Must be Completed and Filed with RSCC and RQAMO for all PCB Inspections)

STATUS: Enforcement Sensitive____;CBI____;Open____;Routine__X__

SITE IDENTIFIER:
Gonzaga University

AUTHORIZED INSPECTOR:
Michael R. Hoyles, Environmental Protection Specialist

DESIGNATED MANAGER:
Michael R. Hoyles, Environmental Protection Specialist

INSPECTION TEAM OR DELEGATED AUTHORITIES:
Michael R. Hoyles, Environmental Protection Specialist
Toby Michelena, Washington Department of Ecology Inspector

RQAMO CONCURRENCE:_____DATE_____

ESD PEER REVIEW:_____DATE_____

Project Number:_____Account Number_____

Laboratory Designated:_____EPA_____CLP_____PRIVATE

Sample Numbers Assigned: from_____to_____

SAMPLE SCHEDULE AND MILESTONES:

ACTIVITY/DATE:

1/13/87

Inspection **NO SAMPLES WERE TAKEN**
PHOTOGRAPHS WERE TAKEN

Regional Sample Control Center Review_____

Acceptance Date_____"open" section(s) closed on_____

Project Description and Site Location: Gonzaga University
E 502 Boone
Spokane, Washington 99258

Sample Rationale and Network Derivation: None

Cooperating Agencies, Involved Parties: None

Special Considerations or "open" requirements (Complete last 4 headings on reverse of this form)

U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

EPA

TOXIC SUBSTANCES CONTROL ACT

NOTICE OF INSPECTION

Form Approved
OMB No. 2070-0007
Expires 3-31-88

1. INVESTIGATION IDENTIFICATION			2. TIME	3. FIRM NAME
DATE	INSPECTOR NO.	DAILY SEQ. NO.		
1-13-87	3122		9:30	GONZAGA UNIVERSITY

4. INSPECTOR ADDRESS	5. FIRM ADDRESS
c/o Ecology PV-11 Olympia, WA 98504	E 502 BOONE SPOKANE, WA, 99258

REASON FOR INSPECTION

Under the authority of Section 11 of the Toxic Substances Control Act:

☒ For the purpose of inspecting (including taking samples, photographs, statements, and other inspection activities) an establishment, facility, or other premises in which chemical substances or mixtures or articles containing same are manufactured, processed or stored, or held before or after their distribution in commerce (including records, files, papers, processes, controls, and facilities) and any conveyance being used to transport chemical substances, mixtures, or articles containing same in connection with their distribution in commerce (including records, files, papers, processes, controls, and facilities) bearing on whether the requirements of the Act applicable to the chemical substances, mixtures, or articles within or associated with such premises or conveyance have been complied with.

☐ In addition, this inspection extends to *(Check appropriate blocks)*:

☐ A. Financial data

☐ B. Sales data

☐ C. Pricing data

☐ D. Personnel data

☐ E. Research data

The nature and extent of inspection of such data specified in A through E above is as follows:

INSPECTOR SIGNATURE		RECIPIENT SIGNATURE	
Michael R Hoyles		Kenneth R Sommers	
NAME		NAME	
Michael R Hoyles		asst. Director Univ. Services	
TITLE	DATE SIGNED	TITLE	DATE SIGNED
TSCA Coordinator	1-13-87	Gonzaga University	1/13/87

EPA Form 7740-3 (12-82)

INSPECTION FILE

SONZAGA

1-13-87

KEN SAMMONS -

HAVE PCB TRANSFORMERS
USE TRANSFORMER CONSULTANTS

- 6 ASKEREC
  MADONA HALL 3 37.5
  LOUSBY LIBRARY 3 - 50 KVA

~~[illegible]~~

- 1 PCB CONT - STUDENT UNION
  378 ppm

PLANS TO GIT RID OF THEM $22,000

one of three tested similar

---

2 yr ago BRIGGS ELEC CLEAN UP
[use them for service]
NO ANNUAL REPORTS
RANDOM INSPECTION
HAVEN'T DISPOSED OF PCBS

6 SAMPLE BOTTLES
PUT IN BARREL

HAVE TALKED W/ FIRE DEPT [SPOKANE CITY FIRE DEPT]
STAT 1,2 & 3
↑ closest

tolerance. In particular, EPA needs additional information in the areas of validation of the residue method to support claims for a more sensitive method, cold storage dissipation, and the nature of the residue (bound vs. free residue). EPA has discussed these deficiencies with the petitioners and has asked them to submit additional data. The generation and review of these data will take at least 9 months.

Since the health effect of concern is sulfite sensitivity, no additional animal toxicity data are required under 40 CFR 158.135 to support this petition, or the registration of sulfur dioxide pesticide products, including gas and sulfite-containing pads. If EPA receives information indicating health concerns other than sulfite sensitivity, a reevaluation of the toxicological data base for sulfites will be undertaken.

The absence of a tolerance for residues of sulfur dioxide on grapes poses an immediate problem for the Chilean table grape importers who have been treating grapes with sulfiting agents for over a decade. Without treatment with sulfiting agents, it may be difficult for most grape shipments from Chile to arrive at United States ports in acceptable condition. Chilean grapes represent 20 to 30 percent of the fresh table grapes consumed in the United States and supplement the California grape supply, providing a year-round supply of this commodity to the American consumer.

The Chilean exporters and the producers of sulfite-containing pads have submitted information to EPA since they filed their tolerance petition that they believe demonstrates that, at time of entry into the United States, sulfite-treated grapes will have residues of less than 10 ppm sulfur dioxide as determined by the modified Monier-Williams method. This is the official method of the Association of Official Analytical Chemists and is used by FDA for its enforcement procedures as set forth in 21 CFR 101.100(a)(4).

In order to alleviate risk concern about sulfite sensitive reactions, while permitting the shipment of sulfite-treated grapes into and within the United States, EPA in consultation with FDA has developed an approach incorporating the following measures:

1. Residues of sulfites (determined as sulfur dioxide) on grapes must be below the current level of detection, i.e., less than 10 ppm when the grapes are offered for entry into the United States or are otherwise introduced into interstate commerce.

2. The shipping containers of both foreign and domestic grapes must be provisions of the Federal Food, Drug, and Cosmetic Act section 403(l) which requires shipping containers to be labeled when a raw agricultural commodity has received post-harvest pesticide treatment.

3. EPA requires domestic and foreign shippers to have a certification program acceptable to FDA to assure that residue levels will be less than 10 ppm. In most circumstances, shipments must be accompanied by a valid certificate of analysis documenting that the grapes do not contain detectable levels of sulfur dioxide. FDA will monitor this program to assure compliance.

4. Any shipment found to have detectable levels of sulfur dioxide residues (10 ppm or higher) will be deemed to be adulterated and subject to seizure or detention by FDA.

5. Any shipment of sulfite-treated grapes not covered by a certification program will be deemed to be adulterated and subject to seizure or detention by FDA.

EPA is aware that there may be some risks to sulfite sensitive individuals from the presence of low levels of sulfites in grapes; however, EPA believes that the measures announced in this notice will minimize this risk. In establishing this policy, EPA has given consideration to the importance of a year-round supply of grapes, the economic impact which would result from a curtailment of grape shipments, the many years that sulfites have been used to treat grapes without evidence of adverse effects, and the fact that only a discrete segment of the population is sulfite sensitive. Therefore, EPA has concluded based on current information the benefits from the use of sulfiting agents on grapes outweigh any risk associated with their use.

This policy is an interim measure to permit shipment of sulfite-treated grapes for one year, and takes effect immediately. During this period EPA and FDA will work jointly to assure that the foreign and domestic grape shippers adhere to this policy. In addition, EPA will move quickly to consider the establishment of a permanent tolerance for sulfur dioxide in or on grapes and registration under section 3 of FIFRA of sulfite pesticide products for the 1988 season.

Dated: December 24, 1986.

Douglas D. Campt,

Director, Office of Pesticide Programs.

[FR Doc. 86-29489 Filed 12-30-86; 8:45 am]

BILLING CODE 6560-50-M

40 CFR Part 761

[OPTS-62036E; FRL-3136-4]

Polychlorinated Biphenyls; Clarification of Use of Electrical Transformers

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Interpretation of Tranformer Fire Regulations.

SUMMARY: This notice clarifies several provisions of the EPA's regulations governing the use of electrical transformers containing polychlorinated biphenyls (PCBs). These clarifications/interpretations were requested by Mississippi Power Company (hereafter, Mississippi Power) in the context of settlement negotiations with EPA following the filing of a petition for review of the PCB Transformer Fires regulations published in the Federal Register of July 17, 1985 (50 FR 29170).

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Environmental Protection Agency, Rm. E-543, 401 M St., SW., Washington, DC 20460, (202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Background

The Environmental Protection Agency issued a final rule, published in the Federal Register of July 17, 1985 (50 FR 29170), amending the PCB Electrical Use Rule, published in the Federal Register of August 25, 1982 (47 FR 37342). The July 17, 1985 rule (hereafter, the PCB Transformer Fires Rule) placed additional restrictions and conditions on the use of PCB Transformers, particularly PCB Transformers located in or near commercial buildings. After the promulgation of the PCB Transformer Fires Rule, Mississippi Power filed a petition for review of the rule. During settlement negotiations with EPA, Mississippi Power raised 10 questions seeking clarification of various provisions of the PCB Transformer Fires Rule. EPA agreed to provide answers to these 10 questions and to issue the 10 questions and the answers to these questions for publication in the Federal Register.

The 10 questions concern: (1) The PCB Transformer registration requirements; (2) the requirement for the removal of stored combustibles; (3) the requirement for the reporting of fire-related incidents to the National Response Center; (4) the definition of commercial building; (5) the status of mineral oil transformers which

are found to contain over 500 parts per million (ppm) PCBs; (6) the ban on the installation of PCB Transformers in or near commercial buildings; and (7) the requirement for the labeling of the exterior of PCB Tranformer locations.

II. Questions and EPA Responses

A. PCB Transformer Registration Requirements

1. *Statement of requirement.* 40 CFR 761.30(a)(1)(vii) requires that:

As of December 1, 1985, PCB Transformers in use in or near commercial buildings must be registered with building owners. For PCB Transformers located in commercial buildings, PCB Transformer owners must register the transformers with the building owner of record. For PCB Transformers located near commercial buildings, PCB Transformer owners must register the transformers with all owners of buildings located within 30 meters of the PCB Transformer(s). Information required to be provided to building owners by PCB Transformer owners includes, but is not limited to:

(A) The specific location of the PCB Transformer(s).

(B) The principal constituent of the dielectric fluid in the transformer(s) (e.g., PCBs, mineral oil, silicone oil).

(C) The type of transformer installaton (e.q., 208/120 volt network, 208/120 volt radial, 208 volt radial, 480 volt network, 480/277 volt network, 480 volt radial, 480/277 volt radial).

2. *Questions and answers regarding the registration requirement—Question 1.* Does the owner of a PCB Transformer have to register a PCB Transformer located within the interior of, on the roof of, or attached to the exterior wall of a building with all building owners within 30 meters of the transformer?

Answer. Transformers located within the interior of buildings are only required to be registered with the building owner where the transformer is located. PCB Transformers attached to buildings, including those on roof tops, must be registered with all building owners of buildings within 30 meters of the PCB Transformer.

Question 2. For purposes of compliance with 40 CFR 761.30 (a)(1)(vii), is it sufficient to register a PCB Transformer with a building's property manager or managing agent in cases where determining the building owner of record would involve title searches, and with the building owner's association or managing agent when a condominium is involved?

Answer. Yes, registration of a PCB Transformer with the property manager, managing agent, or building owner's association under the circumstances described would be acceptable for compliance monitoring purposes. The principle objective of requiring building owner registration is to educate persons responsible for the operation of buildings. EPA did not assume that the costs involved in completing this registration would include conducting a title search. EPA believes that if persons responsible for operating buildings are aware that a fire in their building involves a PCB Transformer that it will be less likely for the building to be prematurely reopened for occupancy. Registration of PCB Transformers with a building's property manager or managing agent (in situations where the building owner is not readily identifiable) is acceptable and accomplishes the objective of the registration requirement.

Similarly, in the case of condominiums, EPA did not assume that a utility would be required to register a single transformer with hundreds of owners. Registration of PCB Transformers with the condominium owners association or managing agent is acceptable and accomplishes the objective of the registration requirement.

B. Removal of Stored Combustibles Requirement

1. *Statement of requirement.* 40 CFR 761.30(a)(1)(viii) requires that:

As of December 1, 1985, combustible materials, including, but not limited to paints, solvents, plastics, paper, and sawn wood must not be stored within a PCB Transformer enclosure (i.e., in a transformer vault or in a partitioned area housing a transformer); within 5 meters of a transformer enclosure, or, if unenclosed (unpartitioned), within 5 meters of a PCB Transformer.

2. *Questions and answers regarding the removal of stored combustibles requirement—Question 3.* Does the provision restricting the storage of combustibles within 5 meters of a PCB Transformer or an enclosure containing such a transformer (40 CFR 761.30(a)(1)(viii)) apply when the combustible materials are within 5 meters of the PCB Transformer or its enclosure but are separated from the PCB Transformer or its enclosure by a wall?

Answer. EPA has required that combustibles not be stored within 5 meters of an enclosure containing a PCB Transformer to prevent persons from simply moving stored combustible from inside an enclosure to the other side of the enclosure. EPA believed that the moving of stored combustibles in this manner would do little to reduce the risk of the stored combustible sta ting a fire or feeding a fire involving a PCB Transformer. However, implicit in this was an assumption that the enclosure itself would not prevent a barrier to fire. For PCB Transformer fires, EPA believes that under certain circumstances a wall could present an adequate barrier to fire. However, the wall must be constructed in a manner which would reduce the risk of stored combustibles starting a fire or feeding a fire involving a PCB Transformer. For example, a 2 to 3 hour fire-rated enclosure could reduce such a risk. If a wall presents a similar barrier to fire, the 5 meter rule would not apply.

Question 4. Does the removal of stored combustibles requirement apply to bulk storage of fuel, such as gasoline, heating oil, and natural gas?

Answer. No. The Agency did not intend that the removal of stored combustibles requirement apply to bulk fuel storage. In some regions, local fire codes dictate that PCB equipment be used in such areas because of the risks of catastrophic explosions and fires in the event of a fire in the electrical equipment.

C. Requirement for the Reporting of Fire-Related Incidents

1. *Statement of requirement.* 40 CFR 761.30(a)(1)(xi) requires, among other things, that:

If a PCB Transformer is involved in a fire-related incident, the owner of the transformer must immediately report the incident to the National Response Center (toll-free 1-800-424-8802; in Washington, DC 202-426-2675). A fire-related incident is defined as any incident involving a PCB Transformer which involves the generation of sufficient heat and/or pressure (by any source) to result in the violent or non-violent rupture of a PCB Transformer and the release of PCBs. . . .

2. *Question and answer regarding the reporting requirement—Question 5.* Does the requirement for the reporting of fire-related incidents apply to situations where PCBs have been spilled but no fire is present?

Answer. No. EPA recognizes that the term fire-related incident covers a broad spectrum of incident types. In defining "fire-related incident" broadly, EPA intended to have been seemingly minor "fires" reported. This is because even following "minor" incidents, polychlorinated dibenzofurans (PCDFs) have been found, sometimes in areas remote from the transformer location. EPA does recognize, however, that small leaks and spills do occur and that these leaks and spills are not associated with electrical faults or transformer rupture. These are not fire-related incidents and are not required to be reported as such. Small releases (less than 1 gallon of PCBs) from pressure relief devices are

also not considered to be fire-related incidents.

D. The Definition of Commercial Building

1. *Statement of the definition.* In 40 CFR 761.3, "In or Near Commercial Buildings" is defined as:

. . . within the interior of, on the roof of, attached to the exterior wall of, in the parking area serving, or within 30 meters of a non-industrial, non-substation building. Commercial buildings are typically accessible to both members of the general public and employees, and include: (1) Public assembly properties, (2) educational properties, (3) institutional properties, (4) residential properties, (5) stores, (6) office buildings, and (7) transportation centers (e.g., airport terminal buildings, subway stations, bus stations, or train stations).

2. *Question and answer regarding the definition of commercial building—Question 6.* How many units must there be in a residence for it to be considered a "commercial" building?

Answer. The definition of "commercial" building includes residential properties (e.g., apartments, hotels, dormitories, condominiums). In promulgating the rule, EPA was concerned with residential properties where groups of people live and not really single family homes and the like. Thus, all residential properties (notwithstanding the number of units involved) are covered by the rule, except single family homes.

Question 7. If a generating station or electrical substation has a few offices within the station, does this mean that the station is considered a "commercial" building?

Answer. No. PCB Transformers used in or near office buildings are operated in a fundamentally different manner from transformers used in or near industrial facilities and electrical substations. PCB Transformers used in or near commercial buildings are typically configured in a network fashion and are (currently) not typically equipped with special protective equipment such as current-limiting fuses or temperature/pressure sensors and disconnect equipment. The number of people potentially at risk of exposure is much higher in commercial buildings than in industrial facilities and electrical substations. EPA recognizes that industrial facilities and electrical substations may have a few offices on site used by workers responsible for monitoring plant/substation operations. The fact that an industrial facility or electrical substation may have a few such offices does not mean that the facility is considered a commercial building. However, if there is a building, such as an office building, on the site which is dedicated to uses other than the direct monitoring of plant/substation operations, these office buildings are considered to be commercial buildings. In situations where a building is clearly used for dual purposes, i.e., a substantial number of floors or amount of square footage is dedicated to other than the manufacture or storage of products, then the location must be carefully evaluated relative to the following:

a. Is the PCB Transformer in or near the building located in an area where it is clearly visible to workers during the routine conduct of their work? Commercial transformers are more likely to be in areas such as basements and sidewalk/underground vaults rather than in easily visible locations.

b. Is there disconnect equipment on site which provides the capability to de-energize the transformers from the location and are there people present who have been trained in the procedures for deenergizing the transformer? Commercial transformers are less likely to be able to be de-energized from an on-site location, and it is less likely that trained personnel are around to provide for the de-energization.

c. Is access to the building restricted? Commercial buildings are typically readily accessible to both members of the general public and workers.

E. The Status of Mineral Oil Transformers

1. *Statement of the requirement.* Under "PCB-Contaminated Electrical Equipment" in 40 CFR 761.3, "Oil-filled electrical equipment other than circuit breakers, reclosers, and cable whose PCB concentration is unknown must be assumed to be PCB-Contaminated Electrical Equipment. . ." (PCB-Contaminated Electrical Equipment means equipment containing 50–500 parts per million (ppm) PCBs).

2. *Question and answer regarding the status of mineral oil transformers—Question 8.* What is the regulatory status of a mineral oil transformer which is tested after the effective date of a phaseout requirement (or electrical protection requirement) and is found to contain over 500 ppm PCBs?

Answer. This issue is not unique to the PCB Transformer Fires Rule. For example, there is a PCB Transformer phaseout requirement in the August 25, 1982 PCB Electrical Equipment Rule for PCB Transformers (defined as transformers containing over 500 ppm PCBs) which pose an exposure risk to human food or animal feed. Since the regulations "allow" owners of mineral oil transformers which in reality may contain over 500 ppm PCBs to assume that these transformers are PCB contaminated, the discovery (after the effective date for phaseout or electrical protection) that a mineral oil transformer is a PCB Transformer does not (alone) mean that the transformer has been used in violation of the PCB regulations. But, once such a determination is made, efforts must be initiated immediately to bring the transformer into compliance in accordance with the following schedule:

a. Reporting of fire-related incidents: effective immediately after discovery.

b. Marking of the transformer: effective immediately after discovery.

c. Marking the vault door, machinery room door, fence, hallway or other means of access to the PCB Transformer: effective immediately after discovery.

d. Registering the PCB Transformer with fire response personnel with primary jurisdiction and with the building owner: Within 30 days of discovery.

e. Installation of electrical protective equipment on radial PCB Transformers and non-sidewalk vault, lower secondary voltage network transformers in or near commercial buildings: within 18 months of discovery or by October 1, 1990, whichever is later.

f. Removal of non-sidewalk vault, lower secondary voltage network transformers in or near commercial buildings if electrical protective equipment is not installed: within 18 months of discovery or by October 1, 1993, whichever is later.[1]

g. Removal of lower secondary voltage network PCB Transformers (located in sidewalk vaults) in or near commercial buildings: within 18 months of discovery or by October 1, 1993, whichever is later; [1]

h. Retrofill and reclassification of a radial PCB Transformer or a lower or higher secondary voltage network PCB Transformer (located in other than sidewalk vaults) in or near a commercial building: within 18 months or by October 1, 1990, whichever is later (this is an option in lieu of other requirements).

i. Retrofill and reclassification of a lower secondary voltage network PCB

[1] EPA is in the process of proposing an amendment to the PCB Transformer Fires Rule which would allow owners of lower secondary voltage network PCB Transformers (located in or near commercial buildings) an alternative to electrical protection by 1990. The alternative that EPA is considering proposing is removal of these transformers by October 1, 1993. Should EPA fail to promulgate this amendment, the operative date will be October 1, 1990.

Transformer (located in sidewalk vaults) in or near a commercial building: within 18 months or by October 1, 1993, whichever is later.[1]

F. The Ban on the Installation of PCB Transformers

1. *Statement of the requirement.* 40 CFR 761.30(a)(1)(iii) provides that: "As of October 1, 1985, the installation of PCB Transformers (which have been placed into storage for reuse or which have been removed from another location) in or near commercial buildings is prohibited."

2. *Question and answer regarding the ban on installation of PCB Transformers—Question 9.* Does the prohibition on installation of PCB Transformers after October 1, 1985 apply to installation in emergency situations when an alternative transformer is unavailable or where reclassification after retrofilling is involved?

Answer. The objective of the prohibition on the installation of PCB Transformers after October 1, 1985, is to: (1) Stop the installation of PCB Transformers in newly constructed buildings, (2) stop the installation of PCB Transformers in locations where they are presently not being used, and (3) stop the installation of PCB Transformers to replace PCB Transformers which have failed. However, in its assessment of the impact of item (3) above, EPA assumed that transformers other than PCB Transformers would be available for installation. EPA did not assume that one potential impact of the prohibition could be the denial of electrical service to utility customers following the failure of a transformer in the system. EPA perceives the problem of having only PCB Transformers available for installation to be a short-term problem. As soon as replacement transformers are available or retrofill and reclassification occurs, there will be no real possibility that compliance with this prohibition would result in denial of electric service to utility customers. EPA is in the process of issuing a proposed amendment to the October 1, 1985, prohibition to allow installation on an emergency basis until October 1, 1990, and the use of emergency installed PCB Transformers for one year from the date of installation or until October 1, 1990, whichever is earlier. An "emergency" would exist for purposes of this rule when no appropriate non-PCB or PCB contaminated transformer is available and there is not enough time to order new transformers or to retrofill the existing equipment and have it available for emergency use.

In addition, EPA recognizes the prohibition against installation of PCB Transformers may seriously impede the reclassification of many PCB Transformers. Therefore, EPA is in the process of issuing a proposed amendment to the October 1, 1985, prohibition to allow installation of retrofilled PCB Transformers after 1985 only for purposes of reclassification, as specified in 40 CFR 761.30(a)(2)(v).

G. The Labeling of PCB Transformer Locations

1. *Statement of the requirement for the labeling of the exterior of PCB Transformer locations.*

40 CFR 761.40(j) requires that: "As of December 1, 1985, the vault door, machinery room door, fence, hallway, or means of access (other than grates and manhole covers) to a PCB Transformer must be marked with the mark M_L. The mark must be placed so that it can be easily read by firemen fighting a fire involving this equipment."

2. *Question and answer regarding the requirement for the labeling of PCB Transformer locations—Question 10.* Are labeling systems devised prior to the rule adequate for compliance purposes?

Answer. The purpose of labeling the exterior of PCB Transformer locations is to provide emergency response personnel with warning that a PCB Transformer may be involved in a fire that they have been asked to extinguish. EPA required the use of one type of label to provide consistency and to facilitate compliance monitoring efforts. EPA required the use of the PCB identification label because EPA assumed that most PCB Transformer owners had these labels already and would not have to make special purchases.

EPA does not want to unfairly penalize owners who have taken the initiative and have already labeled exterior locations. EPA, therefore, is in the process of issuing a proposed amendment to permit the continued use of an alternative label if several conditions have been met. These include initiation of the program before August 15, 1985; coordination prior to that time between the owner and the emergency response personnel affected; the appropriate emergency response personnel's recognition of what the alternative mark means; and the Regional Administrator has been provided with information that these conditions have been met.

III. Record to Support Clarifications/Interpretations

1. Official rulemaking record from "Polychlorinated Biphenyls in Electrical Transformers, Final Rule, published in the Federal Register of July 17, 1985 (50 FR 29170).

2. USEPA, OPTS, EED, Evaluation of the Suffiency of Current and Projected PCB Disposal Capacity To Meet Demand Requirements, July 10, 1986. Prepared under Contract #68-02-4235 by Putnam, Hayes & Bartlett, Inc.

3. Correspondence.

The record is available for review and copying in Room NEG009 of the EPA Headquarters at the address given above.

List of Subjects in 40 CFR Part 761

Hazardous substances, Labeling, Polychlorinated biphenyls, Recordkeeping and reporting requirements, Environmental protection.

Dated: December 23, 1986.

John A. Moore,

Assistant Administrator for Pesticides and Toxic Substances.

[FR Doc. 86-29355 Filed 12-30-86; 8:45 am]

BILLING CODE 6560-50-M

Smaller Colleges Are Now Subject to Stiff Hazardous-Waste Rules

By COLLEEN CORDES

WASHINGTON

Flammable solvents that the chemistry lab can't use any longer, pesticides left over from spraying the campus greens, and some old oil paints from art classes aren't just trash—they're hazardous wastes. And starting this week, many two-year and small four-year colleges will be required to follow more stringent federal regulations for storing and getting rid of them.

Most major research universities and large colleges have been required since 1980 to follow strict rules for disposing of their hazardous wastes, because they generally produce high volumes of them.

New rules issued by the Environmental Protection Agency apply to every institution that each month generates hazardous wastes in amounts of more than 100 kilograms per month—or half of a 55-gallon steel drum—and less than 1,000 kilograms per month, which would be about five drums. That's a range from about 220 to 2,200 pounds.

The status of individual institutions could change from month to month, depending on how much hazardous waste is generated in any one month. Experts say, however, that nearly all colleges probably produce at least that much dangerous trash.

The new regulations were published in the March 24 *Federal Register*.

The E.P.A. considers materials hazardous if they are toxic or corrosive, if they can catch fire at temperatures below 140 degrees Fahrenheit, or if they can create dangerous chemical reactions when mixed with water or other substances.

Until this week, colleges and other institutions that produced less than 1,000 kilograms in a month had to meet only a few requirements.

Had to Label Containers

They had to label containers with dangerous substances and dispose of them at a state-approved facility. And they could not store more than 1,000 kilograms of the wastes on their property. Those rules will remain in effect for colleges that generate less than 100 kilograms a month.

In the past, institutions that generated enough to fall in the middle range, between 100 and 1,000 kilograms, have also had to give their trash haulers a form that identified the wastes as being hazardous. Some states, however, have required institutions to follow stricter rules.

Now those colleges will also be required to register with state or federal officials that they are producers of hazardous wastes. They will have to keep on file records about the amounts and kinds of such wastes they generate, who transported it for them, and where it was finally disposed of. They will be held responsible for making sure that both the hauling services they use and the sites where their dangerous wastes end up have federal permits to handle hazardous material.

Just how much the new regulations will cost a college depends on how carefully it handled its wastes in the past. The cost also depends on the kinds and quantities of waste involved, and the kinds of container the chemicals have been stored in.

May Help if Colleges Are Sued

The average small college can expect to spend about $3,000 to $5,000 a year to get rid of its wastes under the new rules, said Russ Phifer, sales manager for Special Hazards Management Company of Pennsylvania, which specializes in laboratory wastes. He estimated that large universities spend $25,000 to $100,000 per year to have their wastes hauled away legally.

Despite the expense, said Sheldon E. Steinbach of the American Council on Education, the new requirements are reasonable and may actually represent a blessing in disguise. Colleges are increasingly concerned about the potential for lawsuits charging them with improperly disposing of wastes. Institutions that follow the regulations, however, will have the records to prove that they acted responsibly, he said.

That will not protect them from lawsuits related to dangerous trash dumped years ago. Under the so-called "Superfund" bill, which Congress may pass soon, when the government decides a hazardous-waste site needs emergency clean-up and some of the wastes can be traced back to campuses, the colleges involved could have to pay part of the cost of cleaning up the site.

Mr. Phifer said many smaller colleges actually produced enough waste to be covered by the stricter regulations in the past, but were not aware of their legal responsibilities until the recent publicity about the new regulations.

"What this is doing," he added, "is waking them up."

The Chemical Society has published brochures with tips on reducing hazardous wastes in labs and managing their disposal. For free single copies, send a self-addressed mailing label to Marilyn Charles at the American Chemical Society, 1155 16th Street, N.W., Washington, 20036. The E.P.A. also has a hotline for those seeking more information. The toll-free number is (800) 368-5888; in Virginia, it is (800) 468-4561.

In Federal Agencies

Biotechnology research. The Department of Agriculture has published a notice seeking comments on its proposed regulations for biotechnology research. The deadline to submit comments is September 26 (*Federal Register*, September 15, Page 32,677).

Student aid. The Department of Health and Human Services has proposed to amend regulations of the Nursing Student Loan program to include a definition of "exceptional financial need" in order to help determine eligibility for the program. Applicants en-

PART 761—[AMENDED]

1. The authority citation for Part 761 continues to read as follows:

Authority: 15 U.S.C. 2605, 2607, and 2611.

2. In § 761.80, by adding paragraphs (f)(4), (5), (6) and (7), (m)(5) and (6), and (o), (p), (q) and (r), and revising paragraphs (g) and (n) to read as follows:

§ 761.80 Manufacturing, processing, and distribution in commerce exemptions.

* * * * *

(f) * * *

(4) Midwest Research Institute, Kansas City, MO 64110 (ME-70.1).

(5) Pathfinder Laboratories, St. Louis, MO 63146 (A division of Sigma Aldridge Corporation, St. Louis, MO, 63178) (ME-76).

(6) Radian Corp., Austin, TX 78766 (ME-81.2).

(7) Wellington Sciences USA, College Station, TX 77840 (ME-104.1).

(g) The Administrator grants a class exemption to all processors and distributors of PCBs in small quantities for research and development provided that the following conditions are met:

(1) All processors and distributors must maintain records of their PCB activities for a period of 5 years.

(2) Any person or company which expects to process or distribute in commerce 100 grams (.22 lb) or more PCBs in 1 year must report to EPA identifying the sites of PCB activities and the quantity of PCBs to be processed or distributed in commerce.

* * * * *

(m) * * *

(5) Supelco, Inc., Bellefonte, PA 16823-0048 (PDE-41.2).

(6) Radian Corp., Austin, TX 78766 (PDE-152.1).

(n) The 1-year exemption granted to petitioners in paragraphs (f), (g), and (m) of this section shall be renewed automatically unless a petitioner notifies EPA of any increase in the amount of PCBs to be manufactured, imported, or exported or any change in the manner of manufacture, import, or export of PCBs. EPA will consider the submission of such information to be a renewed petition for exemption. EPA will evaluate the information in the renewed exemption petition, issue a proposed rule for public comment, and issue either a final rule granting the exemption or a notice denying the exemption. Until EPA acts on the petition, the petitioner will be allowed to continue the activities for which it requests exemption.

(o) The 1-year class exemption granted to all processors and distributors of PCBs in small quantities for research and development in paragraph (g) of this section shall be renewed automatically unless information is submitted affecting EPA's conclusion that the class exemption, or the activities of any individual or company included in the exemption, will not pose an unreasonable risk of injury to health or the environment. EPA will evaluate the information, issue a proposed rule for public comment, and issue a final rule affecting the class exemption or individuals or companies included in the class exemption. Until EPA issues a final rule, individuals and companies included in the class exemption will be allowed to continue processing and distributing PCBs in small quantities for research and development.

(p) The Administrator grants the following petitioners an exemption for 1 year to import inadvertently generated PCBs at concentrations above those specified for "excluded manufacturing processes" at § 761.3:

(1) American Hoechst Corp., Somerville, NJ 08876 (ME-5).

(i) The exemption is limited to the pigment specified in the American Hoechst petition.

(ii) [Reserved]

(2) [Reserved]

(q) The Administrator grants the following petitioners, and their customers, an exemption for 1 year to process and distribute in commerce inadvertently generated PCBs at concentration above those specified for "excluded manufacturing processes" at § 761.3 provided that the conditions for each exemption are met:

(1) Aluminum Company of America, Pittsburgh, PA 15219 (PDE-13).

(i) The exemption is limited to the sale of 1,116,225 lbs of aluminum chloride for use in the production of pigments.

(ii) The Agency must be notified 30 days prior to delivery if the aluminum chloride is to be sold to a company other than Kemira, Incorporated of Savannah, Georgia.

(2) American Hoechst Corp., Somerville, NJ 08876 (PDE-13).

(i) The petitioner must notify customers that the product may contain PCBs over the 50 ppm maximum concentration level for inadvertently generated PCBs.

(ii) The exemption is limited to the pigment specified in the American Hoechst petition.

(3) Dainichiseika Color & Chemicals America, Inc., Clifton, NJ 07012 (PDE-58).

(i) The petitioners must notify customers that the product contains PCBs over the 50 ppm maximum concentration level for inadvertently generated PCBs.

(ii) The exemption is limited to the 82,400 lbs of phthalocyanine blue crude in Dainichiseika's inventory.

(r) The Administrator grants the following petitioners a 1-year exemption to distribute in commerce heat transfer and hydraulic systems containing less than 50 ppm PCBs, provided that the systems are drained prior to distribution in commerce.

(1) Aluminum Company of America, Pittsburgh, PA 15219.

(2) [Reserved]

[FR Doc. 86-17884 Filed 8-7-86; 8:45 am]

BILLING CODE 6560-50-M

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Health Care Financing Administration

42 CFR Part 417

[BERC-247-F]

Medicare Program; Payment to Health Maintenance Organizations and Competitive Medical Plans

AGENCY: Health Care Financing Administration (HCFA), HHS.

ACTION: Final rule.

SUMMARY: This final rule makes several changes to the regulations that implement legislation regarding Medicare reimbursement for health care services provided by eligible health maintenance organizations and competitive medical plans. The changes involve rules governing supervision of clinical psychologists, continuing membership for non-residents, and administration of the benefit stabilization fund. We are also responding to the comments we received on the final rule with comment period published on January 10, 1985 (50 FR 1314).

EFFECTIVE DATE: These regulations are effective on September 8, 1986.

FOR FURTHER INFORMATION CONTACT:
Frank Emerson (Reimbursement), (301) 597-1807.
Rita McGrath (Coverage), (301) 594-6558.

SUPPLEMENTARY INFORMATION:

I. Background

On May 25, 1984, we published a proposed rule in the Federal Register (49 FR 22198) concerning Medicare payments to health maintenance organizations (HMOs) and competitive medical plans (CMPs). In that rule, we

National Safety Council

Campus Safety Newsletter

SPRING 1986

How Much Do You Know About PCBs on Your Campus?

Wait! Before you thumb past this article thinking it's yet another rehash of how polychlorinated biphenyls (PCBs) endanger the environment, take a moment and continue reading. What it is about is how failure to implement a program to monitor PCBs on your campus can cost your school a bundle of money and endanger your job security. Now doesn't that grab your attention?

Did you know that whether your institution is large or small, public or private, north or south, there is an agency empowered by law to examine your practices and fine you for shortcomings—up to $25,000 per day per violation? The agency is the Environmental Protection Agency (EPA) and the law is the Toxic Substances Control Act of 1978 (TSCA).

At St. Mary's University we found out the hard way that all this is true. What concerns me is that in conversations with other physical plant directors since our experience, nearly everyone I've talked to seems to be as innocently ignorant as I was before April 1984. Hence, this article.

In April 1984 I attended a seminar at Texas A & M University conducted by representatives from Region VI of the EPA. At the seminar I began to learn the magnitude of responsibility placed by the TSCA on any firm or institution that uses electrical equipment containing PCB. At St. Mary's our involvement consisted of high-voltage transformers and capacitors, but at that time we didn't know the extent, if any, of our involvement. Do you know how many pieces of PCB equipment are on your campus and where they are?

PCB equipment must be (a) frequently inspected and the inspections well-documented, (b) disposed of altogether under certain circumstances, and (c) disposed of under carefully prescribed conditions, and are subject to myriad rules regarding handling and maintenance. Having learned this, we set about to determine if we had any PCBs on our campus. We inventoried from fence to fence and identified every transformer and capacitor by manufacturer, serial number, and everything else we could learn from the manufacturer's data plate. We also took samples of dielectric fluid (transformer oil) for laboratory analysis to

Continues on next page

EPA Adds New Restrictions on PCB Transformers

EPA has signed into effect additional restrictions and conditions regarding the use of PCB transformers. These requirements are intended to reduce the fire-related risks associated with this type of transformer. The final rule includes the following provisions:

1) High secondary voltage PCB transformers configured in a network fashion and used in or near commercial buildings must be removed from use, placed into storage, disposed of, or reclassified to PCB-contaminated or non-PCB status by October 1, 1990.

2) PCB transformers cannot be installed in commercial buildings after October 1, 1990.

3) PCB transformers used in or near commercial buildings must be equipped with enhanced electrical protection systems by October 1, 1990.

4) All transformers must be registered with appropriate emergency response personnel and with building owners by December 1, 1985.

5) All PCB transformer locations must be cleared of stored combustible materials by December 1, 1985.

6) All PCB transformer fire-related incidents must be reported immediately to the National Response Center, and measures must be taken to contain releases of PCBs and combustion products.

EPA defines commercial buildings to include office buildings, shopping centers, hospitals and colleges—all types of buildings other than industrial facilities. PCBs located in or near a commercial building are those located on the roof of, attached to the exterior wall of, in the parking area of, or within 30 meters of a commercial building.

For further information, contact the TSCA Assistance Office, Office of Toxic Substances, EPA, Room E-543, 401 M St.SW, Washington, DC 20460; toll free (800) 424-9065.

—APPA Newsletter
December 1985

444 North Michigan Avenue
Chicago, Illinois 60611
312-527-4800

PCBs

Continued from previous page

determine its PCB content. The only proof the EPA will accept that an oil has no PCB in it is a laboratory test report from an approved lab.

We proceeded with our survey and the development of a PCB control program, if we found we needed one, in a deliberate and orderly fashion using university personnel. They worked on the project when not occupied with higher priority work. The alternative was to hire a consultant to come build our program and hand it off to us for implementation. Fortunately, my boss concurred in the slower in-house approach, but unfortunately, we had barely started when the EPA inspector showed up. In July 1984 our campus was inspected by Region VI of the EPA for compliance with the TSCA. Before the inspection I apprised the EPA representative of our recent familiarization with the law, outlined our get-well program, and showed our progress to date. Our good intentions were acknowledged but helped us not a bit. The inspector pointed out several deficiencies, recorded his observations, made some helpful comments, and left. He gave no hint as to the severity of our problems or the likely penalty that might ensue.

We didn't hear from the EPA again until late October 1984 when our president received, by registered mail, a complaint against the university in which a civil penalty of $31,500 was proposed for violation of the TSCA requirements covering inspection, storage, maintenance and recordkeeping. Two specifics were cited for each of the three counts. The complaint document also advised us of our response options: (a) a hearing before a federal judge to argue the case, or (b) a settlement conference with the EPA to discuss a mutually agreeable solution.

The settlement conference occurs out of court but both sides are represented by counsel. Most universities found deficient by the EPA have elected the negotiated settlement, and so did we.

In the 90 days between the inspection and filing of the complaint we had pressed on with our get-well program. We had received lab analyses that identified the equipment subject to the TSCA rules, had removed from service the transformer cited by the EPA inspector for improper maintenance, and had opened negotiations with an approved disposal agent to remove from the campus all PCB equipment not actually in service. This included six serviceable transformers, one burned-out transformer, and two burned-out capacitors. We had also developed the documentation for the PCB control program and had performed the first round of required inspections.

At the settlement conference we presented documented evidence of all the above actions, stressed that we were a small private university without generous endowments, professed our intent to follow through with the corrective measures in progress, and requested that the penalty be waived. We pointed out that our violations were purely procedural and that at no time before or since the inspection had conditions on the

Continues on next page

PCBs

Continued from previous page

campus posed a hazard to the environment. Our arguments fell on deaf ears. The EPA representative and attorney stated that they could, as part of a "settlement with conditions," reduce the penalty amount but could not waive it. They wouldn't commit to any reduced figure during the conference, but directed us to send them copies of any invoices paid in support of our PCB get-well program.

We certified to the EPA expenditures of just over $20,000 as the cost of replacing and disposing of PCB equipment. This does not include any legal fees, travel expenses, or staff hours associated with the civil complaint. The final order, issued by the EPA in late May 1985, states that the following conditions will be met regarding the civil penalty:

- The university shall dispose of all PCB transformers and capacitors not in use, utilizing EPA-approved methods. (This had already been done.)
- The university shall remove from service and properly dispose of the one PCB capacitor remaining in use. (This had also been done.)
- The university shall develop and fully implement a plan for handling, maintaining, and disposing of PCBs and PCB items. (The plan has been developed and has been approved by the EPA.)
- The university shall pay a civil penalty of $4,000. (We've paid.)

Our experience with PCB, EPA and TSCA has made me a bit of a zealot on the subject. I talk it up every time I'm near other plant directors. Yet I get an alarming number of polite ho-hums, often from people who admit they don't know if they have PCB equipment on their campus. In my judgment every plant director should find that out. If you have PCB equipment, get smart about the TSCA requirements by reading:

- Federal Register, Vol. 44, No. 106, Thursday, May 31, 1979, 40CFR Part 761
- Federal Register, Vol. 47, No. 165, Wednesday, August 25, 1982, 40CFR Part 761
- Federal Register, Vol. 50, No. 137, Wednesday, July 17, 1985, p. 29170.

—Charles W. Jenkins
Director, Physical Plant
St. Mary's University
San Antonio, Texas

The University of Puget Sound

Ray Bell
Financial Vice President

RECEIVED
MAR - 7 1986
VICE PRESIDENT
BUSINESS ~~AND FINANCE~~

March 3, 1986

Chief Financial Officer

RE: Dangers of PCB's and the Environmental Protection Agency

Dear Sir or Madam:

This letter is being written so that you as chief financial officer can avoid a recent experience of the University of Puget Sound. Colleges and universities are being inspected by the EPA, and it recently conducted an audit of this University's facilities examining compliance with certain federal regulations dealing with PCB's (polychlorinated biphenyls). Certain areas of noncompliance were cited, a fine was levied, and certain actions were required to be taken by the University to offset the fine. This letter is one of those actions.

PCB's are considered to be extremely hazardous to human health. The danger lies in that the chemical is extremely stable, bioaccumulates, and bioconcentrates in organisms. PCB's cause cancer in animals and are a possible human carcinogen. Exposure to PCB's can cause chloracne (a painful disfiguring skin illness), nausea, dizziness, eye irritation and bronchitis. Ingestion of PCB's can cause liver damage and digestive problems.

Amended rules have been promulgated by the EPA under the authority of Section 6(e) of the Toxic Substance Control Act (TSCA).

The rules prohibit the manufacture, processing and distribution of PCB material. In addition, the rules authorize specific, limited uses of PCB, primarily uses relating to electrical equipment--transformers and capacitors. These permissable "use" sections describe the location of the PCB-containing equipment in restricted-access areas, the marking and inspections which are in certain instances required. These rules regarding uses are further divided into areas relating to the potential risks of contamination of food or feed and into areas depending upon the concentration of PCB within the equipment--50-500 ppm; 500 ppm.

High risk equipment due to location or concentration is subject to inspections and must also have accompanying maintenance records indicating dates of inspection, notation of leaks, if any, and cleanup procedures.

The rules also provide for methods and restrictions regarding storage and disposal of PCB-containing material.

There are also complementary OSHA regulations which monitor the workplace and provide safety precautions to be followed to prevent exposure in case of leaks or spills.

These rules and regulations do apply to educational institutions. Within these institutions there exists a risk of exposure to the public if the equipment is not carefully monitored. Consequently, compliance with these rules is strictly enforced; the penalties for violations are substantial. It is suggested, therefore, that preventative programs--procedures complying with the rules--be instituted if you have not already done so, as the programs in the long run will be advantageous, both economically and health-wise, to your institution and its members.

The enclosed materials require coordination among a number of divisions in your university, and you may wish to initiate the contacts needed for an effective program.

I hope this letter and EPA's materials will help you avoid what we experienced. Although our fine was not substantial, the fines experienced by other organizations have been. The more prudent course is to assure that your college or university adopts procedures to assure compliance with the statute and rules implemented by EPA.

Sincerely,

Ray Bell

Ray Bell
Financial Vice President

js

Enclosures

The University of Puget Sound

Ray Bell
Financial Vice President

RECEIVED
MAR - 7 1986
VICE PRESIDENT
BUSINESS ~~AND FINANCE~~

March 3, 1986

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I hope this letter and EPA's materials will help you avoid what we experienced. Although our fine was not substantial, the fines experienced by other organizations have been. The more prudent course is to assure that your college or university adopts procedures to assure compliance with the statute and rules implemented by EPA.

Sincerely,

Ray Bell

Ray Bell
Financial Vice President

js

Enclosures

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

CUST GONZAGA UNIVERSITY | CITY SPOKANE WA | ID # 17260000 | DATE PRINTED 6/13/85
SUB. NAME CROSBY LIBRARY | UNIT # | OTHER | LOCATION INDOOR /

NAMEPLATE DATA

MFG	WAGNER ELECTRIC	EQUIP. TYPE	TRANSFORMER
DATE MFG		TRANS CLASS	
S/N	5111375	IMPEDENCE	2.30%
KVA	50	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	ASKAREL
SEC	120	GAL LIQUID	32

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	
TOP FPV		POWER V/A	
BOTTOM FPV		OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION | LEAKS

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT

COLOR LABEL | CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP. GR.	VISUAL	SEDIMENT
3/00/78		LOW	45 C		.020 AC	N/A	41 AC	PALE YELO AC	1.540 AC	CLEAR AC	NONE AC
5/29/85	********	NOT TESTED PER CUSTOMER REQUEST									

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

* THIS TEST IS AN INVALUABLE TOOL USED TO EVALUATE THE OPERATION OF IN-SERVICE AND

* SERVICE-AGED TRANSFORMERS FOR MAX-LIFE RESULTS.

KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

CUST GONZAGA UNIVERSITY | CITY SPOKANE WA | ID # 17260000 | DATE PRINTED 6/13/85
SUB. NAME LIBRARY | UNIT # | OTHER | LOCATION INDOOR /

NAMEPLATE DATA

MFG	WAGNER	EQUIP. TYPE	TRANSFORMER
DATE MFG		TRANS CLASS	
S/N	5211374	IMPEDENCE	2.30%
KVA	50	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	OIL
SEC	120	GAL LIQUID	32

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	
TOP FPV	.50 INCH	POWER V/A	
BOTTOM FPV	.50 INCH	OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION | LEAKS

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT

COLOR LABEL | CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP. GR.	VISUAL	SEDIMENT
9/00/78	********	NOT TESTED -UNABLE TO OBTAIN SAMPLE									
5/29/85	********	NOT TESTED PER CUSTOMER REQUEST									

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

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KEY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

[illegible] HOWRY AVENUE, SUITE [illegible], FREMONT, CA [illegible]

CUST.	LONZAGA UNIVERSITY	CITY	SPOKANE WA	ID #	17260000
SUB. NAME	LIBRARY MIDDLE UNIT	UNIT #		OTHER	
LOCATION	OUTDOOR/	DATE PRINTED	6/13/85		

NAMEPLATE DATA

MFG.	WAGNER	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	5L11376	IMPEDENCE	2.30%
KVA	50	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	OIL
SEC	120	GAL LIQUID	32

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H2O COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	
TOP FPV	.50 INCH	POWER V/A	
BOTTOM FPV	.50 INCH	OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION LEAKS

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT

COLOR LABEL CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP. GR.	VISUAL	SEDIMENT
9/00/78			48 C		.015 AC	N/A AC	39 AC	PALE YELO UN		CLEAR AC	NONE AC
5/29/85	********	NOT TESTED PER CUSTOMER REQUEST									

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

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* SERVICE-AGED TRANSFORMERS FOR MAX-LIFE RESULTS.

EY TO ABBREVIATIONS: AC — ACCEPTABLE QU — QUESTIONABLE UN — UNACCEPTABLE

TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

CUST GONZAGA UNIVERSITY | CITY SPOKANE WA | ID # 17260000 | DATE PRINTED 6/13/85
SUB. NAME MADONNA SUB | UNIT # | OTHER | LOCATION INDOOR /

NAMEPLATE DATA

MFG.	AC	EQUIP. TYPE	TRANSFORMER
DATE MFG		TRANS CLASS	
S/N	2600317	IMPEDENCE	2.90%
KVA	37	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	ASKAREL
SEC	120	GAL LIQUID	50

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H2O COOLED	NO	BUSHING LOC	
OIL PUMPS	NO	RECLAIMER	
TOP FPV		POWER V/A	
BOTTOM FPV		OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION | LEAKS

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT

COLOR LABEL | CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP GR.	VISUAL	SEDIMENT
3/00/78					.020 AC	N/A	38 AC	PALC YELO AC	1.540 AC	CLEAR AC	NONE AC
5/29/85	********	NOT TESTED PER CUSTOMER REQUEST									

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

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TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

[illegible] MOWRY AVENUE, SUITE [illegible], FREMONT, CA [illegible]

CUST CONZAGA UNIVERSITY | CITY SPOKANE WA | ID # 17260000 | DATE PRINTED 6/13/85
SUB. NAME MADONNA HALL | UNIT # MIDDLE UNIT | OTHER | LOCATION INDOOR /

NAMEPLATE DATA

MFG.	AC	EQUIP. TYPE	TRANSFORMER
DATE MFG.		TRANS CLASS	
S/N	2680319	IMPEDENCE	2.90%
KVA	37	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	ASKAREL
SEC	120	GAL LIQUID	38

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H2O COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	
TOP FPV		POWER V/A	
BOTTOM FPV		OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION LEAKS

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT

COLOR LABEL CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP. GR.	VISUAL	SEDIMENT
9/00/78					.015 AC	N/A	30 AC	PALE YELD AC		CLEAR AC	NONE AC
5/29/85	********	NOT TESTED PER CUSTOMER REQUEST									

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

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TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

[illegible] MOWRY AVENUE, SUITE A, FREMONT, CA [illegible]

CUST.	GONZAGA UNIVERSITY	CITY	SPOKANE WA	ID # 17260000	DATE PRINTED 6/13/85
SUB. NAME	MADONNA HALL	UNIT #	OTHER	LOCATION INDOOR /	

NAMEPLATE DATA

MFG.	AC	EQUIP. TYPE	TRANSFORMER
DATE MFG		TRANS CLASS	
S/N	2680318	IMPEDENCE	2.90%
KVA	37	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	ASKAREL
SEC	120	GAL LIQUID	38

ADDITIONAL EQUIPMENT

RADIATORS	NO	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H2O COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	
TOP FPV		POWER V/A	
BOTTOM FPV		OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION LEAKS

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT

COLOR LABEL CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID	IFT	DIEL	COLOR	SP. GR.	VISUAL	SEDIMENT
9/00/78					.035 AC	N/A	46 AC	PALE YELO AC		CLEAR AC	NONE AC
5/29/85	********	NOT TESTED PER CUSTOMER REQUEST									

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

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TRANSFORMER CONSULTANTS
A DIVISION OF S.D. MYERS INC.

CUST GONZAGA UNIVERSITY | CITY SPOKANE WA | ID # 17260000 | DATE PRINTED 6/13/85
SUB. NAME STUDENT UNION | UNIT # | OTHER | LOCATION INDOOR /

NAMEPLATE DATA

MFG.	GE	EQUIP. TYPE	TRANSFORMER
DATE MFG		TRANS CLASS	
S/N	E385922 61P	IMPEDENCE	2.10%
KVA	167	PHASE/CYCLE	1/60
PRI	7,620	LIQUID TYPE	OIL
SEC	120	GAL LIQUID	75

ADDITIONAL EQUIPMENT

RADIATORS	YES	CONSERVATOR	NO
FANS	NO	TAP CHANGER	NO
H20 COOLED	NO	BUSHING LOC	TOP & SIDE
OIL PUMPS	NO	RECLAIMER	
TOP FPV		POWER V/A	
BOTTOM FPV		OTHER ACCESS	TOP INSPECTION PLATE

VISUAL INSPECTION

PAINT CONDITION GOOD LEAKS NONE

FIELD SERVICE

PCB CONTENT / EXPRESSED IN PPM

DATE OF SERVICE	1242 AROCLOR	1254 AROCLOR	1260 AROCLOR	TOTAL CONTENT
5/29/85			378	378

COLOR LABEL ORANGE CLASS

LIQUID SCREEN TEST DATA

DATE	SERVICE	LEVEL	TEMP	P/V	ACID		IFT		DIEL		COLOR		SP GR.		VISUAL		SEDIMENT	
3/00/78					.020	AC	30.3	QU	32	AC	0.50	AC	0.870	AC	CLEAR	AC	NONE	AC
5/29/85					.040	AC	32.6	AC	43	AC	1.00	AC	0.870	AC	CLEAR	AC	NONE	AC

COMMENTS

GAS-IN-OIL ANALYSIS / GAS CHROMATOGRAPHY EXPRESSED IN PPM

DATE	SERVICE	HYDROGEN	OXYGEN	NITROGEN	METHANE	CARBON MONOXIDE	CARBON DIOXIDE	ETHANE	ETHYLENE	ACETYLENE	TOTAL COMBUSTIBLE	TOTAL GAS

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poenas for witnesses may be issued where necessary.

(d) Within one week after the insertion into the record of the ruling under paragraph (b) of this section, the hearing at which the cross-examination will be conducted will begin. One or more members of the original panel will preside for EPA. The panel will have authority to conduct cross-examination on behalf of any participant, although as a general rule this right will not be exercised. The panel will also have authority to modify the governing ruling in any respect and to make new rulings on group representation under section 6(e)(3)(C) of TSCA. A verbatim transcript of the hearing will be made.

(e)(1) No later than the time set for requesting cross-examination, a hearing participant may request that other alternative methods of clarifying the record (such as informal conferences or the submittal of additional information) be used. Such requests may be submitted either in lieu of cross-examination requests, or in conjunction with them.

(2) The panel in passing on a cross-examination request may, as a precondition to ruling on its merits, require that alternative means of clarifying the record be used whether or not that has been requested under paragraph (e)(1) of this section. In such a case, the results of the use of such alternative means will be made available to the person requesting cross-examination for a one-week comment period, and the panel will make a final ruling on cross-examination within one week thereafter.

(f) Waivers or extensions of any deadline in this section applicable to persons other than EPA may be granted on the record of the hearing by the person chairing it or in writing by the Hearing Chairman.

§ 750.41 Final rule.

(a) As soon as feasible after the deadline for submittal of reply comments, EPA will issue a final rule. EPA will also publish at that time:

(1) A list of all material added to the record (other than public comments and material from the hearing record) which has not previously been listed in a FEDERAL REGISTER document, and

(2) The effective date of the rule.

(b) Pursuant to the delegation of authority made in the Preamble to the Final Regulation for the PCB Manufacturing, Processing, Distribution in Commerce and Use Prohibitions, the Assistant Administrator for Toxic Substances will grant or deny petitions under section 6(e)(3)(B) of TSCA submitted pursuant to § 750.31. The Assistant Administrator will act on such petitions subsequent to opportunity for an informal hearing pursuant to this rule.

(c) In determining whether to grant an exemption to the PCB ban, EPA will apply the two standards enunciated in section 6(e)(3)(B) of TSCA.

PART 761—POLYCHLORINATED BIPHENYLS (PCBs) MANUFACTURING, PROCESSING, DISTRIBUTION IN COMMERCE, AND USE PROHIBITIONS

Subpart A—General

Sec.
761.1 Applicability.
761.3 Definitions.
761.19 References.

Subpart B—Manufacturing, Processing, Distribution in Commerce, and Use of PCBs and PCB Items

761.20 Prohibitions.
761.30 Authorizations.

Subpart C—Marking of PCBs and PCB Items

761.40 Marking requirements.
761.45 Marking formats.

Subpart D—Storage and Disposal

761.60 Disposal requirements.
761.65 Storage for disposal.
761.70 Incineration.
761.75 Chemical waste landfills.
761.79 Decontamination.

Subpart E—Exemptions

761.80 Manufacturing, processing, and distribution in commerce exemptions.

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EPA REGION 10

REVISED

Subparts F-I—[Reserved]

Subpart J—Records and Reports

761.180 Records and monitoring.
761.185 Certification program and retention of records by importers and persons generating PCBs in excluded manufacturing processes.
761.187 Reporting importers and by persons generating PCBs in excluded manufacturing processes.
761.193 Maintenance of monitoring records by persons who import, manufacture, process, distribute in commerce, or use chemicals containing inadvertently generated PCBs.

AUTHORITY: 15 U.S.C. 2605, 2607, and 2611.

Subpart A—General

761.1 Applicability.

(a) This part establishes prohibitions of and requirements for, the manufacture, processing, distribution in commerce, use, disposal, storage, and marking of PCBs and PCB Items.

(b) This part applies to all persons who manufacture, process, distribute in commerce, use, or dispose of PCBs or PCB Items. Substances that are regulated by this rule include, but are not limited to, dielectric fluids, contaminated solvents, oils, waste oils, heat transfer fluids, hydraulic fluids, paints, sludges, slurries, dredge spoils, soils, materials contaminated as a result of spills, and other chemical substances or combination of substances, including impurities and byproducts and any byproduct, intermediate or impurity manufactured at any point in a process. Most of the provisions of this part apply to PCBs only if PCBs are present in concentrations above a specified level. For example, Subpart D applies generally to materials at concentrations of 50 parts per million (ppm) and above. Also certain provisions of Subpart B apply to PCBs inadvertently generated in manufacturing processes at concentrations specified in the definition of "PCB" under § 761.3. No provision specifying a PCB concentration may be avoided as a result of any dilution, unless otherwise specifically provided.

(c) Definitions of the terms used in these regulations are in Subpart A. The basic requirements applicable to disposal and marking of PCBs and PCB Items are set forth in Subpart D—Disposal of PCBs and PCB Items and in Subpart C—Marking of PCBs and PCB Items. Prohibitions applicable to PCB activities are set forth in Subpart B—Manufacture, Processing, Distribution in Commerce, and Use of PCBs and PCB Items. Subpart B also includes authorizations from the prohibitions. Subparts C and D set forth the specific requirements for disposal and marking of PCBs and PCB Items.

(d) Section 15 of the Toxic Substances Control Act (TSCA) states that failure to comply with these regulations is unlawful. Section 16 imposes liability for civil penalties upon any person who violates these regulations, and the Administrator can establish appropriate remedies for any violations subject to any limitations included in section 16 of TSCA. Section 15 also subjects a person to criminal prosecution for a violation which is knowing or willful. In addition, section 17 authorizes Federal district courts to enjoin activities prohibited by these regulations, compel the taking of actions required by these regulations, and issue orders to seize PCBs and PCB Items manufactured, processed or distributed in violation of these regulations.

(e) These regulations do not preempt other more stringent Federal statutes and regulations.

(f) Unless and until superseded by any new more stringent regulations issued under EPA authorities, or any permits or any pretreatment requirements issued by EPA, a state or local government that affect release of PCBs to any particular medium:

(1) Persons who inadvertently manufacture or import PCBs generated as unintentional impurities in excluded manufacturing processes, as defined in § 761.3, are exempt from the requirements of Subpart B of this part, provided that such persons comply with Subpart J of this part, as applicable.

(2) Persons who process, distribute in commerce, or use products containing PCBs generated in excluded manufacturing processes defined in § 761.3 are exempt from the requirements of Subpart B provided that such persons comply with Subpart J of this part, as applicable.

(3) Persons who process, distribute in commerce, or use products containing recycled PCBs defined in § 761.3, are exempt from the requirements of Subpart B of this part, provided that such persons comply with Subpart J of this part, as applicable.

Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979, as amended at 49 FR 28139, July 10, 1984]

761.3 Definitions.

For the purpose of this part:

"Administrator" means the Administrator of the Environmental Protection Agency, or any employee of the Agency to whom the Administrator may either herein or by order delegate his authority to carry out his functions, or any person who shall by operation of law be authorized to carry out such functions.

"Agency" means the United States Environmental Protection Agency.

"Byproduct" means a chemical substance produced without separate commercial intent during the manufacturing or processing of another chemical substance(s) or mixture(s).

"Capacitor" means a device for accumulating and holding a charge of electricity and consisting of conducting surfaces separated by a dielectric. Types of capacitors are as follows:

(1) "Small capacitor" means a capacitor which contains less than 1.36 kg (3 lbs.) of dielectric fluid. The following assumptions may be used if the actual weight of the dielectric fluid is unknown. A capacitor whose total volume is less than 1,639 cubic centimeters (100 cubic inches) may be considered to contain less than 1.36 kgs (3 lbs.) of dielectric fluid and a capacitor whose total volume is more than 3,278 cubic centimeters (200 cubic inches) must be considered to contain more than 1.36 kg (3 lbs.) of dielectric fluid. A capacitor whose volume is between 1,639 and 3,278 cubic centimeters may be considered to contain less then 1.36 kg (3 lbs.) of dielectric fluid if the total weight of the capacitor is less than 4.08 kg (9 lbs.).

(2) "Large high voltage capacitor" means a capacitor which contains 1.36 kg (3 lbs.) or more of dielectric fluid and which operates at 2,000 volts (a.c. or d.c.) or above.

(3) "Large low voltage capacitor" means a capacitor which contains 1.36 kg (3 lbs.) or more of dielectric fluid and which operates below 2,000 volts (a.c. or d.c.).

"Chemical substance", (1) except as provided in paragraph (2) of this definition, means any organic or inorganic substance of a particular molecular identity, including: any combination of such substances occurring in whole or part as a result of a chemical reaction or occurring in nature, and any element or uncombined radical.

(2) Such term does not include: any mixture; any pesticide (as defined in the Federal Insecticide, Fungicide, and Rodenticide Act) when manufactured, processed, or distributed in commerce for use as a pesticide; tobacco or any tobacco product; any source material, special nuclear material, or byproduct material (as such terms are defined in the Atomic Energy Act of 1954 and regulations issued under such Act); any article the sale of which is subject to the tax imposed by section 4181 of the Internal Revenue Code of 1954 (determined without regard to any exemptions from such tax provided by section 4182 or section 4221 or any provisions of such Code); and any food, food additive, drug, cosmetic, or device (as such terms are defined in section 201 of the Federal Food, Drug, and Cosmetic Act) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device.

"Chemical waste landfill" means a landfill at which protection against risk of injury to health or the environment from migration of PCBs to land, water, or the atmosphere is provided from PCBs and PCB Items deposited therein by locating, engineering, and operating the landfill as specified in § 761.75.

"Commerce" means trade, traffic, transportation, or other commerce:

(1) Between a place in a State and any place outside of such State, or

(2) Which affects trade, traffic, transportation, or commerce described in paragraph (1) of this definition.

"Disposal" means intentionally or accidentally to discard, throw away, or otherwise complete or terminate the useful life of PCBs and PCB Items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs as well as actions related to containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB Items.

"Distribute in commerce" and "Distribution in Commerce" when used to describe an action taken with respect to a chemical substance, mixture, or article containing a substance or mixture means to sell, or the sale of, the substance, mixture, or article in commerce; to introduce or deliver for introduction into commerce, or the introduction or delivery for introduction into commerce of the substance, mixture, or article; or to hold or the holding of, the substance, mixture, or article after its introduction into commerce.

"Excluded manufacturing process" means a manufacturing process in which quantities of PCBs, as determined in accordance with the definition of inadvertently generated PCBs, calculated as defined, and from which releases to products, air, and water meet the requirements of paragraphs (1) through (5) of this definition, or the importation of products containing PCBs as unintentional impurities, which products meet the requirements of paragraph (1) and (2) of this definition.

(1) The concentration of inadvertently generated PCBs in products leaving any manufacturing site or imported into the United States must have an annual average of less than 25 ppm, with a 50 ppm maximum.

(2) The concentration of inadvertently generated PCBs in the components of detergent bars leaving the manufacturing site or imported into the United States must be less than 5 ppm.

(3) The release of inadvertently generated PCBs at the point at which emissions are vented to ambient air must be less than 10 ppm.

(4) The amount of inadvertently generated PCBs added to water discharged from a manufacturing site must be less than 100 micrograms per resolvable gas chromatographic peak per liter of water discharged.

(5) Disposal of any other process wastes above concentrations of 50 ppm PCB must be in accordance with Subpart D of this part.

"Fluorescent light ballast" means a device that electrically controls fluorescent light fixtures and that includes a capacitor containing 0.1 kg or less of dielectric.

"Impurity" means a chemical substance which is unintentionally present with another chemical substance.

"In or Near Commercial Buildings" means within the interior of, on the roof of, attached to the exterior wall of, in the parking area serving, or within 30 meters of a non-industrial non-substation building. Commercial buildings are typically accessible to both members of the general public and employees, and include: (1) Public assembly properties, (2) educational properties, (3) institutional properties, (4) residential properties, (5) stores, (6) office buildings, and (7) transportation centers (e.g., airport terminal buildings, subway stations, bus stations, or train stations).

"Incinerator" means an engineered device using controlled flame combustion to thermally degrade PCBs and PCB Items. Examples of devices used for incineration include rotary kilns, liquid injection incinerators, cement kilns, and high temperature boilers.

"Industrial building" means a building directly used in manufacturing or technically productive enterprises. Industrial buildings are not generally or typically accessible to other than workers. Industrial buildings include buildings used directly in the production of power, the manufacture of products, the mining of raw materials, and the storage of textiles, petroleum products, wood and paper products, chemicals, plastics, and metals.

"Leak" or "leaking" means any instance in which a PCB Article, PCB Container, or PCB Equipment has any PCBs on any portion of its external surface.

"Manned Control Center" means an electrical power distribution control room where the operating conditions of a PCB Transformer are continuously monitored during the normal hours of operation (of the facility), and, where the duty engineers, electricians, or other trained personnel have the capability to deenergize a PCB Transformer completely within 1 minute of the receipt of a signal indicating abnormal operating conditions such as an overtemperature condition or overpressure condition in a PCB Transformer.

"Manufacture" means to produce, manufacture, or import into the customs territory of the United States.

"Manufacturing process" means all of a series of unit operations operating at a site, resulting in the production of a product.

"Mark" means the descriptive name, instructions, cautions, or other information applied to PCBs and PCB Items, or other objects subject to these regulations.

"Marked" means the marking of PCB Items and PCB storage areas and transport vehicles by means of applying a legible mark by painting, fixation of an adhesive label, or by any other method that meets the requirements of these regulations.

"Mixture" means any combination of two or more chemical substances if the combination does not occur in nature and is not, in whole or in part, the result of a chemical reaction; except that such term does include any combination which occurs, in whole or in part, as a result of a chemical reaction if none of the chemical substances comprising the combination is a new chemical substance and if the combination could have been manufactured for commercial purposes without a chemical reaction at the time the chemical substances comprising the combination were combined.

"Municipal solid wastes" means garbage, refuse, sludges, wastes, and other discarded materials resulting from residential and non-industrial operations and activities, such as household activities, office functions, and commercial housekeeping wastes.

"On site" means within the boundaries of a contiguous property unit.

"PCB" and "PCBs" means any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance. Refer to § 761.1(b) for applicable concentrations of PCBs. PCB and PCBs as contained in PCB items are defined in § 761.3. For any purposes under this part, inadvertently generated non-Aroclor PCBs are defined as the total PCBs calculated following division of the quantity of monochlorinated biphenyls by 50 and dichlorinated biphenyls by 5.

"PCB Article" means any manufactured article, other than a PCB Container, that contains PCBs and whose surface(s) has been in direct contact with PCBs. "PCB Article" includes capacitors, transformers, electric motors, pumps, pipes and any other manufactured item (1) which is formed to a specific shape or design during manufacture, (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the PCB Article.

"PCB Article Container" means any package, can, bottle, bag, barrel, drum, tank, or other device used to contain PCB Articles or PCB Equipment, and whose surface(s) has not been in direct contact with PCBs.

"PCB Container" means any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB Articles and whose surface(s) has been in direct contact with PCBs.

"PCB Equipment" means any manufactured item, other than a PCB Container or a PCB Article Container, which contains a PCB Article or other PCB Equipment, and includes microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures.

"PCB Item" is defined as any PCB Article, PCB Article Container, PCB Container, or PCB Equipment, that deliberately or unintentionally contains or has a part of it any PCB or PCBs.

"PCB Transformer" means any transformer that contains 500 ppm PCB or greater.

"PCB-Contaminated Electrical Equipment" means any electrical equipment, including but not limited to transformers (including those used in railway locomotives and self-propelled cars), capacitors, circuit breakers, reclosers, voltage regulators, switches (including sectionalizers and motor starters), electromagnets, and cable, that contain 50 ppm or greater PCB, but less than 500 ppm PCB. Oil-filled electrical equipment other than circuit breakers, reclosers, and cable whose PCB concentration is unknown must be assumed to be PCB-Contaminated Electrical Equipment. (See 761.30 (a) and (h) for provisions permitting reclassification of electrical equipment containing 500 ppm or greater PCBs to PCB-Contaminated Electrical Equipment).

"Person" means any natural or judicial person including any individual, corporation, partnership, or association; any State or political subdivision thereof; any interstate body; and any department, agency, or instrumentality of the Federal Government.

"Posing an exposure risk to food or feed" means being in any location where human food or animal feed products could be exposed to PCBs released from a PCB Item. A PCB Item poses an exposure risk to food or feed if PCBs released in any way from the PCB Item have a potential pathway to human food or animal feed. EPA considers human food or animal feed to include items regulated by the U.S. Department of Agriculture or the Food and Drug Administration as human food or animal feed; this includes direct additives. Food or feed is excluded from this definition if it is used or stored in private homes.

"Process" means the preparation of a chemical substance or mixture, after its manufacture, for distribution in commerce:

(1) In the same form or physical state as, or in a different form or physical state from, that in which it was received by the person so preparing such substance or mixture, or

(2) As part of an article containing the chemical substance or mixture.

"Qualified incinerator" means one of the following:

(1) An incinerator approved under the provisions of § 761.70. Any concentration of PCBs can be destroyed in an incinerator approved under § 761.70.

(2) A high efficiency boiler approved under the provisions of § 761.60(a)(3). Only PCBs in concentrations below 500 ppm can be destroyed in a high-efficiency boiler approved under §761.60(a)(3).

(3) An incinerator approved under section 3005(c) of the Resource Conservation and Recovery Act (42 U.S.C. 6925(c)) (RCRA). Only PCBs in concentrations below 50 ppm can be destroyed in a RCRA-approved incinerator. The manufacturer seeking to qualify a process as a controlled waste process by disposing of wastes in a RCRA-approved incinerator must make a determination that the incinerator is capable of destroying less readily burned compounds than the PCB homologs to be destroyed. The manufacturer may use the same guidance used by EPA in making such a determination when issuing an approval under section 3005(c) of RCRA. The manufacturer is also responsible for obtaining a reasonable assurance that the incinerator, when burning PCB wastes, will be operated under conditions which have been shown to enable the incinerator to destroy the less readily burned compounds.

"Recycled PCBs" are defined as those intentionally manufactured PCBs which appear in the processing of paper products or asphalt roofing materials as PCB-contaminated raw materials and which meet the requirements of (1) through (5) of this definition.

(1) The concentration of Aroclor PCBs in paper products leaving any manufacturing site or imported into the United States must have an annual average of less than 25 ppm with a 50 ppm maximum.

(2) There are no detectable concentrations of Aroclor PCBs in asphalt roofing materials.

(3) The release of Aroclor PCBs at the point at which emissions are vented to ambient air must be less than 10 ppm.

(4) The amount of Aroclor PCBs added to water discharged from a processing site must at all times be

less than 3 micrograms per liter (µg/l) for total Aroclors (roughly 3 parts per billion (3 ppb)).

(5) Disposal of any other process wastes above concentrations of 50 ppm PCB must be in accordance with Subpart D of this part.

"Rupture of a PCB Transformer" means a violent or non-violent break in the integrity of a PCB Transformer caused by an overtemperature and/or overpressure condition that results in the release of PCBs.

"Sale for purposes other than resale" means sale of PCBs for purposes of disposal and for purposes of use, except where use involves sale for distribution in commerce. PCB Equipment which is first leased for purposes of use any time before July 1, 1979, will be considered sold for purposes other than resale.

"Small quantities for research and development" means any quantity of PCBs (1) that is originally packaged in one or more hermetically sealed containers of a volume of no more than five (5.0) milliliters, and (2) that is used only for purposes of scientific experimentation or analysis, or chemical research on, or analysis of, PCBs, but not for research or analysis for the development of a PCB product.

"Storage for disposal" means temporary storage of PCBs that have been designated for disposal.

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle.

"Totally enclosed manner" means any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs.

"Waste Oil" means used products primarily derived from petroleum, which include, but are not limited to, fuel oils, motor oils, gear oils, cutting oils transmission fluids, hydraulic fluids, and dielectric fluids.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 25239, June 20, 1984, as amended at 49 FR 28189, July 10, 1984; 49 FR 29066, July 18, 1984; 49 FR 44638, Nov. 8, 1984; 50 FR 29199, July 17, 1985; 50 FR 32176, Aug. 9, 1985]

§ 761.19 References.

(a) [Reserved]

(b) *Incorporations by reference.* The following material is incorporated by reference, and is available for inspection at the Office of the Federal Register Information Center, Rm. 8301, 1100 L St. NW., Washington, DC 20408. These incorporations by reference were approved by the Director of the Office of the Federal Register. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the FEDERAL REGISTER. Copies of the incorporated material may be obtained from the Environmental Protection Agency Document Control Officer (TS-793), Office of Pesticides and Toxic Substances, EPA, Rm. 106, 401 M St., SW., Washington, D.C. 20460, and from the American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103.

References	CFR Citation
ASTM D-93-80 Standard Test Method for Flash Point by Pensky-Martens Closed Tester.	§ 761.60(a)(3)(ii)(B)(6); § 761.75(b)(8)(ii).
ASTM D-129-64 (Reapproved 1978) Standard Test Method for Sulfur in Petroleum Products (General Bomb Method).	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-240-76 (Reapproved 1980) Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuel by Bomb Calorimeter.	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-482-80 Standard Test Method for Ash from Petroleum Products.	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-524-81 Standard Test Method for Ramsbottom Carbon Residue of Petroleum Products.	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-808-81 Standard Test Method for Chlorine in New and Used Petroleum Products (Bomb Method).	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-923-81 Standard Test Method for Sampling Electrical Insulating Liquids.	§ 761.60(g)(1)(ii); § 761.60(g)(2)(ii).
ASTM D-1266-80 (Reapproved 1981) Standard Test Method for Sulfur in Petroleum Products (Lamp Method).	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-1796-83 (Reapproved 1977) Methods for Water and Sediment in Crude Oils and Fuel Oils by Centrifuge.	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-2158-80 Standard Test Method for Residues in Liquefied Petroleum (LP) Gas.	§ 761.60(a)(3)(ii)(B)(6).
ASTM D-2709-68 (Reapproved 1982) Standard Test Method for Water and Sediment in Distillate Fuel by Centrifuge.	§ 761.60(a)(3)(ii)(B)(6).

References	CFR Citation
ASTM D-2784-80 Standard Test Method for Sulfur in Liquefied Petroleum Gases (Oxyhydrogen Burner or Lamp)	§ 761.60(a)(3)(iv)(B)(6)
ASTM D-3178-73 (Reapproved 1979) Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coke and Coal.	§ 761.60(a)(3)(iv)(B)(6)
ASTM D-3278-78 (Reapproved 1982) Standard Test Methods for Flash Point of Liquid by Setaflash Closed Tester.	§ 761.75(b)(8)(iv).
ASTM E-258-67 (Reapproved 1982) Standard Test Method for Total Nitrogen Inorganic Material by Modified KJELDAHL Method.	§ 761.60(a)(3)(iv)(B)(6).

[47 FR 22098, May 21, 1982, as amended at 49 FR 29067, July 18, 1984; 49 FR 36648, Sept. 19, 1984]

Subpart B—Manufacturing, Processing, Distribution in Commerce, and Use of PCBs and PCB Items

§ 761.20 Prohibitions.

Except as authorized in § 761.30, the activities listed in paragraphs (a) and (d) of this section are prohibited pursuant to section 6(e)(2) of TSCA. The requirements set forth in paragraphs (b) and (c) of this section concerning export and import of PCBs for purposes of disposal and PCB Items for purposes of disposal are established pursuant to section 6(e)(1) of TSCA. Subject to any exemptions granted pursuant to section 6(e)(3)(B) of TSCA, the activities listed in paragraphs (b) and (c) of this section are prohibited pursuant to section (6)(e)(3)(A) of TSCA. In addition, the Administrator hereby finds, under the authority of section 12(a)(2) of TSCA, that the manufacture, processing, and distribution in commerce of PCBs at concentrations of 50 ppm or greater and PCB Items with PCB concentrations of 50 ppm or greater present an unreasonable risk of injury to health within the United States. This finding is based upon the well-documented human health and environmental hazard of PCB exposure, the high probability of human and environmental exposure to PCBs and PCB Items from manufacturing, processing, or distribution activities; the potential hazard of PCB exposure posed by the transportation of PCBs or PCB Items within the United States; and the evidence that contamination of the environment by PCBs is spread far beyond the areas where they are used. In addition, the Administrator hereby finds, for purposes of section 6(e)(2)(C) of TSCA, that any exposure of human beings or the environment to PCBs, as measured or detected by any scientifically acceptable analytical method, may be significant, depending on such factors as the quantity of PCBs involved in the exposure, the likelihood of exposure to humans and the environment, and the effect of exposure. For purposes of determining which PCB Items are totally enclosed, pursuant to section 6(e)(2)(C) of TSCA, since exposure to such Items may be significant, the Administrator further finds that a totally enclosed manner is a manner which results in no exposure to humans or the environment to PCBs. The following activities are considered totally enclosed: distribution in commerce of intact, nonleaking electrical equipment such as transformers (including transformers used in railway locomotives and self-propelled cars), capacitors, electromagnets, voltage regulators, switches (including sectionalizers and motor starters), circuit breakers, reclosers, and cable that contain PCBs at any concentration and processing and distribution in commerce of PCB Equipment containing an intact, nonleaking PCB Capacitor. See paragraph (c)(1) of this section for provisions allowing the distribution in commerce of PCBs and PCB Items.

(a) No person may use any PCB, or any PCB Item regardless of concentration, in any manner other than in a totally enclosed manner within the United States unless authorized under § 761.30, except that an authorization is not required to use those PCBs or PCB Items resulting from an excluded manufacturing process or recycled PCBs defined in § 761.3, provided all applicable conditions of § 761.1(f) are met.

(b) No person may manufacture PCBs for use within the United States or manufacture PCBs for export from the United States without an exemption except that:

(1) No person may manufacture PCBs for use within the United States or manufacture PCBs for export from the United States without an exemption, except that an exemption is not required for PCBs manufactured in an excluded manufacturing process as defined in § 761.3, provided that all applicable conditions of § 761.1(f) are met.

(2) PCBs at concentrations less than 50 ppm may be imported or exported for purposes of disposal.

(c) No person may process or distribute in commerce any PCB, or any PCB Item regardless of concentration, for use within the United States or for export from the United States without an exemption, except that an exemption is not required to process or distribute in commerce PCBs or PCB Items resulting from an excluded manufacturing process as defined in § 761.3, or to process or distribute in commerce recycled PCBs as defined in § 761.3 provided that all applicable conditions of § 761.1(f) are met.

(1) PCBs at concentrations of 50 ppm or greater, or PCB Items with PCB concentrations of 50 ppm or greater, sold before July 1, 1979 for purposes other than resale may be distributed in commerce only in a totally enclosed manner after that date.

(2) PCBs at concentrations of 50 ppm or greater, or PCB Items with PCB concentrations of 50 ppm or greater may be processed and distributed in commerce in compliance with the requirements of this Part for purposes of disposal in accordance with the requirements of § 761.60.

(3) PCBs or PCB Items may be exported for disposal until May 1, 1980, if an export notice is submitted at least thirty (30) days before the first shipment in any calendar year leaves the customs territory of the United States. Export notices must be submitted to the Document Control Officer (TS-793), Office of Toxic Substances, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The generator of the PCB waste material intended for disposal, or an agent acting on his behalf, must certify to the best of his knowledge and belief that the information is complete and accurate. Each notice should contain the following information:

(i) Name, company name, address, and telephone number of the owner of the PCB waste material to be exported and the name and address of any person or agent acting on his behalf;

(ii) Estimated quantity of wastes to be shipped during the calendar year and the estimated number of shipments to be made and the dates when such shipments are expected to leave the customs territory of the United States;

(iii) Description of the PCBs or PCB Items being exported;

(iv) Country(s) of destination for the shipments;

(v) Name and address of facility(s) receiving the shipment and person(s) responsible for receiving the shipment(s).

(vi) Method(s) of disposal and precautions taken to control release into the environment.

(vii) No less than 30 days after the end of each calendar quarter (March 31, June 30, September 30, and December 31) during which PCBs were exported for disposal, each person exporting the PCBs must submit a report to the Document Control Officer (TS-793), Office of Toxic Substances, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460. The report shall list the quantity of PCB wastes in each shipment made during the quarter and include the date when each shipment left the customs territory of the United States and the information specified in paragraphs (c)(3)(i) and (iii) through (vi) of this section. If the quantity of wastes shipped during the calendar year exceeds by 25 percent or more the estimated quantities reported in paragraph (c)(3)(ii) of this section, a special export notice must be submitted to the Document Control Officer (TS-793) at the address given in paragraph (c)(3) at least 30 days before any additional shipments leave the customs territory of the United States and the notice shall include the information specified in paragraphs (c)(3) (i) through (vi) of this section.

(viii) Any person expecting to export PCB wastes for disposal in calendar

year 1980 must submit an export notice at least thirty (30) days before the first shipment leaves the customs territory of the United States to the Document Control Officer (TS-793) at the address given in paragraph (c)(3) of this section, and the notice shall contain the information listed in paragraphs (c)(3) (i) through (vi) of this section.

(4) PCBs, at concentrations of less than 50 ppm, or PCB items, with concentrations of less than 50 ppm, may be processed and distributed in commerce for purposes of disposal.

(d) The use of waste oil that contains any detectable concentration of PCB as a sealant, coating, or dust control agent is prohibited. Prohibited uses include, but are not limited to, road oiling, general dust control, use as a pesticide or herbicide carrier, and use as a rust preventative on pipes.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020, (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 49 FR 25241, June 20, 1984; 49 FR 28190, July 10, 1984; 49 FR 44638, Nov. 8, 1984]

§ 761.30 Authorizations.

The following non-totally enclosed PCB activities are authorized pursuant to section 6(e)(2)(B) of TSCA:

(a) *Use in and servicing of transformers (other than railroad transformers).* PCBs at any concentration may be used in transformers (other than in railroad locomotives and self-propelled railroad cars) and may be used for purposes of servicing including rebuilding these transformers for the remainder of their useful lives, subject to the following conditions:

(1) *Use conditions.* (i) As of October 1, 1985, the use and storage for reuse of PCB Transformers that pose an exposure risk to food or feed is prohibited.

(ii) As of October 1, 1990, the use of network PCB Transformers with higher secondary voltages (secondary voltages equal to or greater than 480 volts, including 480/277 volt systems) in or near commercial buildings is prohibited. Network PCB Transformers with higher secondary voltages which are removed from service in accordance with this requirement must either be reclassified to PCB Contaminated or non PCB status, placed into storage for disposal, or disposed.

(iii) As of October 1, 1985, the installation of PCB Transformers (which have been placed into storage for reuse or which have been removed from another location) in or near commercial buildings is prohibited.

(iv) As of October 1, 1990, all radial PCB Transformers and lower secondary voltage network PCB Transformers (network transformers with secondary voltages below 480 volts) in use in or near commercial buildings must be equipped with electrical protection to avoid transformer failures caused by high current faults. Current-limiting fuses or other equivalent technology must be used to detect sustained high current faults and provide for complete deenergization of the transformer within several tenths of a second of detection, before transformer failure occurs. The installation, setting, and maintenance of current-limiting fuses or other equivalent technology to avoid PCB Transformer failures from sustained high current faults must be completed in accordance with good engineering practices.

(v) As of October 1, 1990, all radial PCB Transformers with higher secondary voltages (480 volts and above, including 480/277 volt systems) in use in or near commercial buildings must (in addition to the requirements of paragraph (a)(1)(iv) of this section) be equipped with protection to avoid transformer failures caused by sustained low current faults.

(A) Pressure and temperature sensors (or other equivalent technology which has been demonstrated to be effective in the early detection of sustained low current faults) must be used in these transformers to detect sustained low current faults.

(B) Disconnect equipment must be provided to insure complete deenergization of the transformer in the event of a sensed abnormal condition (e.g., an overpressure or overtemperature condition in the transformer), caused by a sustained low current fault. The disconnect equipment must be configured to operate automatically within 30 seconds to 1 minute of the receipt of a signal indicating an abnormal condition from a sustained low current fault, or can be configured to allow for manual deenergization from a manned on site control center upon the receipt of an audio or visual signal indicating an abnormal condition caused by a sustained low current fault. Manual deenergization from a manned on-site control center must occur within 1 minute of the receipt of the audio or visual signal indicating an abnormal condition caused by a sustained low current fault. If automatic operation is selected and a circuit breaker is utilized for disconnection, it must also have the capability to be manually opened if necessary.

(C) The enhanced electrical protective system required for the detection of sustained low current faults and the complete and rapid deenergization of transformers must be properly installed, maintained, and set sensitive enough (in accordance with good engineering practices) to detect sustained low current faults and allow for rapid and total deenergization prior to PCB Transformer rupture (either violent or non violent rupture) and release of PCBs.

(vi) As of December 1, 1985, all PCB Transformers (including PCB Transformers in storage for reuse) must be registered with fire response personnel with primary jurisdiction (that is, the fire department or fire brigade which would normally be called upon for the initial response to a fire involving the equipment). Information required to be provided to fire response personnel includes:

(A) The location of the PCB Transformer(s) (the address(es) of the building(s) and the physical location of the PCB Transformer(s) on the building site(s) and for outdoor PCB Transformers, the location of the outdoor substation).

(B) The principal constituent of the dielectric fluid in the transformer(s) (e.g., PCBs, mineral oil, or silicone oil).

(C) The name and telephone number of the person to contact in the event of a fire involving the equipment.

(vii) As of December 1, 1985, PCB Transformers in use in or near commercial buildings must be registered with building owners. For PCB Transformers located in commercial buildings, PCB Transformer owners must register the transformers with the building owner of record. For PCB Transformers located near commercial buildings, PCB Transformer owners must register the transformers with all owners of buildings located within 30 meters of the PCB Transformer(s). Information required to be provided to building owners by PCB Transformer owners includes but is not limited to:

(A) The specific location of the PCB Transformer(s).

(B) The principal constituent of the dielectric fluid in the transformer(s) (e.g., PCBs, mineral oil, or silicone oil).

(C) The type of transformer installation (e.g., 208/120 volt network, 280/120 volt radial, 208 volt radial, 480 volt network, 480/277 volt network, 480 volt radial, 480/277 volt radial).

(viii) As of December 1, 1985, combustible materials, including, but not limited to paints, solvents, plastics, paper, and sawn wood must not be stored within a PCB Transformer enclosure (i.e., in a transformer vault or in a partitioned area housing a transformer): within 5 meters of a transformer enclosure, or, if unenclosed (unpartitioned), within 5 meters of a PCB Transformer.

(ix) A visual inspection of each PCB Transformer (as defined in the definition of "PCB Transformer" under § 761.3) in use or stored for reuse shall be performed at least once every 3 months. These inspections may take place any time during the 3-month periods: January-March, April-June, July-September, and October-December as long as there is a minimum of 30 days between inspections. The visual inspection must include investigation for any leak of dielectric fluid on or around the transformer. The extent of the visual inspections will depend on the physical constraints of each transformer installation and should not require an electrical shutdown of the transformer being inspected.

(x) If a PCB Transformer is found to have a leak which results in any quantity of PCBs running off or about to run off the external surface of the transformer, then the transformer must be repaired or replaced to elimi-

nate the source of the leak. In all cases any leaking material must be cleaned up and properly disposed of according to disposal requirements of § 761.60. Cleanup of the released PCBs must be initiated as soon as possible, but in no case later than 48 hours of its discovery. Until appropriate action is completed, any active leak of PCBs must be contained to prevent exposure of humans or the environment and inspected daily to verify containment of the leak. Trenches, dikes, buckets, and pans are examples of proper containment measures.

(xi) If a PCB Transformer is involved in a fire-related incident, the owner of the transformer must immediately report the incident to the National Response Center (toll-free 1-800-424-8802; in Washington, D.C. 202-426-2675). A fire-related incident is defined as any incident involving a PCB Transformer which involves the generation of sufficient heat and/or pressure (by any source) to result in the violent or non-violent rupture of a PCB Transformer and the release of PCBs. Information must be provided regarding the type of PCB Transformer installation involved in the fire-related incident (e.g., high or low secondary voltage network transformer, high or low secondary voltage simple radial system, expanded radial system, primary selective system, primary loop system, or secondary selective system or other systems) and the readily ascertainable cause of the fire-related incident (e.g., high current fault in the primary or secondary or low current fault in secondary). The owner of the PCB Transformer must also take measures as soon as practically and safely possible to contain and control any potential releases of PCBs and incomplete combustion products into water. These measures include, but are not limited to:

(A) The blocking of all floor drains in the vicinity of the transformer.

(B) The containment of water runoff.

(C) The control and treatment (prior to release) of any water used in subsequent cleanup operations.

(xii) Records of inspection and maintenance history shall be maintained at least 3 years after disposing of the transformer and shall be made available for inspection, upon request by EPA. Such records shall contain the following information for each PCB Transformer:

(A) Its location.

(B) The date of each visual inspection and the date that leak was discovered, if different from the inspection date.

(C) The person performing the inspection.

(D) The location of any leak(s).

(E) An estimate of the amount of dielectric fluid released from any leak.

(F) The date of any cleanup, containment, repair, or replacement.

(G) A description of any cleanup, containment, or repair performed.

(H) The results of any containment and daily inspection required for uncorrected active leaks.

(xiii) A reduced visual inspection frequency of at least once every 12 months applies to PCB Transformers that utilize either of the following risk reduction measures. These inspections may take place any time during the calendar year as long as there is a minimum of 180 days between inspections.

(A) A PCB Transformer which has impervious, undrained, secondary containment capacity of at least 100 percent of the total dielectric fluid volume of all transformers so contained or

(B) A PCB Transformer which has been tested and found to contain less than 60,000 ppm PCBs (after 3 months of in service use if the transformer has been serviced for purposes of reducing the PCB concentration).

(xiv) An increased visual inspection frequency of at least once every week applies to any PCB Transformer in use or stored for reuse which poses an exposure risk to food or feed. The user of a PCB Transformer posing an exposure risk to food is responsible for the inspection, recordkeeping, and maintenance requirements under this section until the user notifies the owner that the transformer may pose an exposure risk to food or feed. Following such notification, it is the owner's ultimate responsibility to determine whether the PCB Transformer poses an exposure risk to food or feed.

(2) *Servicing conditions.* (i) Transformers classified as PCB-Contaminated Electrical Equipment (as defined in the definition of "PCB-Contaminated Electrical Equipment" under § 761.3) may be serviced (including rebuilding) only with dielectric fluid containing less than 500 ppm PCB.

(ii) Any servicing (including rebuilding) of PCB Transformers (as defined in the definition of "PCB Transformer" under § 761.3) that requires the removal of the transformer coil from the transformer casing is prohibited. PCB Transformers may be serviced (including topping off) with dielectric fluid at any PCB concentration.

(iii) PCBs removed during any servicing activity must be captured and either reused as dielectric fluid or disposed of in accordance with the requirements of § 761.60. PCBs from PCB Transformers must not be mixed with or added to dielectric fluid from PCB-Contaminated Electrical Equipment.

(iv) Regardless of its PCB concentration, dielectric fluids containing less than 500 ppm PCB that are mixed with fluids that contain 500 ppm or greater PCB must not be used as dielectric fluid in any electrical equipment. The entire mixture of dielectric fluid must be considered to be greater than 500 ppm PCB and must be disposed of in an incinerator that meets the requirements in § 761.70.

(v) A PCB Transformer may be converted to PCB-Contaminated Electrical Equipment or to a non-PCB Transformer and a transformer that is classified as PCB-Contaminated Electrical Equipment may be reclassified to a non-PCB Transformer by draining, refilling and/or otherwise servicing the transformer. In order to reclassify, the transformer's dielectric fluid must contain less than 500 ppm PCB (for conversion to PCB-Contaminated Electrical Equipment) or less than 50 ppm PCB (for conversion to a non-PCB Transformer) after a minimum of three months of in-service use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the transformer. In-service means that the transformer is used electrically under loaded conditions that raise the temperature of the dielectric fluid to at least 50° Centigrade. The Assistant Administrator may grant, without further rulemaking, approval for the use of alternative methods that simulate the loaded conditions of in-service use. All PCBs removed from transformers for purposes of reducing PCB concentrations are subject to the disposal requirements of § 761.60.

(vi) Any dielectric fluid containing 50 ppm or greater PCB used for servicing transformers must be stored in accordance with the storage for disposal requirements of § 761.65.

(vii) Processing and distribution in commerce of PCBs for purposes of servicing transformers is permitted only for persons who are granted an exemption under TSCA 6(e)(3)(B).

(b) *Use in and servicing of railroad transformers.* PCBs may be used in transformers in railroad locomotives or railroad self-propelled cars ("railroad transformers") and may be processed and distributed in commerce for purposes of servicing these transformers in a manner other than a totally enclosed manner subject to the following conditions:

(1) *Use restrictions.* (i) After July 1, 1983, the number of railroad transformers containing a PCB concentration greater than 60,000 ppm (6.0 percent on a dry weight basis) in use by any affected railroad organization may not exceed two-thirds of the total railroad transformers containing PCBs in use by that organization on January 1, 1982.

(ii) After January 1, 1984, the number of railroad transformers containing a PCB concentration greater than 60,000 ppm in use by any affected railroad organization may not exceed one-third of the total railroad transformers containing PCBs in use by that organization on January 1, 1982.

(iii) After July 1, 1984, use of railroad transformers that contain dielectric fluids with a PCB concentration greater than 60,000 ppm is prohibited.

(iv) After July 1, 1985, the number of railroad transformers containing a PCB concentration greater than 1,000 ppm (0.1 percent on a dry weight basis) in use by any affected railroad organization may not exceed two-

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thirds of the total railroad transformers containing PCBs in use by that organization on July 1, 1984.

(v) After January 1, 1986, the number of railroad transformers containing a PCB concentration greater than 1,000 ppm in use by any affected railroad organization may not exceed one-third of the total railroad transformers containing PCBs in use by that organization on July 1, 1984.

(vi) After July 1, 1986, use of railroad transformers that contain dielectric fluids with a PCB concentration greater than 1,000 ppm is prohibited.

(vii) The concentration of PCBs in the dielectric fluid contained in railroad transformers must be measured:

(A) Immediately upon completion of any authorized servicing of a railroad transformer conducted for the purpose of reducing the PCB concentration in the dielectric fluid in the transformer, and

(B) Between 12 and 24 months after each servicing conducted in accordance with paragraph (b)(1)(vii)(A) of this section;

(C) The data obtained as a result of paragraphs (b)(1)(vii) (A) and (B) of this section shall be retained until January 1, 1991.

(2) *Servicing restrictions.* (i) If the coil is removed from the casing of a railroad transformer (e.g., the transformer is rebuilt), after January 1, 1982, the railroad transformer may not be refilled with dielectric fluid containing a PCB concentration greater than 50 ppm;

(ii) After January 1, 1982, railroad transformers may only be serviced with dielectric fluid containing less than 60,000 ppm PCBs, except as provided in paragraph (b)(2)(i) of this section;

(iii) After January 1, 1984, railroad transformers may only be serviced with dielectric fluid containing less than 1000 ppm PCB, except as provided in paragraph (b)(2)(i) of this section;

(iv) Dielectric fluid may be filtered through activated carbon or otherwise industrially processed for the purpose of reducing the PCB concentration in the fluid;

(v) Any PCB dielectric fluid that is used to service PCB railroad transformers must be stored in accordance with the storage for disposal requirements of § 761.65;

(vi) After July 1, 1979, processing and distribution in commerce of PCBs for purposes of servicing railroad transformers is permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(vii) A PCB Transformer may be converted to a PCB-Contaminated Transformer or to a non-PCB Transformer by draining, refilling, and/or otherwise servicing the railroad transformer. In order to reclassify, the railroad transformer's dielectric fluid must contain less than 500 ppm (for conversion to PCB-Contaminated Transformer) or less than 50 ppm PCB (for conversion to a non-PCB Transformer) after a minimum of three months of inservice use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the transformer.

(c) *Use in and servicing of mining equipment.* PCBs may be used in mining equipment and may be processed and distributed in commerce for purposes of servicing mining equipment in a manner other than a totally enclosed manner until January 1, 1982, subject to the following conditions:

(1) PCBs may be added to motors in mining equipment in mines or mining areas until January 1, 1982;

(2) PCB motors in loader-type mining equipment must be rebuilt as air-cooled or other non-PCB-containing motors whenever the motor is returned to a service shop for servicing;

(3) PCB motors in continuous miner-type equipment may be rebuilt as PCB motors until January 1, 1980;

(4) Any PCBs that are on hand to service or repair mining equipment must be stored in accordance with the storage for disposal requirements of § 761.65;

(5) After July 1, 1979, processing and distribution in commerce of PCBs for purposes of servicing mining equipment is permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(d) *Use in heat transfer systems.* After July 1, 1984, intentionally manufactured PCBs may be used in heat transfer systems in a manner other than a totally enclosed manner at a concentration level of less than 50 ppm provided that the requirements of paragraphs (d) (1) through (7) of this section are met.

(1) Each person who owns a heat transfer system that ever contained PCBs at concentrations above 50 ppm must test for the concentration of PCBs in the heat transfer fluid of such a system no later than November 1, 1979, and at least annually thereafter. All test sampling must be performed at least three months after the most recent fluid refilling. When a test shows that the PCB concentration is less than 50 ppm, testing under this paragraph is no longer required.

(2) Within six months of a test performed under paragraph (d)(1) of this section that indicates that a system's fluid contains 50 ppm or greater PCB (0.005% on a dry weight basis), the system must be drained of the PCBs and refilled with fluid containing less than 50 ppm PCB. Topping-off with heat transfer fluids containing PCB concentrations of less than 50 ppm is permitted.

(3) After November 1, 1979, no heat transfer system that is used in the manufacture or processing of any food, drug, cosmetic or device, as defined in section 201 of the Federal Food, Drug, and Cosmetic Act, may contain transfer fluid with 50 ppm or greater PCB (0.005% on a dry weight basis).

(4) Addition of fluids containing PCB concentrations greater than 50 ppm is prohibited.

(5) Data obtained as a result of paragraph (d)(1) of this section must be retained for five years after the heat transfer system reaches 50 ppm PCB.

(6) Each person who owns a heat transfer system that contains PCBs must provide workers with gloves made of viton elastomer to protect workers from dermal exposure to PCBs.

(7) All persons who maintain a heat transfer system must wear viton elastomer gloves while doing maintenance work on that system.

(e) *Use in hydraulic systems.* After July 1, 1984, intentionally manufactured PCBs may be used in hydraulic systems in a manner other than a totally enclosed manner at a concentration level of less than 50 ppm provided that the requirements in paragraphs (e) (1) through (7) of this section are met.

(1) Each person who owns a hydraulic system that ever contained PCBs at concentrations above 50 ppm must test for the concentration of PCBs in the hydraulic fluid of each system no later than November 1, 1979, and at least annually thereafter. All test sampling must be performed at least three months after the most recent fluid refilling. When a test shows that the PCB concentration is less than 50 ppm, testing under this paragraph is no longer required.

(2) Within six months of a test under paragraph (e)(1) of this section that indicates that a system's fluid contains 50 ppm or greater PCB (0.005% on a dry weight basis), the system must be drained of the PCBs and refilled with fluid containing less than 50 ppm PCB. Topping-off with hydraulic fluids containing PCB concentrations less than 50 ppm to reduce PCB concentrations is permitted.

(3) Addition of PCBs at concentrations of greater than 50 ppm is prohibited.

(4) Hydraulic fluid may be drained from a hydraulic system and filtered, distilled, or otherwise serviced in order to reduce the PCB concentration below 50 ppm.

(5) Data obtained as a result of paragraph (e)(1) of this section must be retained for five years after the hydraulic system reaches 50 ppm.

(6) Each person who owns a hydraulic system that contains PCBs must provide gloves made of viton elastomer to protect workers from dermal exposure to PCBs.

(7) All persons who maintain a hydraulic system that contains PCBs must wear viton elastomer gloves while doing maintenance work on that system.

(f) *Use in carbonless copy paper.* Carbonless copy paper containing PCBs may be used in a manner other than a totally enclosed manner indefinitely.

(g) *Pigments.* Diarylide and Phthalocyanin pigments that contain 50 ppm

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or greater PCB may be processed, distributed in commerce, and used in a manner other than a totally enclosed manner until January 1, 1982, except that after July 1, 1979, processing and distribution in commerce of diarylide or phthalocyanin pigments that contain 50 ppm or greater PCB is permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(h) *Use in and servicing of electromagnets, switches and voltage regulators.* PCBs at any concentration may be used in electromagnets, switches (including sectionalizers and motor starters), and voltage regulators and may be used for purposes of servicing this equipment (including rebuilding) for the remainder of their useful lives, subject to the following conditions:

(1) *Use conditions.* (i) After October 1, 1985, the use and storage for reuse of any electromagnet which poses an exposure risk to food or feed is prohibited if the electromagnet contains greater tha 500 ppm PCBs.

(ii) A visual inspection of each electromagnet subject to paragraph (h)(1)(i) shall be performed at least once every week according to the conditions contained in § 761.30(a)(1)(iii) and (iv).

(2) *Servicing conditions.* (i) Servicing (including rebuilding) any electromagnet, switch, or voltage regulator with a PCB concentration of 500 ppm or greater which requires the removal and rework of the internal components is prohibited.

(ii) Electromagnets, switches, and voltage regulators classified as PCB-Contaminated Electrical Equipment (as defined in the definition of "PCB-Contaminated Electrical Equipment" under § 761.3) may be serviced (including rebuilding) only with dielectric fluid containing less than 500 ppm PCB.

(iii) PCBs removed during any servicing activity must be captured and either reused as dielectric fluid or disposed of in accordance with the requirements of § 761.60. PCBs from electromagnets switches, and voltage regulators with a PCB concentration of at least 500 ppm must not be mixed with or added to dielectric fluid from PCB-Contaminated Electrical Equipment.

(iv) Regardless of its PCB (concentration, dielectric fluids containing less than 500 ppm PCB) that are mixed with fluids that contain 500 ppm or greater PCB must not be used as dielectric fluid in any electrical equipment. The entire mixture of dielectric fluid must be considered to be greater than 500 ppm PCB and must be disposed of in an incinerator that meets the requirements of § 761.70.

(v) An electromagnet, switch or voltage regulator with a PCB concentration of at least 500 ppm may be converted to PCB-Contaminated Electrical Equipment or to a non-PCB classification and PCB-Contaminated Electrical Equipment may be reclassified to a non-PCB classification by draining, refilling and/or otherwise servicing the equipment. In order to be reclassified, the equipment's dielectric fluid must contain less than 500 ppm PCB (for conversion to PCB-Contaminated Electrical Equipment) or less than 50 ppm PCB (for conversion to a non-PCB classification) after a minimum of three months of in-service use subsequent to the last servicing conducted for the purpose of reducing the PCB concentration in the equipment. In-service use means the equipment is used electrically under loaded conditions. The Assistant Administrator may grant, without further rulemaking, approval for the use of alternative methods that simulate the loaded conditions of in-service use. All PCBs removed from this equipment for purposes of reducing PCB concentrations are subject to the disposal requirements of § 761.60.

(vi) Any dielectric fluid containing 50 ppm or greater PCB used for servicing electromagnets, switches, or voltage regulators must be stored in accordance with the storage for disposal requirements of § 761.65.

(vii) Processing and distribution in commerce of PCBs for purposes of servicing electromagnets, switches or voltage regulators is permitted only for persons who are granted an exemption under TSCA 6(e)(3)(B).

(i) *Use in compressors and in the liquid of natural gas pipelines.* PCBs may be used indefinitely in the compressors and in the liquids of natural gas pipelines at a concentration level of less than 50 ppm provided that they are marked in accordance with § 761.45(a).

(j) *Small quantities for research and development.* PCBs may be used in small quantities for research and development, as defined in § 761.3(ee), in a manner other than a totally enclosed manner, indefinitely. Manufacture, processing, and distribution in commerce of PCBs in small quantities for research and development is permitted only for persons who have been granted an exemption under TSCA section 6(e)(3)(B).

(k) *Microscopy mounting medium.* PCBs may be used as a permanent microscopic mounting medium in a manner other than a totally enclosed manner indefinitely. Manufacture, processing, and distribution in commerce of PCBs for purposes of use as a mounting medium are permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(l) *Use in capacitors.* PCBs at any concentration may be used in capacitors, subject to the following conditions:

(1) *Use conditions.* (i) After October 1, 1988, the use and storage for reuse of PCB Large High Voltage Capacitors and PCB Large Low Voltage Capacitors which pose an exposure risk to food or feed is prohibited.

(ii) After October 1, 1988, the use of PCB Large High Voltage Capacitors and PCB Large Low Voltage Capacitors is prohibited unless the capacitor is used within a restricted-access electrical substation or in a contained and restricted-access indoor installation. A restricted-access electrical substation is an outdoor, fenced or walled-in facility that restricts public access and is used in the transmission or distribution of electric power. A contained and restricted-access indoor installation does not have public access and has an adequate roof, walls, and floor to contain any release of PCBs within the indoor location.

(m) *Use in and servicing of circuit breakers, reclosers and cable.* PCBs at any concentration may be used in circuit breakers, reclosers, and cable and may be used for purposes of servicing this electrical equipment (including rebuilding) for the remainder of their useful lives, subject to the following conditions:

(1) *Servicing conditions.* (i) Circuit breakers, reclosers, and cable may be serviced (including rebuilding) only with dielectric fluid containing less than 50 ppm PCB.

(ii) Any circuit breaker, recloser or cable found to contain at least 50 ppm PCBs may be serviced only in accordance with the conditions contained in 40 CFR 761.30(h)(2).

(n) *Microscopy immersion oil.* PCBs may be used as an immersion oil in fluorescence microscopy, in a manner other than a totally enclosed manner indefinitely. Manufacture, processing, and distribution in commerce of PCBs for purposes of use as a low fluorescence immersion oil are permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(o) *Optical liquids.* PCBs may be used as optical liquids in a manner other than a totally enclosed manner indefinitely. Manufacture, processing, and distribution in commerce of PCBs for purposes of use as optical liquids are permitted only for persons who are granted an exemption under TSCA section 6(e)(3)(B).

(Approved by the Office of Management and Budget under control number 2070-0003; the recordkeeping requirements of paragraphs (a)(1) (vi), (vii), and (xi) were approved by the Office of Management and Budget under control number 2070-0073; the recordkeeping requirements of paragraph (xii) were approved by the Office of Management and Budget under control number 2070-0007)

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020, 2025 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 47 FR 37757, Aug. 25, 1982; 48 FR 135, Jan. 3, 1983; 49 FR 25241 and 25242, June 20, 1984; 49 FR 28190, and 28202, July 10, 1984; 50 FR 29199, July 17, 1985]

Subpart C—Marking of PCBs and PCB Items

§ 761.40 Marking requirements.

(a) Each of the following items in existence on or after July 1, 1978 shall be marked as illustrated in Figure 1 in § 761.44(a): The mark illustrated in Figure 1 is referred to as M_L throughout this subpart.

(1) PCB Containers;

(2) PCB Transformers at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked. [Marking of PCB-Contaminated Electrical Equipment is not required];

(3) PCB Large High Voltage Capacitors at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked;

(4) Equipment containing a PCB Transformer or a PCB Large High Voltage Capacitor at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal of the equipment from use if not already marked;

(5) PCB Large Low Voltage Capacitors at the time of removal from use;

(6) Electric motors using PCB coolants (See also paragraph (e) of this section).

(7) Hydraulic systems using PCB hydraulic fluid (See also paragraph (e) of this section);

(8) Heat transfer systems (other than PCB Transformers) using PCBs (See also paragraph (e) of this section);

(9) PCB Article Containers containing articles or equipment that must be marked under paragraph (a) (1) through (8) of this section;

(10) Each storage area used to store PCBs and PCB Items for disposal.

(b) As of October 1, 1978, each transport vehicle shall be marked on each end and side with M_L as described in § 761.45(a) if it is loaded with PCB Containers that contain more than 45 kg (99.4 lbs.) of PCBs in the liquid phase or with one or more PCB Transformers (See also paragraph (e) of this section).

(c) As of January 1, 1979, the following PCB Articles shall be marked with mark M_L as described in § 761.45(a):

(1) All PCB Transformers not marked under paragraph (a) of this section [marking of PCB-Contaminated Electrical Equipment is not required];

(2) All PCB Large High Voltage Capacitors not marked under paragraph (a) of this section

(i) Will be marked individually with mark M_L, or

(ii) If one or more PCB Large High Voltage Capacitors are installed in a protected location such as on a power pole, or structure, or behind a fence; the pole, structure, or fence shall be marked with mark M_L, and a record or procedure identifying the PCB Capacitors shall be maintained by the owner or operator at the protected location.

(d) As of January 1, 1979, all PCB Equipment containing a PCB Small Capacitor shall be marked at the time of manufacture with the statement, "This equipment contains PCB Capacitor(s)". The mark shall be of the same size as the mark M_L.

(e) As of October 1, 1979, applicable PCB Items in paragraph (a) (1), (6), (7), and (8) of this section containing PCBs in concentrations of 50 to 500 ppm and applicable transport vehicles in paragraph (b) of this section loaded with PCB Containers that contain more than 45 kg (99.4 lbs.) of liquid PCBs in concentrations of 50 ppm to 500 ppm shall be marked with mark M_L as described in § 761.45(a).

(f) Where mark M_L is specified but the PCB Article or PCB Equipment is too small to accomodate the smallest permissible size of mark M_L, mark M_s as described in § 761.45(b), may be used instead of mark M_L.

(g) Each large low voltage capacitor, each small capacitor normally used in alternating current circuits, and each fluorescent light ballast manufactured ("manufactured", for purposes of this sentence, means built) between July 1, 1978 and July 1, 1998 that do not contain PCBs shall be marked by the manufacturer at the time of manufacture with the statement, "No PCBs". The mark shall be of similar durability and readability as other marking that indicate electrical information, part numbers, or the manufacturer's name. For purposes of this paragraph marking requirement only is applicable to items built domestically or abroad after June 30, 1978.

(h) All marks required by this subpart must be placed in a position on the exterior of the PCB Items or transport vehicles so that the marks can be easily read by any persons inspecting or servicing the marked PCB Items or transport vehicles.

(i) Any chemical substance or mixture that is manufactured after the effective date of this rule and that contains less than 500 ppm PCB (0.05% on a dry weight basis), including PCB that is a byproduct or impurity, must be marked in accordance with any requirements contained in the exemption granted by EPA to permit such manufacture and is not subject to any other requirement in this subpart unless so specified in the exemption. This paragraph applies only to containers of chemical substances or mixtures. PCB articles and equipment into which the chemical substances or mixtures are processed, are subject to the marking requirements contained elsewhere in this subpart.

(j) As of December 1, 1985, the vault door, machinery room door, fence, hallway, or means of access (other than grates and manhole covers) to a PCB Transformer must be marked with the mark M_L. The mark must be placed so that it can be easily read by firemen fighting a fire involving this equipment.

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 47 FR 37359, Aug. 25, 1982; 50 FR 29201, July 17, 1985; 50 FR 32176, Aug. 9, 1985]

§ 761.45 Marking formats.

The following formats shall be used for marking:

(a) *Large PCB Mark—M_L.* Mark M_L shall be as shown in Figure 1, letters and striping on a white or yellow background and shall be sufficiently durable to equal or exceed the life (including storage for disposal) of the PCB Article, PCB Equipment, or PCB Container. The size of the mark shall be at least 15.25 cm (6 inches) on each side. If the PCB Article or PCB Equipment is too small to accommodate this size, the mark may be reduced in size proportionately down to a minimum of 5 cm (2 inches) on each side.

(b) *Small PCB Mark—M_s.* Mark M_s shall be as shown in Figure 2, letters and striping on a white or yellow background, and shall be sufficiently durable to equal or exceed the life (including storage for disposal) of the PCB Article, PCB Equipment, or PCB Container. The mark shall be a rectangle 2.5 by 5 cm (1 inch by 2 inches). If the PCB Article or PCB Equipment is too small to accommodate this size, the mark may be reduced in size proportionately down to a minimum of 1 by 2 cm (.4 by .8 inches).

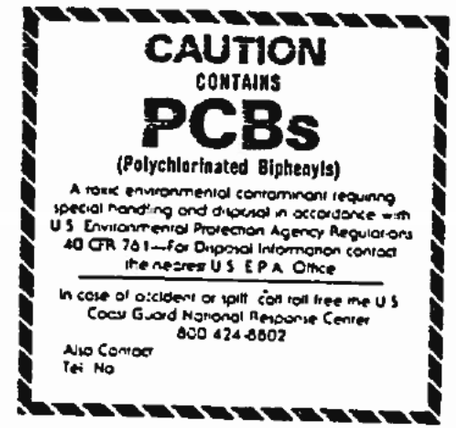

Figure 1

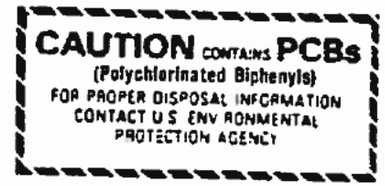

Figure 2

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982]

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Subpart D—Storage and Disposal

NOTE: This subpart does not require removal of PCBs and PCB Items from service and disposal earlier than would normally be the case. However, when PCBs and PCB Items are removed from service and disposed of, disposal must be undertaken in accordance with these regulations. PCBs (including soils and debris) and PCB Items which have been placed in a disposal site are considered to be "in service" for purposes of the applicability of this subpart. This subpart does not require PCBs and PCB Items landfilled prior to February 17, 1978 to be removed for disposal. However, if such PCBs or PCB Items are removed from the disposal site, they must be disposed of in accordance with this subpart. Other subparts are directed to the manufacture, processing, distribution in commerce, and use of PCBs and may result in some cases in disposal at an earlier date than would otherwise occur.

§ 761.60 Disposal requirements.

(a) *PCBs.* (1) Except as provided in paragraphs (a) (2), (3), (4), and (5) of this section, PCBs at concentrations of 50 ppm or greater must be disposed of in an incinerator which complies with § 761.70.

(2) Mineral oil dielectric fluid from PCB-Contaminated Electrical Equipment containing a PCB concentration of 50 ppm or greater, but less than 500 ppm, must be disposed of in one of the following:

(i) In an incinerator that complies with § 761.70;

(ii) In a chemical waste landfill that complies with § 761.75 if information is provided to the owner or operator of the chemical waste landfill that shows that the mineral oil dielectric fluid does not exceed 500 ppm PCB and is not an ignitable waste as described in § 761.75(b) (8) (iii);

(iii) In a high efficiency boiler provided that:

(A) The boiler complies with the following criteria:

(*1*) The boiler is rated at a minimum of 50 million BTU hours;

(*2*) If the boiler uses natural gas or oil as the primary fuel, the carbon monoxide concentration in the stack is 50 ppm or less and the excess oxygen is at least three (3) percent when PCBs are being burned;

(*3*) If the boiler uses coal as the primary fuel, the carbon monoxide concentration in the stack is 100 ppm or less and the excess oxygen is at least three (3) percent when PCBs are being burned;

(*4*) The mineral oil dielectric fluid does not comprise more than ten (10) percent (on a volume basis) of the total fuel feed rate;

(*5*) The mineral oil dielectric fluid is not fed into the boiler unless the boiler is operating at its normal operating temperature (this prohibits feeding these fluids during either start up or shut down operations);

(*6*) The owner or operator of the boiler:

(*i*) Continuously monitors and records the carbon monoxide concentration and excess oxygen percentage in the stack gas while burning mineral oil dielectric fluid; or

(*ii*) If the boiler will burn less than 30,000 gallons of mineral oil dielectric fluid per year, measures and records the carbon monoxide concentration and excess oxygen percentage in the stack gas at regular intervals of no longer than 60 minutes while burning mineral oil dielectric fluid.

(*7*) The primary fuel feed rates, mineral oil dielectric fluid feed rates, and total quantities of both primary fuel and mineral oil dielectric fluid fed to the boiler are measured and recorded at regular intervals of no longer than 15 minutes while burning mineral oil dielectric fluid.

(*8*) The carbon monoxide concentration and the excess oxygen percentage are checked at least once every hour that mineral oil dielectric fluid is burned. If either measurement falls below the levels specified in this rule, the flow of mineral oil dielectric fluid to the boiler shall be stopped immediately.

(B) Thirty days before any person burns mineral oil dielectric fluid in the boiler, the person gives written notice to the EPA Regional Administrator for the EPA Region in which the boiler is located and that the notice contains the following information:

(*1*) The name and address of the owner or operator of the boiler and the address of the boiler;

(*2*) The boiler rating in units of BTU/hour;

(*3*) The carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when mineral oil dielectric fluid is burned; and

(*4*) The type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack.

(C) When burning mineral oil dielectric fluid, the boiler must operate at a level of output no less than the output at which the measurements required under paragraph (b)(2)(iii)(B)(*3*) of this section were taken.

(D) Any person burning mineral oil dielectric fluid in a boiler obtains the following information and retains the information for five years at the boiler location:

(*1*) The data required to be collected under paragraphs (a)(2)(A) (*6*) and (*7*) of this section: and

(*2*) The quantity of mineral oil dielectric fluid burned in the boiler each month;

(iv) In a facility that is approved in accordance with § 761.60(e). For the purpose of burning mineral oil dielectric fluid, an applicant under § 761.60(e) must show that his combustion process destroys PCBs as efficiently as does a high efficiency boiler, as defined in paragraph (b)(2)(iii) of this section, or a § 761.70 approved incinerator.

(3) Liquids, other than mineral oil dielectric fluid, containing a PCB concentration of 50 ppm or greater, but less than 500 ppm, shall be disposed of:

(i) In an incinerator which complies with § 761.70;

(ii) In a chemical waste landfill which complies with § 761.75 if information is provided to the owner or operator of the chemical waste landfill that shows that the waste does not exceed 500 ppm PCB and is not an ignitable waste as described in § 761.75(b)(8)(iii);

(iii) In a high efficiency boiler provided that.

(A) The boiler complies with the following criteria:

(*1*) The boiler is rated at a minimum of 50 million BTU/hour;

(*2*) If the boiler uses natural gas or oil as the primary fuel, the carbon monoxide concentration in the stack is 50 ppm or less and the excess oxygen is at least three (3) percent when PCBs are being burned;

(*3*) If the boiler uses coal as the primary fuel, the carbon monoxide concentration in the stack is 100 ppm or less and the excess oxygen is at least three (3) percent when PCBs are being burned;

(*4*) The waste does not comprise more than ten (10) percent (on a volume basis) of the total fuel feed rate;

(*5*) The waste is not fed into the boiler unless the boiler is operating at its normal operating temperature (this prohibits feeding these fluids during either start up or shut down operations);

(*6*) The owner or operator of the boiler must:

(*i*) Continuously monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack gas while burning waste fluid; or

(*ii*) If the boiler will burn less than 30,000 gallons of waste fluid per year, measure and record the carbon monoxide concentration and excess oxygen percentage in the stack gas at regular intervals of no longer than 60 minutes while burning waste fluid;

(*7*) The primary fuel feed rate, waste fluid feed rate, and total quantities of both primary fuel and waste fluid fed to the boiler must be measured and recorded at regular intervals of no

longer than 15 minutes while burning waste fluid; and

(8) The carbon monoxide concentration and the excess oxygen percentage must be checked at least once every hour that the waste is burned. If either measurement falls below the levels specified in this rule, the flow of waste to the boiler shall be stopped immediately.

(B) Prior to any person burning these liquids in the boiler, approval must be obtained from the EPA Regional Administrator for the EPA Region in which the boiler is located and any persons seeking such approval must submit to the EPA Regional Administrator a request containing at least the following information:

(1) The name and address of the owner or operator of the boiler and the address of the boiler;

(2) The boiler rating in units of BTU/hour;

(3) The carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when low concentration PCB liquid is burned;

(4) The type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack;

(5) The type of waste to be burned (e.g., hydraulic fluid, contaminated fuel oil, heat transfer fluid, etc.);

(6) The concentration of PCBs and of any other chlorinated hydrocarbon in the waste and the results of analyses using the American Society of Testing and Materials (ASTM) methods as follows: carbon and hydrogen content using ASTM D-3178-73 (reapproved 1979), nitrogen content using ASTM E-258-67, sulfur content using ASTM D-2784-80, D-1266-80, or D-129-64, chlorine content using ASTM D-808-81, water and sediment content using either ASTM D-2709-68 or D-1796-83, ash content using D-482-80, calorific value using ASTM D-240-76 (reapproved 1980), carbon residue using either ASTM D-2158-80 or D-524-81, and flash point using ASTM D-93-80.

(7) The quantity of wastes estimated to be burned in a thirty (30) day period;

(8) An explanation of the procedures to be followed to insure that burning the waste will not adversely affect the operation of the boiler such that combustion efficiency will decrease.

(C) On the basis of the information in paragraph (a)(3)(iii)(B) of this section and any other available information, the Regional Administrator may, at his discretion, find that the alternate disposal method will not present an unreasonable risk of injury to health or the environment and approve the use of the boiler;

(D) When burning PCB wastes, the boiler must operate at a level of output no less than the output at which the measurements required under paragraph (a)(3)(iii)(B)(3) of this section were taken; and

(E) Any person burning liquids in boilers approved as provided in paragraph (a)(3)(iii)(C) of this section, must obtain the following information and retain the information for five years at the boiler location:

(1) The data required to be collected in paragraphs (a)(3)(iii)(A) (6) and (7) of this section;

(2) The quantity of low concentration PCB liquid burned in the boiler each month.

(3) The analysis of the waste required by paragraph (a)(3)(iii)(B)(6) of this section taken once a month for each month during which low concentration PCB liquid is burned in the boiler.

(iv) In a facility that is approved in accordance with § 761.60(e). For the purpose of burning liquids, other than mineral oil dielectric fluid, containing 50 ppm or greater PCB, but less than 500 ppm PCB, an applicant under § 761.60(e) must show that his combustion process destroys PCBs as efficiently as does a high efficiency boiler, as defined in § 761.60(a)(2)(iii), or a § 761.70 incinerator.

(4) Any non-liquid PCBs at concentrations of 50 ppm or greater in the form of contaminated soil, rags, or other debris shall be disposed of:

(i) In an incinerator which complies with § 761.70; or

(ii) In a chemical waste landfill which complies with § 761.75.

NOTE: Except as provided in § 761.75(b)(8)(ii), liquid PCBs shall not be processed into non-liquid forms to circumvent the high temperature incineration requirements of § 761.60(a).

(5) All dredged materials and municipal sewage treatment sludges that contain PCBs at concentrations of 50 ppm or greater shall be disposed of:

(i) In an incinerator which complies with § 761.70,

(ii) In a chemical waste landfill which complies with § 761.65; or

(iii) Upon application, using a disposal method to be approved by the Agency's Regional Administrator in the EPA Region in which the PCBs are located. Applications for disposal in a manner other than prescribed in (i) or (ii) of this section must be made in writing to the Regional Administrator. The application must contain information that, based on technical, environmental, and economic considerations, indicates that disposal in an incinerator or chemical waste landfill is not reasonable and appropriate, and that the alternate disposal method will provide adequate protection to health and the environment. The Regional Administrator may request other information that he or she believes to be necessary for evaluation of the alternate disposal method. Any approval by the Regional Administrator shall be in writing and may contain any appropriate limitations on the approved alternate method for disposal. In addition to these regulations, the Regional Administrator shall consider other applicable Agency guidelines, criteria, and regulations to ensure that the discharges of dredged material and sludges that contain PCBs and other contaminants are adequately controlled to protect the environment. The person to whom such approval is issued must comply with all limitations contained in the approval.

(6) When storage is desired prior to disposal, PCBs at concentrations of 50 ppm or greater shall be stored in a facility which complies with § 761.65.

(b) *PCB Articles*—(1) *Transformers.* (i) PCB Transformers shall be disposed of in accordance with either of the following:

(A) In an incinerator that complies with § 761.70; or

(B) In a chemical waste landfill which complies with § 761.75; *Provided*, That the transformer is first drained of all free flowing liquid, filled with solvent, allowed to stand for at least 18 hours, and then drained thoroughly. PCB liquids that are removed shall be disposed of in accordance with paragraph (a) of this section. Solvents may include kerosene, xylene, toluene and other solvents in which PCBs are readily soluble. Precautionary measures should be taken, however, that the solvent flushing procedure is conducted in accordance with applicable safety and health standards as required by Federal or State regulations.

(2) *PCB Capacitors.* (i) The disposal of any capacitor shall comply with all requirements of this subpart unless it is known from label or nameplate information, manufacturer's literature (including documented communications with the manufacturer), or chemical analysis that the capacitor does not contain PCBs.

(ii) Any person may dispose of PCB Small Capacitors as municipal solid waste, unless that person is subject to the requirements of paragraph (b)(2)(iv) of this section.

(iii) Any PCB Large High or Low Voltage Capacitor which contains 500 ppm or greater PCBs, owned by any person, shall be disposed of in accordance with either of the following:

(A) Disposal in an incinerator that complies with § 761.70; or

(B) Until March 1, 1981, disposal in a chemical waste landfill that complies with § 761.75.

(iv) Any PCB Small Capacitor owned by any person who manufactures or at any time manufactured PCB Capacitors or PCB Equipment and acquired the PCB Capacitors in the course of such manufacturing shall be disposed of in accordance with either of the following:

(A) Disposal in an incinerator which complies with § 761.70; or

(B) Until March 1, 1981, disposal in a chemical waste landfill which complies with § 761.75.

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(v) Notwithstanding the restrictions imposed by paragraph (b)(2)(iii)(B) or (b)(2)(iv)(B) of this section, PCB capacitors may be disposed of in PCB chemical waste landfills that comply with § 761.75 subsequent to March 1, 1981, if the Assistant Administrator for Pesticides and Toxic Substances publishes a notice in the FEDERAL REGISTER declaring that those landfills are available for such disposal and explaining the reasons for the extension or reopening. An extension or reopening for disposal of PCB capacitors that is granted under this subsection shall be subject to such terms and conditions as the Assistant Administrator may prescribe and shall be in effect for such period as the Assistant Administrator may prescribe. The Assistant Administrator may permit disposal of PCB capacitors in EPA approved chemical waste landfills after March 1, 1981, if in his opinion,

(A) Adequate incineration capability for PCB capacitors is not available, or

(B) The incineration of PCB capacitors will significantly interfere with the incineration of liquid PCBs, or

(C) There is other good cause shown.

As part of this evaluation, the Assistant Administrator will consider the impact of his action on the incentives to construct or expand PCB incinerators.

(vi) Prior to disposal in a § 761.75 chemical waste landfill, all large PCB capacitors, and all small PCB capacitors described in paragraph (b)(2)(iv) of this section, shall be placed in one of the Department of Transportation specification containers identified in § 761.65(c)(6) or in containers that comply with 49 CFR 178.118 (specification 17H containers). Large PCB capacitors which are too big to fit inside one of these containers shall be placed in a container with strength and durability equivalent to the DOT specification containers. In all cases, interstitial space in the container shall be filled with sufficient absorbent material (such as sawdust or soil) to absorb any liquid PCBs remaining in the capacitors.

(3) *PCB hydraulic machines.* PCB hydraulic machines containing PCBs at concentrations of 50 ppm or greater such as die casting machines may be disposed of as municipal solid waste or salvage provided that the machines are drained of all free-flowing liquid and the liquid is disposed of in accordance with the provisions of paragraph (a) of this section. If the PCB liquid contains 1000 ppm PCB or greater, then the hydraulic machine must be flushed prior to disposal with a solvent containing less than 50 ppm PCB under transformer solvents at paragraph (b)(1)(i)(B) of this section and the solvent disposed of in accordance with paragraph (a) of this section.

(4) *PCB-Contaminated Electrical Equipment.* All PCB-Contaminated Electrical Equipment except capacitors shall be disposed of by draining all free flowing liquid from the electrical equipment and disposing of the liquid in accordance with paragraph (a)(2) or (3) of this section. The disposal of the drained electrical equipment is not regulated by this rule. Capacitors that contain between 50 and 500 ppm PCBs shall be disposed of in an incinerator that complies with § 761.70 or in a chemical waste landfill that complies with § 761.75.

(5) *Other PCB Articles.* (i) PCB articles with concentrations at 50 ppm or greater must be disposed of:

(A) In an incinerator that complies with § 761.70; or

(B) In a chemical waste landfill that complies with § 761.75, provided that all free-flowing liquid PCBs have been thoroughly drained from any articles before the articles are placed in the chemical waste landfill and that the drained liquids are disposed of in an incinerator that complies with § 761.70.

(ii) PCB Articles with a PCB concentration between 50 and 500 ppm must be disposed of by draining all free flowing liquid from the article and disposing of the liquid in accordance with paragraph (a)(2) or (3) of this section. The disposal of the drained article is not regulated by this rule.

(6) *Storage of PCB Articles.* Except for a PCB Article described in paragraph (b)(2)(ii) of this section and hydraulic machines that comply with the municipal solid waste disposal provisions described in paragraph (b)(3) of this section, any PCB Article, with PCB concentrations at 50 ppm or greater, shall be stored in accordance with § 761.65 prior to disposal.

(c) *PCB Containers.* (1) Unless decontaminated in compliance with § 761.79 or as provided in paragraph (c)(2) of this section, a PCB container with PCB concentrations at 50 ppm or greater shall be disposed of:

(i) In an incinerator which complies with § 761.70, or

(ii) In a chemical waste landfill that complies with § 761.75; provided that if there are PCBs in a liquid state, the PCB Container shall first be drained and the PCB liquid disposed of in accordance with paragraph (a) of this section.

(2) Any PCB Container used to contain only PCBs at a concentration less than 500 ppm shall be disposed of as municipal solid wastes; provided that if the PCBs are in a liquid state, the PCB Container shall first be drained and the PCB liquid shall be disposed of in accordance with paragraph (a) of this section.

(3) Prior to disposal, a PCB container with PCB concentrations at 50 ppm or greater shall be stored in a facility which complies with § 761.65.

(d) *Spills.* (1) Spills and other uncontrolled discharges of PCBs at concentrations of 50 ppm or greater constitute the disposal of PCBs.

(2) PCBs resulting from the clean-up and removal of spills, leaks, or other uncontrolled discharges, must be stored and disposed of in accordance with paragraph (a) of this section.

(3) These regulations do not exempt any person from any actions or liability under other statutory authorities, including but not limited to the Clean Water Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980.

(e) Any person who is required to incinerate any PCBs and PCB Items under this subpart and who can demonstrate that an alternative method of destroying PCBs and PCB Items exists and that this alternative method can achieve a level of performance equivalent to § 761.70 incinerators or high efficiency boilers as provided in paragraph (a)(2)(iv) and (a)(3)(iv) of this section, may submit a written request to either the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances for an exemption from the incineration requirements of § 761.70 or § 761.60. Requests for approval of alternate methods that will be operated in more than one region must be submitted to the Assistant Administrator for Pesticides and Toxic Substances except for research and development involving less than 500 pounds of PCB material (see paragraph (i)(2) of this section). Requests for approval of alternate methods that will be operated in only one region must be submitted to the appropriate Regional Administrator. The applicant must show that his method of destroying PCBs will not present an unreasonable risk of injury to health or the environment. On the basis of such information and any available information, the Regional Administrator or Assistant Administrator for Pesticides and Toxic Substances may, in his discretion, approve the use of the alternate method if he finds that the alternate disposal method provides PCB destruction equivalent to disposal in a § 761.70 incinerator or a § 761.60 high efficiency boiler and will not present an unreasonable risk of injury to health or the environment. Any approval must be stated in writing and may contain such conditions and provisions as the Regional Administrator or Assistant Administrator for Pesticides and Toxic Substances deems appropriate. The person to whom such waiver is issued must comply with all limitations contained in such determination.

(f)(1) Each operator of a chemical waste landfill, incinerator, or alternative to incineration approved under paragraph (e) of this section shall give the following written notices to the state and local governments within whose jurisdiction the disposal facility is located:

(i) Notice at least thirty (30) days before a facility is first used for disposal of PCBs required by these regulations; and

(ii) At the request of any state or local government, annual notice of the quantities and general description of PCBs disposed of during the year. This annual notice shall be given no

more than thirty (30) days after the end of the year covered.

(iii) The Regional Administrator may reduce the notice period required by paragraph (f)(1)(i) of this section from thirty days to a period of no less than five days in order to expedite interim approval of the chemical waste landfill located in Sedgwick County, Kansas.

(2) Any person who disposes of PCBs under a paragraph (a)(5)(iii) of this section incineration or chemical waste landfilling waiver shall give written notice at least thirty (30) days prior to conducting the disposal activities to the state and local governments within whose jurisdiction the disposal is to take place.

(g) *Testing procedures.* (1) Owners or users of mineral oil dielectric fluid electrical equipment may use the following procedures to determine the concentration of PCBs in the dielectric fluid:

(i) Dielectric fluid removed from mineral oil dielectric fluid electrical equipment may be collected in a common container, provided that no other chemical substances or mixtures are added to the container. This common container option does not permit dilution of the collected oil. Mineral oil that is assumed or known to contain at least 50 ppm PCBs must not be mixed with mineral oil that is known or assumed to contain less than 50 ppm PCBs to reduce the concentration of PCBs in the common container. If dielectric fluid from untested, oil-filled circuit breakers, reclosers, or cable is collected in a common container with dielectric fluid from other oil-filled electrical equipment, the entire contents of the container must be treated as PCBs at a concentration of at least 50 ppm, unless all of the fluid from the other oil-filled electrical equipment has been tested and shown to contain less than 50 ppm PCBs.

(ii) For purposes of complying with the marking and disposal requirements, representative samples may be taken from either the common containers or the individual electrical equipment to determine the PCB concentration, except that if any PCBs at a concentration of 500 ppm or greater have been added to the container or equipment then the total container contents must be considered as having a PCB concentration of 500 ppm or greater for purposes of complying with the disposal requirements of this subpart. For purposes of this subparagraph, representative samples of mineral oil dielectric fluid are either samples taken in accordance with American Society of Testing and Materials method D-923 or samples taken from a container that has been thoroughly mixed in a manner such that any PCBs in the container are uniformly distributed throughout the liquid in the container.

(2) Owners or users of waste oil may use the following procedures to determine the PCB concentration of waste oil:

(i) Waste oil from more than one source may be collected in a common container, provided that no other chemical substances or mixtures, such as non-waste oils, are added to the container.

(ii) For purposes of complying with the marking and disposal requirements, representative samples may be taken from either the common containers or the individual electrical equipment to determine the PCB concentration. *Except,* That if any PCBs at a concentration of 500 ppm or greater have been added to the container or equipment then the total container contents must be considered as having a PCB concentration of 500 ppm or greater for purposes of complying with the disposal requirements of this Subpart. For purposes of this paragraph, representative samples of mineral oil dielectric fluid are either samples taken in accordance with American Society of Testing and Materials method D-923-81 or samples taken from a container that has been thoroughly mixed in a manner such that any PCBs in the container are uniformly distributed throughout the liquid in the container.

(h) Requirements for export and import of PCBs for purposes of disposal and PCB Items for purposes of disposal are found in § 761.20.

(i) *Approval authority for disposal methods.* (1) The officials (the Assistant Administrator for Pesticides and Toxic Substances and the Regional Administrators) designated in §§ 761.60 (e) and 761.70 (a) and (b) to receive requests for approval of PCB disposal activities are the primary approval authorities for these activities. Notwithstanding, the Assistant Administrator for Pesticides and Toxic Substances may, at his/her discretion, assign the authority to review and approve any aspect of a disposal system to the Office of Pesticides and Toxic Substances or to a Regional Administrator.

(2) Except for activity authorized under § 761.30(j), research and development (R and D) into PCB disposal methods using a total of less than 500 pounds of PCB material (regardless of PCB concentration) will be reviewed and approved by the appropriate EPA Regional Administrator and research and development using 500 pounds or more of PCB material (regardless of PCB concentration) will be reviewed by the approval authorities set out in §§ 761.60(e) and 761.70 (a) and (b).

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979, as amended at 44 FR 54297, Sept. 19, 1979; 45 FR 20475, Mar. 28, 1980. Redesignated at 47 FR 19527, May 6, 1982, and amended at 47 FR 37359, Aug. 25, 1982; 48 FR 5730, Feb. 8, 1983; 48 FR 13185, Mar. 30, 1983; 48 FR 15125, Apr. 7, 1983; 49 FR 28191, July 10, 1984; 49 FR 36648, Sept. 19, 1984]

§ 761.65 Storage for disposal.

This section applies to the storage for disposal of PCBs at concentrations of 50 ppm or greater and PCB Items with PCB concentrations of 50 ppm or greater.

(a) Any PCB Article or PCB Container stored for disposal before January 1, 1983, shall be removed from storage and disposed of as required by this part before January 1, 1984. Any PCB Article or PCB Container stored for disposal after January 1, 1983, shall be removed from storage and disposed of as required by Subpart D of this part within one year from the date when it was first placed into storage.

(b) Except as provided in paragraph (c) of this section, after July 1, 1978, owners or operators of any facilities used for the storage of PCBs and PCB Items designated for disposal shall comply with the following requirements:

(1) The facilities shall meet the following criteria:

(i) Adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB Items;

(ii) An adequate floor which has continuous curbing with a minimum six inch high curb. The floor and curbing must provide a containment volume equal to at least two times the internal volume of the largest PCB Article or PCB Container stored therein or 25 percent of the total internal volume of all PCB Articles or PCB Containers stored therein, whichever is greater;

(iii) No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area;

(iv) Floors and curbing constructed of continuous smooth and impervious materials, such as Portland cement concrete or steel, to prevent or minimize penetration of PCBs; and

(v) Not located at a site that is below the 100-year flood water elevation.

(c)(1) The following PCB Items may be stored temporarily in an area that does not comply with the requirements of paragraph (b) of this section for up to thirty days from the date of their removal from service, provided that a notation is attached to the PCB Item or a PCB Container (containing the item) indicating the date the item was removed from service:

(i) Non-leaking PCB Articles and PCB Equipment;

(ii) Leaking PCB Articles and PCB Equipment if the PCB Items are placed in a non-leaking PCB Container that contains sufficient sorbent materials to absorb any liquid PCBs remaining in the PCB Items;

(iii) PCB Containers containing non-liquid PCBs such as contaminated soil, rags, and debris; and

(iv) PCB Containers containing liquid PCBs at a concentration between 50 and 500 ppm, provided a Spill Prevention, Control and Countermeasure Plan has been prepared for the temporary storage area in accordance with 40 CFR Part 112. In addition, each container must bear a notation

that indicates that the liquids in the drum do not exceed 500 ppm PCB.

(2) Non-leaking and structurally undamaged PCB Large High Voltage Capacitors and PCB-Contaminated Electrical Equipment that have not been drained of free flowing dielectric fluid may be stored on pallets next to a storage facility that meets the requirements of paragraph (b) of this section. PCB-Contaminated Electrical Equipment that has been drained of free flowing dielectric fluid is not subject to the storage provisions of § 761.65. Storage under this subparagraph will be permitted only when the storage facility has immediately available unoccupied storage space equal to 10 percent of the volume of capacitors and equipment stored outside the facility. The capacitors and equipment temporarily stored outside the facility shall be checked for leaks weekly.

(3) Any storage area subject to the requirements of paragraph (b) or paragraph (c)(1) of this section shall be marked as required in Subpart C—§ 761.40(a)(10).

(4) No item of movable equipment that is used for handling PCBs and PCB Items in the storage facilities and that comes in direct contact with PCBs shall be removed from the storage facility area unless it has been decontaminated as specified in § 761.79.

(5) All PCB Articles and PCB Containers in storage shall be checked for leaks at least once every 30 days. Any leaking PCB Articles and PCB Containers and their contents shall be transferred immediately to properly marked non-leaking containers. Any spilled or leaked materials shall be immediately cleaned up, using sorbents or other adequate means, and the PCB-contaminated materials and residues shall be disposed of in accordance with § 761.60(a)(4).

(6) Except as provided in paragraph (c)(7) of this section, any container used for the storage of liquid PCBs shall comply with the Shipping Container Specification of the Department of Transportation (DOT), 49 CFR 178.80 (Specification 5 container without removable head), 178.82 (Specification 5B container without removable head), 178.102 (Specification 6D overpack with Specification 2S(§ 178.35) or 2SL(§ 178.35a) polyethylene containers) or 178.116 (Specification 17E container). Any container used for the storage of non-liquid PCBs shall comply with the specifications of 49 CFR 178.80 (Specification 5 container), 178.82 (Specification 5B container) or 178.115 (Specification 17C container). As an alternate, containers larger than those specified in DOT Specifications 5, 5B, or 17C may be used for non-liquid PCBs if the containers are designed and constructed in a manner that will provide as much protection against leaking and exposure to the environment as the DOT Specification containers, and are of the same relative strength and durability as the DOT Specification containers.

(7) Storage containers for liquid PCBs can be larger than the containers specified in paragraph (c)(6) of this section provided that:

(i) The containers are designed, constructed, and operated in compliance with Occupational Safety and Health Standards, 29 CFR 1910.106, *Flammable and combustible liquids.* Before using these containers for storing PCBs, the design of the containers must be reviewed to determine the effect on the structural safety of the containers that will result from placing liquids with the specific gravity of PCBs into the containers (see 29 CFR 1910.106(b)(1)(f)).

(ii) The owners or operators of any facility using containers described in paragraph (c)(7)(i) of this section shall prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan as described in Part 112 of this title. In complying with 40 CFR Part 112, the owner or operator shall read "oil(s)" as "PCB(s)" whenever it appears. The exemptions for storage capacity, 40 CFR 112.1(d)(2), and the amendment of SPCC plans by the Regional Administrator, 40 CFR 112.4, shall not apply unless some fraction of the liquids stored in the container are oils as defined by section 311 of the Clean Water Act.

(8) PCB Articles and PCB Containers shall be dated on the article or container when they are placed in storage. The storage shall be managed so that the PCB Articles and PCB

Containers can be located by the date they entered storage. Storage containers provided in paragraph (c)(7) of this section shall have a record that includes for each batch of PCBs the quantity of the batch and date the batch was added to the container. The record shall also include the date, quantity, and disposition of any batch of PCBs removed from the container.

(9) Owners or operators of storage facilities shall establish and maintain records as provided in § 761.80.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 47 FR 37359, Aug. 8, 1982; 49 FR 28191, July 10, 1984]

§ 761.70 Incineration.

This section applies to facilities used to incinerate PCBs required to be incinerated by this part.

(a) *Liquid PCBs.* An incinerator used for incinerating PCBs shall be approved by an EPA Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances pursuant to paragraph (d) of this section. Requests for approval of incinerators to be used in more than one region must be submitted to the Assistant Administrator for Pesticides and Toxic Substances, except for research and development involving less than 500 pounds of PCB material (see § 761.60(1)(2)). Requests for approval of incinerators to be used in only one region must be submitted to the appropriate Regional Administrator. The incinerator shall meet all of the requirements specified in paragraph (a)(1) through (9) of this section, unless a waiver from these requirements is obtained pursuant to paragraph (d)(5) of this section. In addition, the incinerator shall meet any other requirements which may be prescribed pursuant to paragraph (d)(4) of this section.

(1) Combustion criteria shall be either of the following:

(i) Maintenance of the introduced liquids for a 2-second dwell time at 1200°C(±100°C) and 3 percent excess oxygen in the stack gas; or

(ii) Maintenance of the introduced liquids for a 1½ second dwell time at 1600°C(±100°C) and 2 percent excess oxygen in the stack gas.

(2) Combustion efficiency shall be at least 99.9 percent computed as follows:

Combustion efficiency =
$C_{CO_2}/C_{CO_2} + C_{CO} \times 100$

where

C_{CO_2} = Concentration of carbon dioxide.
C_{CO} = Concentration of carbon monoxide.

(3) The rate and quantity of PCBs which are fed to the combustion system shall be measured and recorded at regular intervals of no longer than 15 minutes.

(4) The temperatures of the incineration process shall be continuously measured and recorded. The combustion temperature of the incineration process shall be based on either direct (pyrometer) or indirect (wall thermocouple-pyrometer correlation) temperature readings.

(5) The flow of PCBs to the incinerator shall stop automatically whenever the combustion temperature drops below the temperatures specified in paragraph (a)(1) of this section.

(6) Monitoring of stack emission products shall be conducted:

(i) When an incinerator is first used for the disposal of PCBs under the provisions of this regulation;

(ii) When an incinerator is first used for the disposal of PCBs after the incinerator has been modified in a manner which may affect the characteristics of the stack emission products; and

(iii) At a minimum such monitoring shall be conducted for the following parameters: (a) O_2; (b) CO; (c) CO_2; (d) Oxides of Nitrogen (NO_x); (e) Hydrochloric Acid (HCl); (f) Total Chlorinated Organic Content (RCl); (g) PCBs; and (h) Total Particulate Matter.

(7) At a minimum monitoring and recording of combustion products and incineration operations shall be conducted for the following parameters whenever the incinerator is incinerating PCBs: (i) O_2; (ii) CO; and (iii) CO_2. The monitoring for O_2 and CO shall be continuous. The monitoring for CO_2 shall be periodic, at a frequency specified by the Regional Administrator or Assistant Administrator for Pesticides and Toxic Substances.

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(8) The flow of PCBs to the incinerator shall stop automatically when any one or more of the following conditions occur, unless a contingency plan is submitted by the incinerator owner or operator and approved by the Regional Administrator or Assistant Administrator for Pesticides and Toxic Substances. The contingency plan indicates what alternative measures the incinerator owner or operator would take if any of the following conditions occur:

(i) Failure of monitoring operations specified in paragraph (a)(7) of this section;

(ii) Failure of the PCB rate and quantity measuring and recording equipment specified in paragraph (a)(3) of this section; or

(iii) Excess oxygen falls below the percentage specified in paragraph (a)(1) of this section.

(9) Water scrubbers shall be used for HCl control during PCB incineration and shall meet any performance requirements specified by the appropriate EPA Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances. Scrubber effluent shall be monitored and shall comply with applicable effluent or pretreatment standards, and any other State and Federal laws and regulations. An alternate method of HCl control may be used if the alternate method has been approved by the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances. (The HCl neutralizing capability of cement kilns is considered to be an alternate method.)

(b) *Nonliquid PCBs.* An incinerator used for incinerating nonliquid PCBs, PCB Articles, PCB Equipment, or PCB Containers shall be approved by the appropriate EPA Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances pursuant to paragraph (d) of this section. Requests for approval of incinerators to be used in more than one region must be submitted to the Assistant Administrator for Pesticides and Toxic Substances, except for research and development involving less than 500 pounds of PCB material (see § 761.60(i)(2)). Requests for approval of incinerators to be used in only one region must be submitted to the appropriate Regional Administrator. The incinerator shall meet all of the requirements specified in paragraphs (b)(1) and (2) of this section unless a waiver from these requirements is obtained pursuant to paragraph (d)(5) of this section. In addition, the incinerator shall meet any other requirements that may be prescribed pursuant to paragraph (d)(4) of this section.

(1) The mass air emissions from the incinerator shall be no greater than 0.001g PCB/kg of the PCB introduced into the incinerator.

(2) The incinerator shall comply with the provisions of paragraphs (a)(2), (3), (4), (6), (7), (8)(i) and (ii), and (9) of this section.

(c) *Maintenance of data and records.* All data and records required by this section shall be maintained in accordance with § 761.80, Records and monitoring.

(d) *Approval of incinerators.* Prior to the incineration of PCBs and PCB Items the owner or operator of an incinerator shall receive the written approval of the Agency Regional Administrator for the region in which the incinerator is located, or the Assistant Administrator for Pesticides and Toxic Substances. Approval from the Assistant Administrator for Pesticides and Toxic Substances may be effective in all ten EPA regions. Such approval shall be obtained in the following manner:

(1) *Application.* The owner or operator shall submit to the Regional Administrator or the Assistant Administrator an application which contains:

(i) The location of the incinerator;

(ii) A detailed description of the incinerator including general site plans and design drawings of the incinerator;

(iii) Engineering reports or other information on the anticipated performance of the incinerator;

(iv) Sampling and monitoring equipment and facilities available;

(v) Waste volumes expected to be incinerated;

(vi) Any local, State, or Federal permits or approvals; and

(vii) Schedules and plans for complying with the approval requirements of this regulation.

(2) *Trial burn.* (i) Following receipt of the application described in paragraph (d)(1) of this section, the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances shall determine if a trial burn is required and notify the person who submitted the report whether a trial burn of PCBs and PCB Items must be conducted. The Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances may require the submission of any other information that the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances finds to be reasonably necessary to determine the need for a trial burn. Such other information shall be restricted to the types of information required in paragraphs (d)(1) (i) through (vii) of this section.

(ii) If the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances determines that a trial burn must be held, the person who submitted the report described in paragraph (d)(1) of this section shall submit to the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances a detailed plan for conducting and monitoring the trial burn. At a minimum, the plan must include:

(A) Date trial burn is to be conducted;

(B) Quantity and type of PCBs and PCB Items to be incinerated;

(C) Parameters to be monitored and location of sampling points;

(D) Sampling frequency and methods and schedules for sample analyses; and

(E) Name, address, and qualifications of persons who will review analytical results and other pertinent data, and who will perform a technical evaluation of the effectiveness of the trial burn.

(iii) Following receipt of the plan described in paragraph (d)(2)(ii) of this section, the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances will approve the plan, require additions or modifications to the plan, or disapprove the plan. If the plan is disapproved, the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances will notify the person who submitted the plan of such disapproval, together with the reasons why it is disapproved. That person may thereafter submit a new plan in accordance with paragraph (d)(2)(ii) of this section. If the plan is approved (with any additions or modifications which the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances may prescribe), the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances will notify the person who submitted the plan of the approval. Thereafter, the trial burn shall take place at a date and time to be agreed upon between the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances and the person who submitted the plan.

(3) *Other information.* In addition to the information contained in the report and plan described in paragraphs (d)(1) and (2) of this section, the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances may require the owner or operator to submit any other information that the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances finds to be reasonably necessary to determine whether an incinerator shall be approved.

NOTE: The Regional Administrator will have available for review and inspection an Agency manual containing information on sampling methods and analytical procedures for the parameters required in § 761.70(a)(3), (4), (6), and (7) plus any other parameters he/she may determine to be appropriate. Owners or operators are encouraged to review this manual prior to submitting any report required in § 761.70.

(4) *Contents of approval.* (i) Except as provided in paragraph (d)(5) of this section, the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances may not approve an incinerator for the disposal of PCBs and PCB Items unless he finds that the incinerator meets all of the requirements of paragraphs (a) and/or (b) of this section.

(ii) In addition to the requirements of paragraphs (a) and/or (b) of this section, the Regional Administrator or

the Assistant Administrator for Pesticides and Toxic Substances may include in an approval any other requirements that the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances finds are necessary to ensure that operation of the incinerator does not present an unreasonable risk of injury to health or the environment from PCBs. Such requirements may include a fixed period of time for which the approval is valid.

(5) *Waivers.* An owner or operator of the incinerator may submit evidence to the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances that operation of the incinerator will not present an unreasonable risk of injury to health or the enviroment from PCBs, when one or more of the requirements of paragraphs (a) and/or (b) of this section are not met. On the basis of such evidence and any other available information, the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances may in his/her discretion find that any requirement of paragraphs (a) and (b) of this section is not necessary to protect against such a risk, and may waive the requirements in any approval for that incinerator. Any finding and waiver under this paragraph must be stated in writing and included as part of the approval.

(6) *Persons approved.* An approval will designate the persons who own and who are authorized to operate the incinerator, and will apply only to such persons, except as provided in paragraph (d)(8) of this section.

(7) *Final approval.* Approval of an incinerator will be in writing and signed by the Regional Administrator or the Assistant Administrator for Pesticides and Toxic Substances. The approval will state all requirements applicable to the approved incinerator.

(8) *Transfer of property.* Any person who owns or operates an approved incinerator must notify EPA at least 30 days before transferring ownership in the incinerator or the property it stands upon, or transferring the right to operate the incinerator. The transferor must also submit to EPA, at least 30 days before such transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's EPA incinerator approval. Within 30 days of receiving such notification and affidavit, EPA will issue an amended approval substituting the transferee's name for the transferor's name, or EPA may require the transferee to apply for a new incinerator approval. In the latter case, the transferee must abide by the transferor's EPA approval until EPA issues the new approval to the transferee.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31512, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 48 FR 13185, Mar. 30, 1983; 49 FR 28191, July 10, 1984]

§ 761.75 Chemical waste landfills.

This section applies to facilities used to dispose of PCBs in accordance with the part.

(a) *General.* A chemical waste landfill used for the disposal of PCBs and PCB Items shall be approved by the Agency Regional Administrator pursuant to paragraph (c) of this section. The landfill shall meet all of the requirements specified in paragraph (b) of this section, unless a waiver from these requirements is obtained pursuant to paragraph (c)(4) of this section. In addition, the landfill shall meet any other requirements that may be prescribed pursuant to paragraph (c)(3) of this section.

(b) *Technical requirements.* Requirements for chemical waste landfills used for the disposal of PCBs and PCB Items are as follows:

(1) *Soils.* The landfill site shall be located in thick, relatively impermeable formations such as large-area clay pans. Where this is not possible, the soil shall have a high clay and silt content with the following parameters:

(i) In-place soil thickness, 4 feet or compacted soil liner thickness, 3 feet;

(ii) Permeability (cm/sec), equal to or less than 1×10^{-7};

(iii) Percent soil passing No. 200 Sieve, >30;

(iv) Liquid Limit, >30; and

(v) Plasticity Index >15.

(2) *Synthetic membrane liners.* Synthetic membrane liners shall be used when, in the judgment of the Regional Administrator, the hydrologic or geologic conditions at the landfill require such a liner in order to provide at least a permeability equivalent to the soils in paragraph (b)(1) of this section. Whenever a synthetic liner is used at a landfill site, special precautions shall be taken to insure that its integrity is maintained and that it is chemically compatible with PCBs. Adequate soil underlining and soil cover shall be provided to prevent excessive stress on the liner and to prevent rupture of the liner. The liner must have a minimum thickness of 30 mils.

(3) *Hydrologic conditions.* The bottom of the landfill shall be above the historical high groundwater table as provided below. Floodplains, shorelands, and groundwater recharge areas shall be avoided. There shall be no hydraulic connection between the site and standing or flowing surface water. The site shall have monitoring wells and leachate collection. The bottom of the landfill liner system or natural in-place soil barrier shall be at least fifty feet from the historical high water table.

(4) *Flood protection.* (i) If the landfill site is below the 100-year floodwater elevation, the operator shall provide surface water diversion dikes around the perimeter of the landfill site with a minimum height equal to two feet above the 100-year floodwater elevation.

(ii) If the landfill site is above the 100-year floodwater elevation, the operators shall provide diversion structures capable of diverting all of the surface water runoff from a 24-hour, 25-year storm.

(5) *Topography.* The landfill site shall be located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping.

(6) *Monitoring systems*—(i) *Water sampling.* (A) For all sites receiving PCBs, the ground and surface water from the disposal site area shall be sampled prior to commencing operations under an approval provided in paragraph (c) of this section for use as baseline data.

(B) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled at least monthly when the landfill is being used for disposal operations.

(C) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled for a time period specified by the Regional Administrator on a frequency of no less than once every six months after final closure of the disposal area.

(ii) *Groundwater monitor wells.* (A) If underlying earth materials are homogenous, impermeable, and uniformly sloping in one direction, only three sampling points shall be necessary. These three points shall be equally spaced on a line through the center of the disposal area and extending from the area of highest water table elevation to the area of the lowest water table elevation on the property.

(B) All monitor wells shall be cased and the annular space between the monitor zone (zone of saturation) and the surface shall be completely backfilled with Portland cement or an equivalent material and plugged with Portland cement to effectively prevent percolation of surface water into the well bore. The well opening at the surface shall have a removable cap to provide access and to prevent entrance of rainfall or stormwater runoff. The well shall be pumped to remove the volume of liquid initially contained in the well before obtaining a sample for analysis. The discharge shall be treated to meet applicable State or Federal discharge standards or recycled to the chemical waste landfill.

(iii) *Water analysis.* As a minimum, all samples shall be analyzed for the following parameters, and all data and records of the sampling and analysis shall be maintained as required in § 761.80(d)(1). Sampling methods and analytical procedures for these parameters shall comply with those specified in 40 CFR Part 136 as amended in 41 FR 52779 on December 1, 1976.

(A) PCBs.

(B) pH.

(C) Specific conductance.

(D) Chlorinated organics.

(7) *Leachate collection.* A leachate collection monitoring system shall be installed above the chemical waste landfill. Leachate collection systems shall be monitored monthly for quantity and physicochemical characteristics of leachate produced. The leachate should be either treated to acceptable limits for discharge in accordance with a State or Federal permit or disposed of by another State or Federally approved method. Water analysis shall be conducted as provided in paragraph (b)(6)(iii) of this section. Acceptable leachate monitoring/collection systems shall be any of the following designs, unless a waiver is obtained pursuant to paragraph (c)(4) of this section.

(i) *Simple leachate collection.* This system consists of a gravity flow drainfield installed above the waste disposal facility liner. This design is recommended for use when semi-solid or leachable solid wastes are placed in a lined pit excavated into a relatively thick, unsaturated, homogenous layer of low permeability soil.

(ii) *Compound leachate collection.* This system consists of a gravity flow drainfield installed above the waste disposal facility liner and above a secondary installed liner. This design is recommended for use when semi-liquid or leachable solid wastes are placed in a lined pit excavated into relatively permeable soil.

(iii) *Suction lysimeters.* This system consists of a network of porous ceramic cups connected by hoses/tubing to a vacuum pump. The porous ceramic cups or suction lysimeters are installed along the sides and under the bottom of the waste disposal facility liner. This type of system works best when installed in a relatively permeable unsaturated soil immediately adjacent to the bottom and/or sides of the disposal facility.

(8) *Chemical waste landfill operations.* (i) PCBs and PCB Items shall be placed in a landfill in a manner that will prevent damage to containers or articles. Other wastes placed in the landfill that are not chemically compatible with PCBs and PCB Items including organic solvents shall be segregated from the PCBs throughout the waste handling and disposal process.

(ii) An operation plan shall be developed and submitted to the Regional Administrator for approval as required in paragraph (c) of this section. This plan shall include detailed explanations of the procedures to be used for recordkeeping, surface water handling procedures, excavation and backfilling, waste segregation burial coordinates, vehicle and equipment movement, use of roadways, leachate collection systems, sampling and monitoring procedures, monitoring wells, environmental emergency contingency plans, and security measures to protect against vandalism and unauthorized waste placements. EPA guidelines entitled "Thermal Processing and Land Disposal of Solid Waste" (39 FR 29337, Aug. 14, 1974) are a useful reference in preparation of this plan. If the facility is to be used to dispose of liquid wastes containing between 50 ppm and 500 ppm PCB, the operations plan must include procedures to determine that liquid PCBs to be disposed of at the landfill do not exceed 500 ppm PCB and measures to prevent the migration of PCBs from the landfill. Bulk liquids not exceeding 500 ppm PCBs may be disposed of provided such waste is pretreated and/or stabilized (e.g., chemically fixed, evaporated, mixed with dry inert absorbant) to reduce its liquid content or increase its solid content so that a non-flowing consistency is achieved to eliminate the presence of free liquids prior to final disposal in a landfill. PCB Container of liquid PCBs with a concentration between 50 and 500 ppm PCB may be disposed of if each container is surrounded by an amount of inert sorbant material capable of absorbing all of the liquid contents of the container.

(iii) Ignitable wastes shall not be disposed of in chemical waste landfills. Liquid ignitable wastes are wastes that have a flash point less than 60 degrees C (140 degrees F) as determined by the following method or an equivalent method: Flash point of liquids shall be determined by a Pensky-Martens Closed Cup Tester, using the protocol specified in ASTM Standard D-93-80, or the Setaflash Closed Tester using the protocol specified in ASTM Standard D-3278-78.

(iv) Records shall be maintained for all PCB disposal operations and shall include information on the PCB concentration in liquid wastes and the three dimensional burial coordinates for PCBs and PCB Items. Additional records shall be developed and maintained as required in § 761.80.

(9) *Supporting facilities.* (i) A six foot woven mesh fence, wall, or similar device shall be placed around the site to prevent unauthorized persons and animals from entering.

(ii) Roads shall be maintained to and within the site which are adequate to support the operation and maintenance of the site without causing safety or nuisance problems or hazardous conditions.

(iii) The site shall be operated and maintained in a manner to prevent safety problems or hazardous conditions resulting from spilled liquids and windblown materials.

(c) *Approval of chemical waste landfills.* Prior to the disposal of any PCBs and PCB Items in a chemical waste landfill, the owner or operator of the landfill shall receive written approval of the Agency Regional Administrator for the Region in which the landfill is located. The approval shall be obtained in the following manner:

(1) *Initial report.* The owner or operator shall submit to the Regional Administrator an initial report which contains:

(i) The location of the landfill;

(ii) A detailed description of the landfill including general site plans and design drawings;

(iii) An engineering report describing the manner in which the landfill complies with the requirements for chemical waste landfills specified in paragraph (b) of this section;

(iv) Sampling and monitoring equipment and facilities available;

(v) Expected waste volumes of PCBs;

(vi) General description of waste materials other than PCBs that are expected to be disposed of in the landfill;

(vii) Landfill operations plan as required in paragraph (b) of this section;

(viii) Any local, State, or Federal permits or approvals; and

(ix) Any schedules or plans for complying with the approval requirements of these regulations.

(2) *Other information.* In addition to the information contained in the report described in paragraph (c)(1) of this section, the Regional Administrator may require the owner or operator to submit any other information that the Regional Administrator finds to be reasonably necessary to determine whether a chemical waste landfill should be approved. Such other information shall be restricted to the types of information required in paragraphs (c)(1) (i) through (ix) of this section.

(3) *Contents of approval.* (i) Except as provided in paragraph (c)(4) of this section the Regional Administrator may not approve a chemical waste landfill for the disposal of PCBs and PCB Items, unless he finds that the landfill meets all of the requirements of paragraph (b) of this section.

(ii) In addition to the requirements of paragraph (b) of this section, the Regional Administrator may include in an approval any other requirements or provisions that the Regional Administrator finds are necessary to ensure that operation of the chemical waste landfill does not present an unreasonable risk of injury to health or the environment from PCBs. Such provisions may include a fixed period of time for which the approval is valid.

The approval may also include a stipulation that the operator of the chemical waste landfill report to the Regional Administrator any instance when PCBs are detectable during monitoring activities conducted pursuant to paragraph (b)(6) of this section.

(4) *Waivers.* An owner or operator of a chemical waste landfill may submit evidence to the Regional Administrator that operation of the landfill will not present an unreasonable risk of injury to health or the environment from PCBs when one or more of the requirements of paragraph (b) of this section are not met. On the basis of such evidence and any other available information, the Regional Administrator may in his discretion find that one or more of the requirements of paragraph (b) of this section is not necessary to protect against such a risk and

may waive the requirements in any approval for that landfill. Any finding and waiver under this paragraph will be stated in writing and included as part of the approval.

(5) *Persons approved.* Any approval will designate the persons who own and who are authorized to operate the chemical waste landfill, and will apply only to such persons, except as provided by paragraph (c)(7) of this section.

(6) *Final approval.* Approval of a chemical waste landfill will be in writing and will be signed by the Regional Administrator. The approval will state all requirements applicable to the approved landfill.

(7) *Transfer of property.* Any person who owns or operates an approved chemical waste landfill must notify EPA at least 30 days before transferring ownership in the property or transferring the right to conduct the chemical waste landfill operation. The transferor must also submit to EPA, at least 30 days before such transfer, a notarized affidavit signed by the transferee which states that the transferee will abide by the transferor's EPA chemical waste landfill approval. Within 30 days of receiving such notification and affidavit, EPA will issue an amended approval substituting the transferee's name for the transferor's name, or EPA may require the transferee to apply for a new chemical waste landfill approval. In the latter case, the transferee must abide by the transferor's EPA approval until EPA issues the new approval to the transferee.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and amended at 48 FR 5730, Feb. 8, 1983; 49 FR 28191, July 10, 1984]

§ 761.79 Decontamination.

(a) Any PCB Container to be decontaminated shall be decontaminated by flushing the internal surfaces of the container three times with a solvent containing less than 50 ppm PCB. The solubility of PCBs in the solvent must be five percent or more by weight. Each rinse shall use a volume of the normal diluent equal to approximately ten (10) percent of the PCB Container capacity. The solvent may be reused for decontamination until it contains 50 ppm PCB. The solvent shall then be disposed of as a PCB in accordance with § 761.60(a). Non-liquid PCBs resulting from the decontamination procedures shall be disposed of in accordance with the provisions of § 761.60(a)(4).

(b) Movable equipment used in storage areas shall be decontaminated by swabbing surfaces that have contacted PCBs with a solvent meeting the criteria of paragraph (a) of this section.

NOTE: Precautionary measures should be taken to ensure that the solvent meets safety and health standards as required by applicable Federal regulations.

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982]

Subpart E—Exemptions

§ 761.80 Manufacturing, processing, and distribution in commerce exemptions.

(a) The Administrator grants the following petitioners an exemption for one year to distribute in commerce PCB small capacitors for purposes of repair:

(1) Advance Transformer Co., Chicago, IL 60618 (PDE-4).

(2) Air Conditioning Contractors of America, Washington, DC 20036 (PDE-7).

(3) Association of Home Appliance Manufacturers, Chicago, IL 60606 (PDE-26.2).

(4) B & B Motor & Control Corp., New York, NY 10012 (PDE-30).

(5) Complete-Reading Electric Co., Hillside, IL 60162 (PDE-48).

(6) Dunham-Bush, Inc., Harrisonburg, VA 22801 (PDE-71).

(7) Emerson Quiet Kool Corp., Woodbridge, NJ 07095 (PDE-84).

(8) Harry Alter Co., Chicago, IL 60609 (PDE-111).

(9) Minnesota Mining and Manufacturing Co., St. Paul, MN 55133 (PDE-157.1).

(10) Motors & Armatures, Inc., Hauppauge, NY 11788 (PDE-161).

(11) National Association of Electrical Distributors, Stamford, CT 06901 (PDE-163).

(12) National Capacitor Corp., Garden Grove, CA 92641 (PDE-165).

(13) Service Supply Co., Phoenix, AZ 85013 (PDE-237).

(14) Wedzeb Enterprises, Inc., Lebanon, IN 46052 (PDE-297).

(15) Westinghouse Electric Corp., Pittsburgh, PA 15222 (PDE-298).

(b) The Administrator grants the following petitioners an exemption for one year to distribute in commerce PCB equipment containing PCB small capacitors:

(1) Advance Transformer Co., Chicago, IL 60618 (PDE-4).

(2) Coleman Co., Inc., Wichita, KS 67201 (PDE-45.1).

(3) Donn Corp., Westlake, OH 44145 (PDE-63).

(4) Dunham-Bush, Inc., Harrisonburg, VA 22801 (PDE-71).

(5) Emerson Quiet Kool Corp., Woodbridge, NJ 07095 (PDE-84).

(6) Friedrich Air Conditioning & Refrigeration Co., San Antonio, TX 78295 (PDE-93).

(7) Gould, Inc., Electric Moter Division, St. Louis, MO 63166 (PDE-103).

(8) GTE Products Corp., Danvers, MA 01923 (PDE-105).

(9) King-Seeley Thermos Co., Queen Products Division, Albert Lea, MN 56007 (PDE-139).

(10) L.E. Mason Co., Red Dot Division, Boston, MA 02136 (PDE-223).

(11) Minnesota Mining and Manufacturing Co., St. Paul, MN 55133 (PDE-157.3).

(12) National Association of Electrical Distributors, Stamford, CT 06901 (PDE-163).

(13) Royalite Co., Flint, MI 48502 (PDE-231).

(14) Sola Electric, Unit of General Signal, Elk Grove Village, IL 60007 (PDE-246).

(15) Transco, Inc., West Columbia, SC 29169 (PDE-276.1).

(16) Westinghouse Electric Corp., Pittsburgh, PA 15222 (PDE-298).

(c) The Administrator grants the following petitioners an exemption for one year to process PCB small capacitors and PCB equipment containing PCB small capacitors into other equipment and to distribute in commerce that equipment:

(1) Advance Transformer Co., Chicago, IL 60618 (PDE-4).

(2) Gould, Inc., Electric Moter Division, St. Louis, MO 63166 (PDE-103).

(3) GTE Products Corp., Danvers, MA 01923 (PDE-105).

(4) L.E. Mason Co., Red Dot Division, Boston, MA 02136 (PDE-223).

(5) Westinghouse Electric Corp., Pittsburgh, PA 15222 (PDE-298).

(d) The Administrator grants the following petitioners an exemption for one year to process and distribute in commerce PCB-contaminated fluid for purposes of servicing customers' transformers:

(1) Electrical Apparatus Service Association, St. Louis, MO 63132 (PDE-77), except for Ward Transformer Co., Inc.

(2) Ohio Transformer Corp., Louisville, OH 44641 (PDE-173).

(3) T & R Electric Supply Co., Inc., Colman, SD 57017 (PDE-265).

(4) Temco, Inc., Corpus Christi, TX 78410 (PDE-268).

(e) The Administrator grants the following petitioners an exemption for one year to process and distribute in commerce PCB-contaminated fluid in buying and selling used PCB-contaminated transformers:

(1) Electrical Apparatus Service Association, St. Louis, MO 63132 (PDE-77), except for Ward Transformer Co., Inc.

(2) Ohio Transformer Corp., Louisville, OH 44641 (PDE-173).

(3) Temco, Inc., Corpus Christi, TX 78410 (PDE-268).

(f) The Administrator grants the following petitioners an exemption for one year to manufacture small quantities of PCBs for research and development:

(1) California Bionuclear Corp., Sun Valley, CA 91352 (ME-13).

(2) Foxboro Co., North Haven, CT 06473 (ME-6).

(3) ULTRA Scientific, Inc., Hope, RI 02831 (ME-99.1).

(g) The Administrator grants the following petitioners an exemption for one year to process and distribute in commerce small quantities of PCBs for research and development:

(1) California Bionuclear Corp., Sun Valley, CA 91352 (PDE-38.1).

(2) Chem Service, Inc., West Chester, PA 19380 (PDE-41).

(3) Foxboro Co., North Haven, CT 06473 (PDE-21.1).

(4) PolyScience Corp., Niles, IL 60648 (PDE-178).

(5) ULTRA Scientific, Inc., Hope, RI 02831 (PDE-282.1).

(h) The Administrator grants the following petitioners an exemption for one year to process and distribute in commerce PCBs for use as a mounting medium in microscopy for all purposes:

(1) McCrone Accessories & Components, Division of Walter C. McCrone Associates, Inc., Chicago, IL 60616 (PDE-149).

(2) R.P. Cargille Laboratories, Inc., Cedar Grove, NJ 07009 (PDE-181), provided that petitioner stores the PCBs it processes and distributes in commerce in accordance with the storage for disposal requirements of 40 CFR 761.65(b).

(i) The Administrator grants the following petitioners an exemption for one year to process and distribute in commerce PCBs for use as an immersion oil in low fluorescence microscopy (other than capillary microscopy):

(1) R.P. Cargille Laboratories, Inc., Cedar Grove, NJ 07009 (PDE-181), provided that petitioner stores the PCBs it processes and distributes in commerce in accordance with the storage for disposal requirements of 40 CFR 761.65(b).

(j) The Administrator grants the following petitioners an exemption for one year to process and distribute in commerce small quantities of PCBs for use as an optical liquid:

(1) R.P Cargille Laboratories, Inc., Cedar Grove, NJ 07009 (PDE-181), provided that petitioner stores the PCBs it processes and distributes in commerce in accordance with the storage for disposal requirements of 40 CFR 761.65(b).

(k) The Administrator grants the following petitioners an exemption for one year to distribute in commerce previously imported and repaired PCB equipment containing PCB small capacitors:

(1) Honeywell, Inc., Waltham, MA 02154 (PDE-119).

(l) The Administrator grants the following petitioners an exemption for one year to import samples of PCB-containing fluid taken from PCB transformers for purposes of testing and analysis:

(1) Dow Corning Corp., Midland, MI 48460 (ME-31.1).

(m) The Administrator grants the following petitioners an exemption for one year to process and export small quantities of PCBs for research and development:

(1) Chem Service, Inc., West Chester, PA 19380 (PDE-41).

(2) Foxboro Co., North Haven, CT 06473 (PDE-21.1).

(3) PolyScience Corp., Niles, IL 60648 (PDE-178).

(4) ULTRA Scientific, Inc., Hope, RI 02831 (PDE-282.1).

(n) The one-year exemption granted to petitioners in paragraphs (f), (g), (l) and (m) of this section shall be renewed automatically unless a petitioner notifies EPA of any increase in the amount of PCBs to be manufactured, imported, processed, distributed in commerce, or exported or any change in the manner of manufacture, processing, distribution in commerce, or export of PCBs. EPA will consider the submission of such information to be a renewed petition for exemption. EPA will evaluate the information in the renewed exemption petition, publish a proposed rule for public comments, and issue a final rule either granting or denying the exemption. Until EPA acts on the renewed exemption petition, the petitioner will be allowed to continue the activities for which it requests exemption.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 28171, July 10, 1984]

Subparts F-I—[Reserved]

Subpart J—Records and Reports

§ 761.180 Records and monitoring.

This section contains recordkeeping and reporting requirements that apply to PCBs, PCB Items, and PCB storage and disposal facilities that are subject to the requirements of the part.

(a) *PCBs and PCB Items in service or projected for disposal.* Beginning July 2, 1978, each owner or operator of a facility using or storing at one time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB Container(s) or one or more PCB Transformers, or 50 or more PCB Large High or Low Voltage Capacitors shall develop and maintain records on the disposition of PCBs and PCB Items. These records shall form the basis of an annual document prepared for each facility by July 1 covering the previous calendar year. Owners or operators with one or more facilities that use or store PCBs and PCB Items in the quantities described above may maintain the records and documents at one of the facilities that is normally occupied for 8 hours a day, provided the identity of this facility is available at each facility using or storing PCBs and PCB Items. The records and documents shall be maintained for at least five years after the facility ceases using or storing PCBs and PCB Items in the prescribed quantities. The following information for each facility shall be included in the annual document:

(1) The dates when PCBs and PCB Items are removed from service, are placed into storage for disposal, and are placed into transport for disposal. The quantities of the PCBs and PCB Items shall be indicated using the following breakdown:

(i) Total weight in kilograms of any PCBs and PCB Items in PCB Containers including the identification of container contents such as liquids and capacitors;

(ii) Total number of PCB Transformers and total weight in kilograms of any PCBs contained in the transformers; and

(iii) Total number of PCB Large High or Low Voltage Capacitors.

(2) For PCBs and PCB Items removed from service, the location of the initial disposal or storage facility and the name of the owner or operator of the facility.

(3) Total quantities of PCBs and PCB Items remaining in service at the end of the calendar year using the following breakdown:

(i) Total weight in kilograms of any PCBs and PCB Items in PCB Containers, including the identification of container contents such as liquids and capacitors;

(ii) Total number of PCB Transformers and total weight in kilograms of any PCBs contained in the transformers; and

(iii) Total number of PCB Large High or Low Voltage Capacitors.

(b) *Disposal and storage facilities.* Each owner or operator of a facility (including high efficiency boiler operations) used for the storage or disposal of PCBs and PCB Items shall by July 1, 1979 and each July 1 thereafter prepare and maintain a document that includes the information required in paragraphs (b) (1) through (4) of this section for PCBs and PCB Items that were handled at the facility during the previous calendar year. The document shall be retained at each facility for at least 5 years after the facility is no longer used for the storage or disposal of PCBs and PCB Items except that in the case of chemical waste landfills, the document shall be maintained at least 20 years after the chemical waste landfill is no longer used for the disposal of PCBs and PCB Items. The documents shall be available at the facility for inspection by authorized representatives of the Environmental Protection Agency. If the facility ceases to be used for PCB storage or disposal, the owner or operator of such facility shall notify within 60 days the EPA Regional Administrator of the region in which the facility is located that the facility has ceased storage or disposal operations. The notice shall specify where the documents that are required to be maintained by this paragraph are located. The following information shall be included in each document:

(1) The date when any PCBs and PCB Items were received by the facility during the previous calendar year for storage or disposal, and identification of the facility and the owner or operator of the facility from whom the PCBs were received;

(2) The date when any PCBs and PCB Items were disposed of at the disposal facility or transferred to another disposal or storage facility, including the identification of the specific types of PCBs and PCB Items that were stored or disposed of;

(3) A summary of the total weight in kilograms of PCBs and PCB Articles

in containers and the total weight of PCBs contained in PCB Transformers, that have been handled at the facility during the previous calendar year. This summary shall provide totals of the above PCBs and PCB Items which have been:

(i) Received during the year;

(ii) Transferred to other facilities during the year; and

(iii) Retained at the facility at the end of the year. In addition the contents of PCB Containers shall be identified. When PCB Containers and PCBs contained in a transformer are transferred to other storage or disposal facilities, the identification of the facility to which such PCBs and PCB Items were transferred shall be included in the document.

(4) Total number of any PCB Articles or PCB Equipment not in PCB Containers, received during the calendar year, transferred to other storage or disposal facilities during the calendar year, or remaining on the facility site at the end of the calendar year. The identification of the specific types of PCB Articles and PCB Equipment received, transferred, or remaining on the facility site shall be indicated. When PCB Articles and PCB Equipment are transferred to other storage or disposal facilities, the identification of the facility to which the PCB Articles and PCB Equipment were transferred must be included.

NOTE: Any requirements for weights in kilograms of PCBs may be calculated values if the internal volume of containers and transformers is known and included in the reports, together with any assumptions on the density of the PCBs contained in the containers or transformers.

(c) *Incineration facilities.* Each owner or operator of a PCB incinerator facility shall collect and maintain for a period of 5 years from the date of collection the following information, in addition to the information required in paragraph (b) of this section:

(1) When PCBs are being incinerated, the following continuous and short-interval data:

(i) Rate and quantity of PCBs fed to the combustion system as required in § 761.70(a)(3);

(ii) Temperature of the combustion process as required in § 761.70(a)(4); and

(iii) Stack emission product to include O_2, CO, and CO_2 as required in § 761.70(a)(7).

(2) When PCBs are being incinerated, data and records on the monitoring of stack emissions as required in § 761.70(a)(6).

(3) Total weight in kilograms of any solid residues generated by the incineration of PCBs and PCB Items during the calendar year, the total weight in kilograms of any solid residues disposed of by the facility in chemical waste landfills, and the total weight in kilograms of any solid residues remaining on the facility site.

(4) When PCBs and PCB Items are being incinerated, additional periodic data shall be collected and maintained as specified by the Regional Administrator pursuant to § 761.70(d)(4).

(5) Upon any suspension of the operation of any incinerator pursuant to § 761.70(a)(8), the owner or operator of such an incinerator shall prepare a document. The document shall, at a minimum, include the date and time of the suspension and an explanation of the circumstances causing the suspension of operation. The document shall be sent to the appropriate Regional Administrator within 30 days of any such suspension.

(d) *Chemical waste landfill facilities.* Each owner or operator of a PCB chemical waste landfill facility shall collect and maintain until at least 20 years after the chemical waste landfill is no longer used for the disposal of PCBs the following information in addition to the information required in paragraph (b) of this section:

(1) Any water analysis obtained in compliance with § 761.75(b)(6)(iii); and

(2) Any operations records including burial coordinates of wastes obtained in compliance with § 761.75(b)(8)(ii).

(e) *High efficiency boiler facilities.* Each owner or operator of a high efficiency boiler used for the disposal of liquids between 50 and 500 ppm PCB shall collect and maintain for a period of 5 years the following information, in addition to the information required in paragraph (b) of this section:

(1) For each month PCBs are burned in the boiler the carbon monoxide and excess oxygen data required in § 761.60(a)(2)(iii)(A)(8) and § 761.60(a)(3)(iii)(A)(8);

(2) The quantity of PCBs burned each month as required in § 761.60(a)(2)(iii)(A)(7) and § 761.60(a)(3)(iii)(A)(7); and

(3) For each month PCBs (other than mineral oil dielectric fluid) are burned, chemical analysis data of the waste as required in § 761.60(a)(3)(iii)(B)(6).

(f) *Retention of special records by storage and disposal facilities.* In addition to the information required to be maintained under paragraphs (b), (c), (d) and (e) of this section, each owner or operator of a PCB storage or disposal facility (including high efficiency boiler operations) shall collect and maintain for the time period specified in paragraph (b) of this section the following data:

(1) All documents, correspondence, and data that have been provided to the owner or operator of the facility by any State or local government agency and that pertain to the storage or disposal of PCBs and PCB Items at the facility.

(2) All documents, correspondence, and data that have been provided by the owner or operator of the facility to any State or local government agency and that pertain to the storage or disposal of PCBs and PCB Items at the facility.

(3) Any applications and related correspondence sent by the owner or operator of the facility to any local, State, or Federal authorities in regard to waste water discharge permits, solid waste permits, building permits, or other permits or authorizations such as those required by §§ 761.70(d) and 761.41(c).

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[44 FR 31542, May 31, 1979. Redesignated at 47 FR 19527, May 6, 1982, and 47 FR 37360, Aug. 25, 1982; 49 FR 28191, July 10, 1984]

§ 761.185 Certification program and retention of records by importers and persons generating PCBs in excluded manufacturing processes.

(a) In addition to meeting the basic requirements of § 761.1(f) and the definition of excluded manufacturing processes at § 761.3, manufacturers with processes inadvertently generating PCBs and importers of products containing inadvertently generated PCBs must report to EPA any excluded manufacturing process or imports for which the concentration of PCBs in products leaving the manufacturing site or imported is greater than 2 micrograms per gram (2 μg/g, roughly 2 ppm) for any resolvable gas chromatographic peak. Such reports must be filed by October 1, 1984 or, if no processes or imports require reports at the time, within 90 days of having processes or imports for which such reports are required.

(b) Manufacturers required to report by paragraph (a) of this section must transmit a letter notifying EPA of the number, the type, and the location of excluded manufacturing processes in which PCBs are generated when the PCB level in products leaving any manufacturing site is greater than 2 μg/g for any resolvable gas chromatographic peak. Importers required to report by paragraph (a) of this section must transmit a letter notifying EPA of the concentration of PCBs in imported products when the PCB concentration of products being imported is greater than 2 μg/g for any resolvable gas chromatographic peak. Persons must also certify the following:

(1) Their compliance with all applicable requirements of § 761.1(f), including any applicable requirements for air and water releases and process waste disposal.

(2) Whether determinations of compliance are based on actual monitoring of PCB levels or on theoretical assessments.

(3) That such determinations of compliance are being maintained.

(4) If the determination of compliance is based on a theoretical assessment, the letter must also notify EPA of the estimated PCB concentration levels generated and released.

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(c) Any person who reports pursuant to paragraph (a) of this section:

(1) Must have performed either a theoretical analysis or actual monitoring of PCB concentrations.

(2) Must maintain for a period of three years after ceasing process operations or importation, or for seven years, whichever is shorter, records containing the following information:

(i) *Theoretical analysis.* Manufacturers records must include: the reaction or reactions believed to be generating PCBs; the levels of PCBs generated; and the levels of PCBs released. Importers records must include: the reaction or reactions believed to be generating PCBs and the levels of PCBs generated; the basis for all estimations of PCB concentrations; and the name and qualifications of the person or persons performing the theoretical analysis; or

(ii) *Actual monitoring.* (A) The method of analysis.

(B) The results of the analysis, including data from the Quality Assurance Plan.

(C) Description of the sample matrix.

(D) The name of the analyst or analysts.

(E) The date and time of the analysis.

(F) Numbers for the lots from which the samples are taken.

(d) The certification required by paragraph (b) of this section must be signed by a responsible corporate officer. This certification must be maintained by each facility or importer for a period of three years after ceasing process operation or importation, or for seven years, whichever is shorter, and must be made available to EPA upon request. For the purpose of this section, a responsible corporate officer means:

(1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.

(2) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25,000,000 (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(e) Any person signing a document under paragraph (d) of this section shall also make the following certification:

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 information. Based on my inquiry of the person or persons directly responsible for gathering information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for falsifying information, including the possibility of fines and imprisonment for knowing violations.

Dated: _____

Signature: _____

(f) This report must be submitted to the U.S. Environmental Protection Agency, Document Processing Center, P.O. Box 2070, Rockville, MD 20852, Attention: PCB Notification. This report must be submitted by October 1, 1984 or within 90 days of starting up processes or commencing importation of PCBs.

(g) This certification process must be repeated whenever process conditions are significantly modified to make the previous certification no longer valid.

(Approved by the Office of Management and Budget under control number 2070-0008)

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 28191, July 10, 1984; 49 FR 33019, Aug. 20, 1984]

§ 761.187 Reporting importers and by persons generating PCBs in excluded manufacturing processes.

In addition to meeting the basic requirements of § 761.1(f) and the definition of excluded manufacturing process at § 761.3, PCB-generating manufacturing processes or importers of PCB-containing products shall be considered "excluded manufacturing processes" only when the following conditions are met:

(a) Data are reported to the EPA by the owner/operator or importer concerning the total quantity of PCBs in product from excluded manufacturing processes leaving any manufacturing site in any calendar year when such quantity exceeds 0.0025 percent of that site's rated capacity for such manufacturing processes as of October 1, 1984; or the total quantity of PCBs imported in any calendar year when such quantity exceeds 0.0025 percent of the average total quantity of such product containing PCBs imported by such importer during the years 1978, 1979, 1980, 1981 and 1982.

(b) Data are reported to the EPA by the owner/operator concerning the total quantity of inadvertently generated PCBs released to the air from excluded manufacturing processes at any manufacturing site in any calendar year when such quantity exceeds 10 pounds.

(c) Data are reported to the EPA by the owner/operator concerning the total quantity of inadvertently generated PCBs released to water from excluded manufacturing processes from any manufacturing site in any calendar year when such quantity exceeds 10 pounds.

(d) These reports must be submitted to the U.S. Environmental Protection Agency, Document Processing Center, P.O. Box 2070, Rockville, Maryland 20852, Attention: PCB Notification.

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

(Approved by the Office of Management and Budget under control number 2070-0008)

[49 FR 28192, July 10, 1984]

§ 761.193 Maintenance of monitoring records by persons who import, manufacture, process, distribute in commerce, or use chemicals containing inadvertently generated PCBs.

(a) Persons who import, manufacture, process, distribute in commerce, or use chemicals containing PCBs present as a result of inadvertent generation or recycling who perform any actual monitoring of PCB concentrations must maintain records of any such monitoring for a period of three years after a process ceases operation or importing ceases, or for seven years, whichever is shorter.

(b) Monitoring records maintained pursuant to paragraph (a) of this section must contain:

(1) The method of analysis.

(2) The results of the analysis, including data from the Quality Assurance Plan.

(3) Description of the sample matrix.

(4) The name of the analyst or analysts.

(5) The date and time of the analysis.

(6) Numbers for the lots from which the samples are taken.

(Approved by the Office of Management and Budget under control number 2070-0008)

(Sec. 6, Pub. L. 94-469, 90 Stat. 2020 (15 U.S.C. 2605)

[49 FR 28193, July 10, 1984]

PART 762—FULLY HALOGENATED CHLOROFLUOROALKANES

Subpart A—General Provisions

Sec.
762.1 Scope.
762.3 Definitions.

Subpart B—[Reserved]

Subpart C—Prohibitions, Exemptions, and Certification Requirements

762.45 Manufacturing.
762.50 Processing.
762.55 Distribution in commerce.
762.58 Essential use exemptions.
762.59 Special exemptions.

Subpart D—Records and Reports

762.60 General reporting requirements.
762.65 Manufacturers of fully halogenated chlorofluoroalkanes for aerosol propellant uses.
762.70 Processors of fully halogenated chlorofluoroalkanes for aerosol propellant uses.

AUTHORITY: 15 U.S.C. 2605, 2607, and 2611.

SOURCE: 45 FR 43721, June 30, 1980, unless otherwise noted.

PCB INFORMATION
Contacts

1. Environmental Protection Agency
   William Hedgebeth
   1200 Sixth Avenue
   AT 093
   Seattle, WA 98101
   (206) 442-7369

2. Washington Water Power Company
   Fred Shiosaki
   E. 1411 Mission
   Spokane, WA 99202
   (509) 482-4620

3. Spokane Fire Department
   Chief Stapleton
   W. 44 Riverside
   Spokane, WA 99201
   (509) 456-2694

4. Gonzaga University
   Charles Murphy
   Vice President for Finance
   Spokane, WA 99258
   (509) 328-4220

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PCB INFORMATION PACKET

1. Overview:
   Background information including history, users, properties, health effects, history of regulations, and a summary of 40 CFR, Part 761, Toxic Substance Control Act (TSCA).

2. Regulations:
   Environmental Protection Agency, 40 CFR, Ch. 1, Part 761, July 1, 1986.

   Federal Register, Vol. 51, No. 153, 40 CFR, Part 761, Amended, August 8, 1986.

   Federal Register, Vol. 51, No. 250, 40 CFR, Part 761, Clarification, December 31, 1986.

   Federal Register, Vol. 52, No. 63, 40 CFR, Part 761, Polychlorinated Biphenyls Spill Cleanup Policy, April 2, 1987.

   Federal Register, Vol. 52, No. 162, 40 CFR, Part 761, Polychlorinated Biphenyls in Electrical Transformers (Proposed Rules), August 21, 1987.

3. Clarifications:
   Use of Electrical Transformers, March 1987. (Source unknown.)

4. Identification:
   Unison, How to Identify PCB Transformers (no date).

5. Requirements:
   Unison, PCB Transformers - Requirements Review, September 1986.

6. Reporting:
   Sample table for reporting PCB transformers. Sample forms for quarterly and annual reporting to EPA.

7. Labeling:
   Sample label required on all PCB transformers, etc.

8. Health Guidelines:
   U.S. Department of Labor, Occupational Safety and Health Administration, Occupational Health Guidelines for Chlorodephenyl, September 1978.

9. Informational Materials:
   Letters from other sources with PCB problems.

10. Contacts:
    List of persons and agencies to contact for additional information regarding your potential PCB problems.

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PCBs - Polychlorinated Biphenyls

Class of chlorinated organic compounds.
Basic structure - 2 Benzene rings with one or more hydrogen atoms replaced by chlorine atoms.

History

- Besides the U. S., PCBs have been produced in Japan, France, Germany, Italy, Spain, Austria, the United Kingdon, the USSR and Czechoslovakia.

- PCBs are still being manufactured in Germany, France, Spain, Italy and some Eastern European countries.

- Monsanto
  - Virtually the sole producer of PCBs in the U. S.
  - Manufactured from 1936-1977
  - Assigned the trade name "Aroclor"
  - "Aroclor: followed by a product number - indicated the percent of chlorine by weight in the product formula. Aroclor 1242, 12 - biphenyl molecules -- 42 - % Cl by weight.

Users (where)

- From 1929-1977 used as electrical insulating and cooling fluid in electrical equipment such as transformers and power capacitors.

- Smaller PCB capacitors were used in refrigerators, air conditioners and as ballast in fluorescent lighting fixtures.

- PCBs have also been used in plastics, paint, rubber, ink, adhesives, carbonless copy paper, casting wax, pesticides and in hydraulic and heat transfer fluid.

- Electrical equipment manufacturers purified the commercial PCBs by adding stabilizing materials. The resulting fluid, which was practically pure PCB, was used "as is" in capacitors. For PCB transformers, the fluid was diluted with trichlorobenzene so that the resultant fluid contained 60-70% PCBs.

- Electrical equipment manufacturers had their own name for PCB - Trichlorobenzene mixture:

Westinghouse Trade Name	- Inerteen
GE Trade Name	- Pyranol
Generic Name	- Askarel

Properties (why used)

- Good electrical insulator
- Do not vaporize at elevated temperatures, are chemically stable, and have a large capacity to store heat
- Extremely fire resistant
- Low flammability made them extremely attractive for use in electrical equipment to be placed in places such as public buildings, hotels, schools and tunnels.

How Have PCBs Gotten Into The Environment

Prior to the regulations, PCBs entered the air, land and waterways by many paths. Some examples are:

- Vaporization and dissolving PCB in paints, coatings, plastics and asphalts
- Use of discarded transformer oil as a dust control agent and for road oiling
- Incomplete or low temperature incineration of PCB contaning materials such as carbonless copy paper and plastics or of PCB liquids themselves.
- Leaks from heat exchange and partially sealed hydraulic systems
- Liquid, gaseous and solid effluent from PCB equipment manufacturing facilities
- Run-off and vaporization from refuse dumps and landfills.

Health Effects

- PCBs can enter the body in three ways:
  - Breathing
  - Skin Absorption
  - Ingestion

- General public most common route is diet
- Occupational exposure - air and skin

- Many studies have been performed and basically they all conclude that two health effects, neither of them serious, can result from PCB exposure.

  1. Chloracne -- rash, skin disorder. Clears up when exposure to PCBs is stopped.

  2. Production of excess amount of proteins, mainly in the liver. Not considered a significant threat to health.

Yusho Incident

- Outbreak of mass food poisoning that occurred in Japan in 1968 affecting over 1,600 people.

- Caused by eating a commercial brand of cooking oil contaminated with 1,000 ppm PCBs, 1,000 ppm polychlorinated quarterphenyls (PCQs) and 5 ppm polychlorinated dibenzofurans (PCDFs).

- Symptons of Yusho Disease included:
  - Chloracne
  - Pigmentation of skin and nails
  - Swelling and increased secretions of the eye
  - Breathing difficulties
  - Changes in blood composition
  - Bursitis.

- Researchers attribute the bulk of the Yusho symptoms to the PCDFs in the cooking oil. PCDFs are hundreds of times more toxic than PCBs.

History of the PCB Regulations

1. In 1966, the dicovery of PCBs in fish and eagles in Sweden sparked a series of investigations. The investigations showed:
   a. PCBs had become fairly widespread in the environment
   b. PCBs, since they are highly stable and non-biodegradable, tend to build up in the bodies of animals exposed to them.

2. In 1968 the Yusho incident resulted in increasing concern about PCBs even though the symptoms are attributed to the PCDFs.

3. In 1971 Monsanto announced that it would only sell PCBs in sealed electrical equipment. Its use in paints and carbonless paper ceased.

4. In 1973 the U. S. Food and Drug Administration established allowable limits of PCB concentrations in food products.

5. In 1976 Congress passed the Toxic Substances Control Act in which they banned the use of PCBs in open applications and directed the EPA to regulate the manufacture, processing, distribution in commerce and disposal of PCBs.

6. In 1977 Monsanto voluntarily ended all production of PCBs.

7. In 1978, 79 and 82, EPA issued regulations governing the manufacture, use and disposal of PCBs and equipment containing PCBs.

Definitions

Small capacitor means a capacitor containing less than 3 pounds of dielectric fluid. If the actual weight of the dielectric fluid is unknown, a capacitor whose total volume is less than 100 in^3 may be considered to contain less than 3 pounds of dielectric fluid.

Large HV Capacitor means a capacitor which contains 3 pounds or more of dielectric fluid and which operates at 2000V or above.

Large LV Capacitor means a capacitor which contains 3 pounds or more of dielectric fluid and which operates below 2000V.

PCB Transformer means any transformer that contains 500 ppm or greater PCBs.

PCB Contaminated Transformer means any transformer containing between 50-500 ppm PCBs.

Non-PCB Transformer means any transformer containing less than 50 ppm PCB.

PCB Container means any package, can, bottle, barrel, drum, tank or other device used to contain PCB equipment and whose surface has been in direct contact with PCBs.

Posing An Exposure Risk to Food or Feed means being in any location where human food or animal feed products could be exposed to PCBs released from a PCB Item.

Use Conditions of PCB Items

Transformers: Remainder of their useful lives except for those posing an exposure risk to food or feed, their use is prohibited after October 1, 1985.

For PCB transformers remaining in use: Visual inspections are required quarterly and any clean up of PCBs from leaks must be initiated within 48 hours of its discovery. Records of inspections and maintenance history must be kept for at least 3 years after disposing of the transformer and records must contain such information as:

1. Its location
2. Date of inspection
3. Person performing the inspection
4. Location of leak
5. Date of repair or clean up
6. Estimate of amount of liquid released from leak
7. Description of clean up or repair

Weekly inspections are required for transformers posing an exposure risk to food or feed.

Servicing Conditions

- PCB Transformer servicing is permitted except that the removal of the transformer coil is prohibited. Liquids removed during servicing must be either reused as dielectric fluid or disposed of in a proper manner.
- PCB Contaminated (50-500 ppm) - no servicing restrictions.
- A PCB Transformer may be converted to a PCB Contaminated Transformer or to a non-PCB Transformer by draining and refilling with a non-PCB dielectric fluid. However, before it can be reclassified it must be back into normal operation for at least 90 days and a laboratory analysis performed.
- If at any time PCB liquid containing less than 500 ppm PCBs is mixed with liquid containing $>$ 500 ppm, it can no longer be used in electrical equipment even if a laboratory analysis indicates it is still below 500 ppm. The entire mixture must be treated as $>$500 ppm.

Capacitors Use

After October 1, 1988 the use and storage for reuse of PCB Large Capacitors which pose an exposure risk to food or feed is prohibited.

Also, after October 1, 1988 the use and storage for reuse of PCB Large Capacitors that do not pose an exposure risk to food or feed is prohibited unless it is used within a restricted-access electrical substation or in a contained and restricted access indoor installation.

Marking

Items to be marked include:
PCB containers, transformers and Large High and Low Voltage Capacitors.

Also, storage areas must be labeled and transport vehicles that contain 45 kgs or more of liquid PCBs.

PCB Contaminated Transformers - no label
PCB Contaminated Containers - label but indicate 50-500 ppm

Additional PCB items to be marked are in the PCB regulations.

Disposal

Liquids

$>$500 -- must be incinerated in an EPA approved incinerator

1. Rollins, Deer Park, Texas]
2. ENSCO, Little Rock, Arkansas] Corporate Contracts
3. SCA, Chicago, Illinois]

50-500 ppm (Contaminated) -- Incinerated in an EPA approved incinerator.
Burned in an EPA approved high efficiency boiler.
Solidified and disposed of in a chemical landfill.

1. Chemical Waste Management, Emelle, Alabama]
2. CECOS, Williamsburg, Ohio and Niagara Falls, New York] Corporate Contracts
3. SCA, Model City, New York]
4. ESI, Grandview, Idaho
5. U. S. Ecology, Beatty, Nevada
6. Casmalia Disposal, Santa Barbara, California

<50 - Not regulated except that it cannot be used for road oiling and dust control.

Transformers

>500 - must be incinerated or;
Drained, filled with solvent and let stand for at least 18 hours;
Drained and then disposed of in a chemical landfill.
Liquids - must be incinerated.

50-500 ppm -- Drained of all liquid, disposal of carcass is not regulated (liquid disposed of in proper manner).

<50 -- not regulated.

Capacitors

Large Capacitors must be incinerated. Rollins and ENSCO are the only two approved. Small Capacitors -- municipal solid waste unless they are owned by any person who manufactures or at any time manufactured PCB capacitors or PCB equipment and acquired the PCB capacitors in the course of such manufacturing. In this case, they must be incinerated.

Solid Waste

Gloves, rags, oil dry, soil, etc. - incineration or chemical landfill.

PCB Containers - Unless decontaminated they must be diposed of in an incinerator or chemical landfill providing that all liquids have been removed.

Container used to contain only PCBs at a concentration of less than 500 ppm -- empty container is not regulated.

Storage for Disposal Requirements

Liquids -- DOT 17E Drums or approved storage tanks
Non-liquids -- DOT 17C Drums
Capacitors -- DOT 17C Drums or approved containers

Facilities --
1. Adequate roof and walls to prevent rain water from reaching the stored PCBs and PCB Items.
2. Adequate floor with minimum 6" high curb. Containment capacity must be 2 times largest container or 25% total internal volume, whichever is greater.
3. No drain valves, floor drains, expansion joints, sewer lines or other openings that would permit liquid to escape from the curbed area.
4. Floors and curbing must be constructed of impervious materials such as Portland cement concrete or steel.
5. Must be located above 100 year flood plan.

- Items must be dated when placed into storage and arranged in the storage so that they can be found by date.
- Storage areas must be checked for leaks at least once every 30 days.
- As of January 1, 1983 disposal of PCBs must occur within one year after placed in storage.

Temporary storage (areas that do not comply with the storage requirements) is permissible for 30 days for certain items provided that the date removed from service is placed on the drum. These items include:

1. Non-leaking PCB Equipment
2. Leaking PCB Capacitors placed into non-leaking containers that contain sufficient sorbent material to absorb any liquid PCBs remaining in the item
3. PCB Containers containing non-liquid PCBs such as rags, soil, etc.
4. PCB Containers containing liquid PCBs at a concentration between 50-500 ppm provided that a SPCC Plan has been prepared.

There is no temporary storage for containers containing liquid PCBs in excess of 500 ppm.

Spills

Spills, leaks and other uncontrolled discharges of PCBs constitute the disposal of PCBs. Materials resulting from the clean up and removal of spills, leaks or other uncontrolled discharges must be stored and disposed of in either an approved incinerator or an approved chemical waste landfill. Spills in soil, gravel, sludge, fill, etc., must be cleaned up below 50 ppm.

Manifesting

DOT requires that PCBs be manifested as follows:

Hazard Class	UN Number
ORM-E	UN 2315

Records

Besides transformer inspection and storage area inspection records, facilities with one or more PCB transformers and/or 50 or more large capacitors are required to keep records on yearly inventory and disposal of any transformers and capacitors.

Occupational Health Guideline for Chlorodiphenyl (54% Chlorine)*

INTRODUCTION

This guideline is intended as a source of information for employees, employers, physicians, industrial hygienists, and other occupational health professionals who may have a need for such information. It does not attempt to present all data; rather, it presents pertinent information and data in summary form.

SUBSTANCE IDENTIFICATION

- Formula: $C_{12}H_5Cl_5$ (approximately)
- Synonyms: Polychlorinated biphenyl; PCB
- Appearance and odor: Pale yellow viscous liquid with a mild hydrocarbon odor.

PERMISSIBLE EXPOSURE LIMIT (PEL)

The current OSHA standard for chlorodiphenyl (54% chlorine) is 0.5 milligram of chlorodiphenyl (54% chlorine) per cubic meter of air (mg/m³) averaged over an eight-hour work shift. NIOSH has recommended that the permissible exposure limit for polychlorinated biphenyls be reduced to 1.0 microgram per cubic meter of air averaged over a work shift of up to 10 hours per day, 40 hours per week, and that chlorodiphenyl (54% chlorine) be regulated as an occupational carcinogen. The NIOSH Criteria Document for Polychlorinated Biphenyls should be consulted for more detailed information.

HEALTH HAZARD INFORMATION

- **Routes of exposure**

Chlorodiphenyl (54% chlorine) can affect the body if it is inhaled, if it comes in contact with the eyes or skin, or if it is swallowed. It may be absorbed through the skin. Every effort should be made to prevent skin, eye, oral, or inhalation contact with this material.

- **Effects of overexposure**

Chlorodiphenyl (54% chlorine) may cause irritation of the eyes, nose, and throat, and an acne-like skin rash. It may also injure the liver, resulting in such effects as fatigue, dark urine, and yellow jaundice. Repeated skin contact with the liquid may cause skin irritation.

- **Reporting signs and symptoms**

A physician should be contacted if anyone develops any signs or symptoms and suspects that they are caused by exposure to chlorodiphenyl (54% chlorine). The production of liver tumors and adverse reproductive effects have been demonstrated in experimental animals following ingestion of polychlorinated biphenyls. The relevance to humans of some of these studies has not yet been established.

- **Recommended medical surveillance**

The following medical procedures should be made available to each employee who is exposed to chlorodiphenyl (54% chlorine) at potentially hazardous levels:

1. Initial Medical Examination:

—A complete history and physical examination: The purpose is to detect pre-existing conditions that might place the exposed employee at increased risk, and to establish a baseline for future health monitoring. Examination of the liver and skin should be stressed. Women in the work force should be advised of the potential adverse effects of chlorodiphenyl (54% chlorine) on the unborn child. Those who have borne children and work with chlorodiphenyl (54% chlorine) should be counseled concerning the advisability of nursing their offspring.

—Liver function tests: Chlorodiphenyl (54% chlorine) may cause liver damage. A profile of liver function should be obtained by utilizing a medically acceptable array of biochemical tests.

—Skin disease: Chlorodiphenyl (54% chlorine) is a defatting agent and can cause dermatitis on prolonged exposure. Persons with pre-existing skin disorders may be more susceptible to the effects of this agent.

2. Periodic Medical Examination: The aforementioned medical examinations should be repeated on an annual basis.

These recommendations reflect good industrial hygiene and medical surveillance practices and their implementation will assist in achieving an effective occupational health program. However, they may not be sufficient to achieve compliance with all requirements of OSHA regulations.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service Centers for Disease Control
National Institute for Occupational Safety and Health

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

• **Summary of toxicology**

Chlorodiphenyl (54% chlorine) vapor is toxic to the liver. Rats exposed to 5.4 mg/m³ for 7 hours daily for 4 months showed increased liver weight and injury to the liver cells; 1.5 mg/m³ for 7 months also produced histopathologic evidence of liver damage, which was considered to be of a reversible character. The vapor and the liquid are moderately irritating to the eye; contact with skin leads to removal of natural fats and oils with subsequent drying and cracking of the skin. Acne-form dermatitis (chloracne) due to exposure to chlorodiphenyl of 54% chlorine content has been reported but the period of exposure was not indicated. The production of liver tumors and adverse reproductive effects has been demonstrated in experimental animals following ingestion of polychlorinated biphenyls. The relevance to humans of some of these studies has not yet been established.

CHEMICAL AND PHYSICAL PROPERTIES

• **Physical data**

1. Molecular weight: 326 (approximately)
2. Boiling point (760 mm Hg): 365– 390 C (689–734 F)
3. Specific gravity (water = 1): 1.5
4. Vapor density (air = 1 at boiling point of chlorodiphenyl (54% chlorine)): 11.2
5. Melting point: 10 C (50 F) (pour point)
6. Vapor pressure at 20 C (68 F): 0.00006 mm Hg
7. Solubility in water, g/100 g water at 20 C (68 F): Insoluble
8. Evaporation rate (butyl acetate = 1): Much less than 1

• **Reactivity**

1. Conditions contributing to instability: Heat
2. Incompatibilities: Contact with strong oxidizers may cause fires and explosions.
3. Hazardous decomposition products: Toxic gases and vapors (such as hydrogen chloride and carbon monoxide) may be released in a fire involving chlorodiphenyl (54% chlorine).
4. Special precautions: Chlorodiphenyl (54% chlorine) will attack some forms of plastics, rubber, and coatings.

• **Flammability**

1. Flash point: 222 C (432 F)
2. Autoignition temperature: None to boiling point
3. Flammable limits in air, % by volume: Not available
4. Extinguishant: Foam, dry chemical, carbon dioxide

• **Warning properties**

Although chlorodiphenyl (54% chlorine) has a typical aromatic odor and causes eye irritation, this substance is treated as a material with poor warning properties, as no quantitative information is available concerning its odor and irritation thresholds. The AIHA *Hygienic Guide* states that the vapors of the chlorodiphenyls are "moderately irritating to eye tissues," but the concentrations which cause irritation are not stated.

MONITORING AND MEASUREMENT PROCEDURES

• **General**

Measurements to determine employee exposure are best taken so that the average eight-hour exposure is based on a single eight-hour sample or on two four-hour samples. Several short-time interval samples (up to 30 minutes) may also be used to determine the average exposure level. Air samples should be taken in the employee's breathing zone (air that would most nearly represent that inhaled by the employee).

• **Method**

Sampling and analyses may be performed by collection of chlorodiphenyl on a filter with subsequent extraction with petroleum ether and gas chromatographic analysis. An analytical method for chlorodiphenyl (54% chlorine) is in the *NIOSH Manual of Analytical Methods*, 2nd Ed., Vol. 2, 1977, available from the Government Printing Office, Washington, D.C. 20402 (GPO No. 017-033-00260-6).

RESPIRATORS

• Good industrial hygiene practices recommend that engineering controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not technically feasible, when such controls are in the process of being installed, or when they fail and need to be supplemented. Respirators may also be used for operations which require entry into tanks or closed vessels, and in emergency situations. If the use of respirators is necessary, the only respirators permitted are those that have been approved by the Mine Safety and Health Administration (formerly Mining Enforcement and Safety Administration) or by the National Institute for Occupational Safety and Health.

• In addition to respirator selection, a complete respiratory protection program should be instituted which includes regular training, maintenance, inspection, cleaning, and evaluation.

PERSONAL PROTECTIVE EQUIPMENT

• Employees should be provided with and required to use impervious clothing, gloves, face shields (eight-inch minimum), and other appropriate protective clothing necessary to prevent any possibility of skin contact with liquid chlorodiphenyl (54% chlorine).

• Clothing contaminated with liquid chlorodiphenyl (54% chlorine) should be placed in closed containers for storage until it can be discarded or until provision is

made for the removal of chlorodiphenyl (54% chlorine) from the clothing. If the clothing is to be laundered or otherwise cleaned to remove the chlorodiphenyl (54% chlorine), the person performing the operation should be informed of chlorodiphenyl's (54% chlorine) hazardous properties.

- Non-impervious clothing which becomes contaminated with liquid chlorodiphenyl (54% chlorine) should be removed promptly and not reworn until the chlorodiphenyl (54% chlorine) is removed from the clothing.
- Employees should be provided with and required to use splash-proof safety goggles where liquid chlorodiphenyl (54% chlorine) may contact the eyes.

SANITATION

- Skin that becomes contaminated with liquid chlorodiphenyl (54% chlorine) should be promptly washed or showered with soap or mild detergent and water to remove any chlorodiphenyl (54% chlorine).
- Eating and smoking should not be permitted in areas where liquid chlorodiphenyl (54% chlorine) is handled, processed, or stored.
- Employees who handle liquid chlorodiphenyl (54% chlorine) should wash their hands thoroughly with soap or mild detergent and water before eating, smoking, or using toilet facilities.
- Areas in which exposure to chlorodiphenyl (54% chlorine) may occur should be identified by signs or other appropriate means, and access to these areas should be limited to authorized persons.

COMMON OPERATIONS AND CONTROLS

The following list includes some common operations in which exposure to chlorodiphenyl (54% chlorine) may occur and control methods which may be effective in each case:

Operation	Controls
Use as high-temperature transfer medium in chemical/food processing vessels and drying ovens	General dilution ventilation; local exhaust ventilation; personal protective equipment
Use as a dielectric in manufacture of transformers, capacitors, resistors, and other electrical apparatus	General dilution ventilation; local exhaust ventilation; personal protective equipment
Application and formulation as plasticizer, flame-retardant, and adhesive and weatherizer in spray surface coatings; manufacture and application of impregnants for cloth, paper, fiberboard, wood, and asbestos; manufacture and application of natural and synthetic waxes and polishes; manufacture and application of hot-melt and other adhesives	Process enclosure; general dilution ventilation; local exhaust ventilation; personal protective equipment
Use as non-flammable working fluid in vacuum pumps, hydraulic systems, and expansion systems	General dilution ventilation; local exhaust ventilation
Use during application of high-pressure, temperature, and moisture lubricants	Personal protective equipment
Use in compounding and processing of plastics for flame retardancy	General dilution ventilation; local exhaust ventilation; personal protective equipment
Use in manufacture and application for use as pesticides and fungicides	Personal protective equipment
Use as an intermediate or raw material in further organic synthesis	General dilution ventilation; local exhaust ventilation; personal protective equipment
Use as sealer for gaskets of natural rubber and synthetics	General dilution ventilation; local exhaust ventilation; personal protective equipment
Use as adhesive release on tapes and ink release on carbonless duplicating paper; as a pigment carrier in dyeing polyesters and paper	Personal protective equipment

Use as a pressure adhesive for sign backings, insect traps, and tapes	General dilution ventilation; local exhaust ventilation; personal protective equipment
Use in compounding mastics, and sealing and caulking materials; use in compounding of printing inks	General dilution ventilation; local exhaust ventilation; personal protective equipment

EMERGENCY FIRST AID PROCEDURES

In the event of an emergency, institute first aid procedures and send for first aid or medical assistance.

- **Eye Exposure**

If chlorodiphenyl (54% chlorine) gets into the eyes, wash eyes immediately with large amounts of water, lifting the lower and upper lids occasionally. Get medical attention immediately. Contact lenses should not be worn when working with this chemical.

- **Skin Exposure**

If chlorodiphenyl (54% chlorine) gets on the skin, immediately wash the contaminated skin using soap or mild detergent and water. If chlorodiphenyl (54% chlorine) soaks through the clothing, remove the clothing promptly and wash the skin using soap or mild detergent and water. If irritation persists after washing, get medical attention.

- **Breathing**

If a person breathes in large amounts of chlorodiphenyl (54% chlorine), move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

- **Swallowing**

When chlorodiphenyl (54% chlorine) has been swallowed, get medical attention immediately. If medical attention is not immediately available, get the afflicted person to vomit by having him touch the back of his throat with his finger or by giving him syrup of ipecac as directed on the package. This non-prescription drug is available at most drug stores and drug counters and should be kept with emergency medical supplies in the workplace. Do not make an unconscious person vomit.

- **Rescue**

Move the affected person from the hazardous exposure. If the exposed person has been overcome, notify someone else and put into effect the established emergency rescue procedures. Do not become a casualty. Understand the facility's emergency rescue procedures and know the locations of rescue equipment before the need arises.

SPILL, LEAK, AND DISPOSAL PROCEDURES

- Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until cleanup has been completed.
- If chlorodiphenyl (54% chlorine) is spilled or leaked, the following steps should be taken:

1. Remove all ignition sources.
2. Ventilate area of spill or leak.
3. Collect for reclamation or absorb in vermiculite, dry sand, earth, or a similar material.

- Waste disposal method:

Chlorodiphenyl (54% chlorine) may be disposed of by absorbing it in vermiculite, dry sand, earth or a similar material and disposing in a secured sanitary landfill.

ADDITIONAL INFORMATION

To find additional information on chlorodiphenyl (54% chlorine), look up chlorodiphenyl (54% chlorine) in the following documents:

- Medical Surveillance from the SCP
- Respiratory Protection from the SCP
- Personal Protection and Sanitation from the SCP
- NIOSH Criteria Document for Polychlorinated Biphenyls (September 1977)

These documents are available through the NIOSH Division of Technical Services, 4676 Columbia Parkway, Cincinnati, Ohio 45226.

REFERENCES

- American Conference of Governmental Industrial Hygienists: "Chlorodiphenyl (54% Chlorine)," *Documentation of the Threshold Limit Values for Substances in Workroom Air* (3rd ed., 2nd printing), Cincinnati, 1974.
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- Kirk, R., and Othmer, D.: *Encyclopedia of Chemical Technology* (2nd ed.), Interscience, New York, 1968.
- National Institute for Occupational Safety and Health, U.S. Department of Health, Education, and Welfare: *Criteria for a Recommended Standard . . . . Occupational Exposure to Polychlorinated Biphenyls*, HEW Publication No. (NIOSH) 77-225, U.S. Government Printing Office, Washington, D.C., 1977.
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- Patty, F. A. (ed.): *Toxicology*, Vol. II of *Industrial Hygiene and Toxicology* (2nd ed. rev.), Interscience, New York, 1963.

UNISON
TRANSFORMER
SERVICES, INC.

PCB TRANSFORMERS
REQUIREMENTS REVIEW
TOSCA 40 CFR Part 761

Five basic positive actions for PCB transformer owners to take
to avoid violations (and resulting fines) most often cited by EPA inspectors

Transformers whose name plates read Askarel, Inerteen, Pyranol, etc. are "PCB" items. Other liquid filled transformers with either name plates that do not indicate or name plates that show them as being filled with 10C (mineral) oil shall be deemed to be "PCB contaminated" until tested or proven otherwise.

THE FOLLOWING REQUIREMENTS APPLY TO "PCB" TRANSFORMERS:

1) LABEL - "M/L" (PCB YELLOW LABEL)

All PCB transformers must be marked with the yellow PCB labels on transformers and vault doors. Reference: Subpart C Part 761.40 J and 9 (j)

2) NOTIFY FIRE DEPARTMENT

The facility must register all PCB transformers with fire response personnel in writing with copies for your files, including the following:

A) Location
B) Dielectric Fluid
C) Name and telephone number of person to contact in the event of fire.

Reference: Part 761.30 (vi) of Fire Rule

3) REMOVE ALL COMBUSTIBLES - 5 METERS (16' 4")

Combustible materials must not be stored within 5 meters (16' 4") of a PCB transformer. Reference: Part 761.30 (viii) of Fire Rule

4) INSPECT 4 TIMES PER YEAR - LOG AND SIGN

Transformers must be inspected at least once every three months. Records must be signed and kept on file. Reference: Part 761.30 (ix) of Fire Rule

5) ANNUAL REPORT: DUE FIRST DAY OF JULY FOR PREVIOUS YEAR

An annual report is required (law effective since Oct. 1, 1984) to detail all PCB items at the facility such as transformers, capacitors, solids and liquids, including those items removed from the facility during the past year. These reports are due July 1st of the following year for the calendar year previous (sample attached).

Reference: Subpart J, Part 761.180

The applicable rules and regulations for PCB items is not limited to the above; however, we find that most fines that have been leveled by the EPA and the State (Department of Environmental Protection) evolve from the above five major requirements of the legislation.

9/86

[illegible] Place • Suite 200 • San Ramon CA 94583 • (415) 831-4833

UNISON
TRANSFORMER SERVICES, INC.

HOW TO IDENTIFY PCB TRANSFORMERS

The EPA estimates that over 150,000 PCB transformers are in use today. All PCB trnsformers are clearly labeled and the transformer owner should have no difficulty determining its status. To determine if a transformer is a PCB transformer, check the nameplate attached to the tank. If the nameplate describes the type of oil or coolant used in the transformer with the words **ASKAREL, AROCLOR,** or **NON-FLAMMABLE LIQUID,** the unit is a PCB transformer. Also, various transformer manufacturers used proprietary trade names for the coolant placed in their transformers. A list of these proprietary designations is shown below.

MANUFACTURER	DESIGNATION FOR PCB COOLANT
GENERAL ELECTRIC	PYRANOL
WESTINGHOUSE	INERTEEN
ALLIS-CHALMERS	CHLOREXTOL
KULMAN ELECTRIC	SAF-T-KUHL
McGRAW-EDISON	ELEMEX
NIAGARA TRANSFORMER	EEC-18
POWER ZONE TRANSFORMER	EEC-18
SANGAMO ELECTRIC	DIACLOR
WAGNER	NO-FLAMOL

Mineral Oil filled transformers may also be contaminated with PCB since the industry used common manufacturing, filling, and servicing for many years. The EPA does not require an owner of oil transformers to sample and test each one to determine their classification. Instead, all oil transformers manufactured before 1981 must be assumed to be "PCB Contaminated" unless sampled and shown to be otherwise. For the purposes of classification, the following EPA designations apply:

CLASSIFICATION	PCB CONCENTRATION
PCB	500 PPM AND GREATER
PCB CONTAMINATED	50 - 499 PPM
NON-PCB	0 - 49 PPM

Mineral Oil transformer owners who wish to determine the PCB status of their transformer can sample the dielectric fluid to determine the presence of PCBs and the concentration of PCBs.

Gas chromatography remains the accepted method for PCB analysis per EPA regulations and ASTM methods. The EPA will only accept results generated by this method when interacting with a transformer owner. Although this is an expensive analysis, it is recommended for any sample suspected of containing 50 ppm or greater PCBs, so as to eliminate any possibility of future conflict with the EPA.

Due to the expense associated with the gas chromatography analysis, several alternate methods are now available which are faster, portable and less expensive. It is stressed that these alternate methods are only suited for screening samples for approximate PCB concentrations.

The recommended PCB screening test is the CHLOR-N-OIL 50 PCB Screening Kit. This PCB measurement method requires about 5 minutes to perform. It gives a quick determination as to whether an oil is over 50 ppm in PCB or not. This test is useful in mineral oil dielectric fluid only.

111 Deerwood Place • Suite 200 • San Ramon CA 94583 • (415) 831-4833

(NAME OF PERSON PREPARING REPORT)

(NAME OF FACILITY)
(LOCATION)

PCB ANNUAL DOCUMENT FOR YEAR ENDING DECEMBER 31, ( )

	IN SERVICE	RECEIVED FOR STORAGE FOR DISPOSAL	STORED FOR DISPOSAL	STORED FOR RE-USE	TRANSPORTED FOR DISPOSAL OR STORAGE
CONTAINERS					
Total kg liquids					
Total kg solids					
Total kg capacitors					
Total kg by other item					
PCB TRANSFORMERS					
Total number					
Total kg PCB fluids in transformer					
Capacitors - large HV or LV					
Total Number					

Subpart J — Records and Reports

§761.180 Records and Monitoring
[49 FR 28172, July 10, 1984, effective Oct. 1, 1984]

This section contains recordkeeping and reporting requirements that apply to PCBs, PCB items, and PCB storage and disposal facilities that are subject to the requirements of the part.

(a) *PCBs and PCB items in service or prepared for disposal.* Beginning July 2, 1978, each owner or operator of a facility using or storing at one time at least 45 kilograms (99.4 pounds) of PCBs contained in PCB Container(s) or one or more PCB Transformers, or 10 or more PCB Large High or Low Voltage Capacitors shall develop and maintain records on the disposition of PCBs and PCB items. These records shall form the basis of an annual document prepared for each facility by July 1 covering the previous calendar year. Owners or operators with one or more facilities that use or store PCBs and PCB items in the quantities described above may maintain the records and documents at one of the facilities that is normally occupied for 8 hours a day, provided the identity of this facility is available at each facility using or storing PCBs and PCB items. The records and documents shall be maintained for

(Rev. 761.180(a))

35:0120

at least five years after the facility ceases using or storing PCBs and PCB items in the prescribed quantities. The following information for each facility shall be included in the annual document:

(1) The dates when PCBs and PCB items are removed from service, are placed into storage for disposal, and are placed into transport for disposal. The quantities of the PCBs and the PCB items shall be indicated using the following breakdown.

(i) Total weight in kilograms of any PCBs and PCB items in PCB Containers including the identification of container contents such as liquids and capacitors.

(ii) Total number of PCB Transformers and total weight in kilograms of any PCBs contained in the transformers, and

(iii) Total number of PCB Large High or Low Voltage Capacitors.

(2) For PCBs and PCB items removed from service, the location of the annual disposal or storage facility and the name of the owner or operator of the facility.

(3) Total quantities of PCBs and PCB items remaining in service at the end of the calendar year using the following breakdown:

(i) Total weight in kilograms of any PCBs and PCB items in PCB Containers, including the identification of container contents such as liquids and capacitors.

(ii) Total number of PCB Transformers and total weight in kilograms of any PCBs contained in the transformers, and

(iii) Total number of PCB Large High or Low Voltage Capacitors.

PCB ITEM	DATE REMOVED FROM SERVICE	DATE PLACED INTO STORAGE FOR DISPOSAL	DATE RECEIVED FOR STORAGE FOR DISPOSAL	NAME AND ADDRESS OF GENERATOR	DATE PLACED INTO TRANSPORT	DESTINATION NAME AND LOCATION
***Containers**						
kg liquids						
kg solids						
***PCB Transformers**						
Number						
kg liquid						
CAPICITORS						
Number						

*Specify items shown, as appropriate, using a separate line for each date.

NOTE: This is a sample of the things most likely expected by the EPA. You should contact your local EPA office to obtain their specific directions and requirements.

CAUTION

CONTAINS

PCBs

(Polychlorinated Biphenyls)

A toxic environmental contaminant requiring special handling and disposal in accordance with U.S. Environmental Protection Agency Regulations 40 CFR 761—For Disposal Information contact the nearest U.S. E.P.A. Office.

In case of accident or spill, call toll free the U.S. Coast Guard National Response Center: 800:424-8802

Also Contact _____

Tel. No. _____

PC-6 LABELMASTER CHICAGO, IL 60646

PCB Trade Names

Aroclor	Dykanol	Clophen
Diachlor	Inerteen	Fenclor
Elemex	Asbestol	DK
Hyvol	Chlorextol	Kennecnlor
No - Flamol	Aroclor B	Phenoclor
Saf-T-Kuhl	Clorinol	Solvol
Pyroclor	Clorphen	Diacolor
Therminol	Eucarel	Nepolin
Pyralene	Pyranol	MCS 1489
Santotherm	EEC-18	

Where are PCBs Used?

PCBs were introduced in 1929. Because of their fire-resistant nature, chemical stability, heat transfer capabilities, and superior electrical properties, they have a variety of uses.

Major uses include:

- Electrical insulating fluids commonly found in electrical equipment such as transformers, capacitors, electromagnets, etc.
- Heat transfer fluids; many heat exchangers ("hot systems") contain monochlorinated biphenyls (MCBs) or PCBs
- Hydraulic fluids used in high-temperature processes, such as aluminum diecasting

Other uses, including consumer items are:

- Elastomers (in paints, pigments, varnishes, and waxes)
- High-temperature lubricants (in compressors)
- Fire retardants
- Protective coatings for wood
- Inks
- Carbonless copy paper (older stocks still contain it; also older filed paper)
- Auto transmission fluid
- As a mounting medium in microscopic slides
- Research and development applications

ANNUAL DOCUMENT
PCBs AND PCB ITEMS

Unit Name _____
For Year Ending December 31, 19____
Location _____

	Item	ID No.	Size	Manufacturer	[1] Weight In Kilograms	[2] PCB Container Contents	Date Removed From Service	Date Placed Into Storage For Disposal	Date Placed In Transport For Disposal	Receiving Facility
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

This breakdown is part of the Annual Document. It should be used to list individually all PCBs and PCB Items removed from service. This Annual Document must be maintained for 5 years after the facility ceases using or storing PCBs and PCB Items

Footnote 1 -- In this column, list the weight in kilograms for PCBs, PCB Items in PCB Containers, and PCB Transformers. To convert lbs. to kg., multiply by .454; to convert gal. to kg., multiply gal. x 10 x .454

Footnote 2 -- In this column, indicate the contents of PCB Containers, i.e. (liquids, leaking capacitors or transformers or other PCB Items).

ATTACHMENT 8

ATTACHMENT 9

ANNUAL DOCUMENT
PXBs AND PCB ITEMS
REMAINING IN SERVICE

_____
Unit Name

For year ending December 31, 19_____

Location_____

1. Total weight (Kilograms) of any PCBs and PCB items in PCB containers:

PCB Liquids	_____	kg
PCB Capacitors	_____	kg
PCB Transformers	_____	kg
Other PCB Items	_____	kg
TOTAL:	_____	kg

2. Total number of PCB transformers:_____
   Total weight of PCB fluid contained in the transformers:
   _____kg

3. Total number of PCB large high voltage capacitors:_____

This summary is part of the Annual Document. This Annual Document must be maintained for 5 years after the facility ceases using or storing PCBs and PCB items.

ANNUAL DOCUMENT
PCBs AND PCB ITEMS
REMOVED FROM SERVICE

_____
Utility Name

For Year Ending December 31, 19 ___

Location _____

1. Total weight (Kilograms) of any PCBs and PCB Items in PCB Containers:

PCB Liquids	_____	kg
PCB Capacitors	_____	kg
PCB Transformers	_____	kg
Other PCB Items	_____	kg
TOTAL:	_____	kg

PCBs and PCB Items, removed from service were initially located at the following disposal or storage facility:

Name of Facility _____

Facility Location _____

Facility Owner/Operator _____

2. Total Number of PCB Transformers: _____

Total weight of PCB fluid contained in the transformers: _____ kg

3. Total number of PCB Large High or Low Voltage Capacitors: _____

4. Total number of PCBs and PCB Items:
   (a) Received into storage for disposal: _____
   (b) Transferred to other storage or disposal facilities: _____
   (c) Remaining in storage for disposal: _____

5. Total number of PCB Articles or PCB Equipment not in PCB Containers:

   (a) Received into storage for disposal: _____
   (b) Transferred to other storage or disposal facilities: _____
   (c) Remaining in storage for disposal: _____

Submitted by: Name: _____
Title: _____
Date: _____

This summary is part of the Annual Document. This Annual Document must be maintained for 5 years after the facility ceases using or storing PCBs and PCB Items.

QUARTERLY RECORD
OF
PCB TRANSFORMER INSPECTION

Check One

*Jan.-March Report ____
Apr.-June Report ____
July-Sept. Report ____
Oct.-Dec. Report ____

INSPECTION RESULTS				SERVICING RESULTS					
/ID Number Location	Name of Inspector	[1] Date	No Leak	If Found Leaking Location	Estimate of Fluid Released	Remarks	[2] Date	[3] Description	[4] Results

[1] Date of Inspection. The quarterly inspections may take place any time during the three month periods, as long as there is a minimum of 30 days between inspections.
[2] Date of any clean up, containment, repair, or replacement (clean up must be initiated no later than 48 hours of its discovery.)
[3] Description of any clean up, containment, or repair performed.
[4] Results of containment and daily inspection required for uncorrected active leaks.

* This inspection record must be maintained for 3 years after disposal of the transformer.

Phil Williams, Environmental Director
City of Spokane
City Hall - Skywalk Level
Spokane, WA 99201