US EPA RECORDS CENTER REGION 5
1009768

PPG Industries, Inc. 260 Kappa Drive Pittsburgh, Pennsylvania 15238 (412) 963-5800

L. N. Streff
Manager
Environmental Engineering and Control
Coatings and Resins

OVERNIGHT CERTIFIED MAIL/RETURN RECEIPT REQUESTED

December 10, 1985

RECEIVED
DEC 12 1985
SOLID WASTE BRANCH
U.S. EPA, REGION V

Mr. Chuck Slaustas
Technical, Permits & Compliance Section
US EPA 5 HW-13
230 South Dearborn Street
Chicago, IL 60604

Re: PPG Industries, Inc. - WID059972935
Oak Creek, Wisconsin Manufacturing Plant
Part B Application Revisions

Dear Mr. Slaustas:

Attached are our comments and revisions to the Part B application addressing the deficiencies summarized by Wisc.-DNR in Mr. O'Hara's September 11, 1985 letter to you. Enclosed are two sets of the revised pages, punched and identified by section and page to make replacement of the original pages easier. Three sets are also being sent to Wisconsin DNR. Please note that our 30-day compliance period did not start until November 11, 1985; PPG did not receive the notice until November 12.

Please address any further questions directly to me at the above address or contact me at (412) 963-5827.

Sincerely,

Christine M. Babka

Christine M. Babka
Environmental Engineer

cc: L. N. Streff/file-Oak Creek Part B Application
D. Scudder
Richard O'Hara, Chief
Bureau of Solid Waste Management
Wisconsin Department of Natural Resources
Box 7921 101 South Webster
Madison, WI 53707

COPY

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Date: 12/10/85
Revision No.: 1

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PPG Industries
Coatings and [illegible]ns
Facility Name Oak Creek Plant
ID No. WID059972935
Date Part B Received 7/10/85
Date Completeness Review Due _____

RCRA PART B PERMIT APPLICATION CHECKLIST

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
A. PART A APPLICATION		Y			Section A
B. FACILITY DESCRIPTION					
B-1	General description	Y			Section B-1
B-2	Topographic map	Y			Drawing B-2-1
B-2a	General requirements	Y			Sections B, C, F, G, H
B-2b	Additional requirements for land disposal facilities			NA	
B-3b	Floodplain standard	Y			Section B-3b
B-3b(1)	Demonstration of compliance	Y			Section B-3b
B-3b(1)(a)	Flood proofing and flood protection measures			NA	
B-3b(1)(b)	Flood plan			NA	
B-3b(2)	Waiver			NA	
B-3b(3)	Plan for future compliance with floodplain standard			NA	
B-4	Traffic information	Y			Section B-4
C. WASTE CHARACTERISTICS					
C-1	Chemical and physical analyses, including sampling/analysis methods	Y			See Section C-1
C-1a	Containerized wastes	Y			
C-1b	Waste in tanks	Y			
C-1c	Waste in piles			NA	

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
C-1d	Landfilled wastes			NA	
C-1e	Wastes incinerated and wastes used in performance tests			NA	
C-1f	Wastes to be land treated			NA	
C-2	Waste analysis plan	Y			See Section C-2
C-2a	Parameters and rationale	Y			
C-2b	Test methods	Y			
C-2c	Sampling methods	Y			
C-2d	Frequency of analyses	Y			
C-2e	Additional requirements for wastes generated off-site	Y			
C-2f	Additional requirements for ignitable, reactive or incompatible wastes	Y			

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D. PROCESS INFORMATION					
D-1	Containers				Sections D-1, D-2
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D-1a(2)	Container management practices	Y			Sections D-1a(2), D-2a(2)
D-1a(3)	Secondary containment system design and operation				Sections D-1a(3), D-2a(3)
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D-1a(3)(b)	Containment system drainage	Y			Sections D-1a(3), D-2a(3)
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D-1b	Containers without free liquid				Sections D-1b, D-2b
D-1b(1)	Test for free liquids	Y			Sections D-1b, D-2b
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D-1b(4)	Container storage area drainage	Y			Sections D-1a(3), D-2a(3)

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D-2	Tanks				Sections D-3, D-4, D-5
D-2a	Description of tanks	Y			Sections D-3a, D-4a, D-5a
D-2b	Tank corrosion and erosion	Y			Sections D-3b, D-4b, D-5b
D-2c	Tank management practices	Y			Sections D-3c, D-4c, D-5c

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D-3	Waste piles				Not Applicable

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D-4	Surface impoundments				Not Applicable

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D-5	Incinerators				Not Applicable

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D-6	Landfills				Not Applicable

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
D-7	Land treatment				Not Applicable

	Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
E. GROUNDWATER MONITORING				Not Applicable

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F-2b(2)	Tank inspection				Section F-2b(2)
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F-2b(2)(c)	Tank overfilling control equipment	Y			Section F-2b(2)
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		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
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F-2b(4)(c)	Wind dispersal system			NA	
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F-2b(6)(b)	Incinerator waste feed cut-off system and associated alarms			NA	
F-2b(7)	Landfill inspection				Not Applicable

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
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F-2b(7)(b)	Leak detection system	___	___	NA	
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F-5k	Management of ignitable or reactive wastes placed in landfills			NA	
F-5l	Management of incompatible wastes placed in landfills			NA	

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
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G-3	Implementation	Y			Section G-3
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G-4k(1)	Double-lined waste piles				Not Applicable

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
G-4k(1)(a)	Notification			NA	
G-4k(1)(b)	Remedial action			NA	
G-4k(1)(c)	Detection monitoring program			NA	
G-4k(2)	Inspectable piles				
G-4k(2)(a)	Notification			NA	
G-4k(2)(b)	Remedial action			NA	
G-4k(2)(c)	Detection monitoring program			NA	
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G-41(1)(b)	Containing leaks			NA	
G-41(1)(c)	Stopping leaks			NA	
G-41(1)(d)	Preventing catastrophic failure			NA	
G-41(1)(e)	Emptying the impoundment			NA	
G-41(2)	Certification			NA	
G-41(3)	Repairs as a result of sudden drop			NA	
G-41(3)(a)	Existing portions of surface impoundment			NA	
G-41(3)(b)	Other portions of surface impoundment			NA	
G-41(4)	Double-lined surface impoundments				
G-41(4)(a)	Notification			NA	
G-41(4)(b)	Remedial action			NA	

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
G-41(4)(c)	Detection monitoring program			NA	
G-4m	Incineration spills and leakage			NA	
G-4n	Landfill leakage				Not Applicable
G-4n(1)	Notification			NA	
G-4n(2)	Remedial action			NA	
G-4n(3)	Detection monitoring program			NA	
G-5	Emergency equipment	Y			Section G-5
G-6	Coordination agreements	Y			Section G-6
G-7	Evacuation plan	Y			Section G-7
G-8	Required reports	Y			Section G-8
H. PERSONNEL TRAINING					
H-1	Outline of the training program				Section H-1
H-1a	Job title/job description	Y			Section H-1a
H-1b	Training content, frequency, and techniques	Y			Section H-1b
H-1c	Training director	Y			Section H-1c
H-1d	Relevance of training to job position	Y			Section H-1d
H-1e	Training for emergency response	Y			Section H-1e
H-2	Implementation of training program	Y			Section H-2
I. CLOSURE AND POST-CLOSURE REQUIREMENTS					
I-1	Closure plans				Section I-1
I-1a	Closure performance standard	Y			Section I-1a

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
I-1b	Partial and final closure activities	Y			Section I-1b
I-1c	Maximum waste inventory	Y			Section I-1c
I-1d	Inventory removal, disposal or decontamination of equipment	Y			Section I-1d
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I-1d(4)	Closure of surface impoundments			NA	
I-1d(5)	Closure of incinerators			NA	
I-1d(6)	Closure of land treatment facilities				Not Applicable
I-1d(6)(a)	Continuance of treatment			NA	
I-1d(6)(b)	Vegetative cover			NA	
I-1e	Closure of disposal units			NA	
I-1e(1)	Disposal impoundments			NA	
I-1e(1)(a)	Elimination of liquids			NA	
I-1e(1)(b)	Waste stabilization			NA	
I-1e(2)	Cover design			NA	
I-1e(3)	Minimization of liquid migration			NA	
I-1e(4)	Maintenance needs			NA	
I-1e(5)	Drainage and erosion			NA	
I-1e(6)	Settlement and subsidence			NA	
I-1e(7)	Cover permeability			NA	

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
I-1e(8)	Freeze/thaw effects			NA	
I-1f	Schedule for closure	Y			Section I-1e
I-1g	Extensions for closure time	Y			Section I-1e
I-2	Post-closure plan				Section I-2
I-2a	Inspection plan			NA	
I-2b	Monitoring plan			NA	
I-2c	Maintenance plan			NA	
I-2d	Land treatment			NA	
I-3	Notice in deed	Y			Section I-3
I-4	Closure cost estimate	Y			Section I-4
I-5	Financial assurance mechanism for closure				Section I-5
I-5a	Closure trust fund			NA	
I-5b	Surety bond				Not Applicable
I-5b(1)	Surety bond guaranteeing payment into a closure fund			NA	
I-5b(2)	Surety bond guaranteeing performance of closure	Y			Section I-5
I-5c	Closure letter of credit			NA	
I-5d	Closure insurance			NA	
I-5e	Financial test and corporate guarantee for closure			NA	
I-5f	Use of multiple financial mechanisms			NA	
I-5g	Use of financial mechanism for multiple facilities			NA	

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
I-6	Post-closure cost estimate	N			Section I-6
I-7	Financial assurance mechanism for post-closure care				Section I-7
I-7a	Post-closure trust fund			NA	
I-7b	Surety bond				Not Applicable
I-7b(1)	Surety bond guaranteeing payment into a post-closure trust fund			NA	
I-7b(2)	Surety bond guaranteeing performance of post-closure care			NA	
I-7c	Post-closure letter of credit			NA	
I-7d	Post-closure insurance			NA	
I-7e	Financial test and corporate guarantee for post-closure care			NA	
I-7f	Use of multiple financial mechanisms			NA	
I-7g	Use of a financial mechanism for multiple facilities			NA	
I-8	Liability requirements				Section I-8
I-8a	Coverage for sudden accidental occurrences				Section I-8
I-8a(1)	Endorsement or certification				Section I-8
I-8a(2)	Financial test for liability coverage			NA	
I-8a(3)	Use of multiple insurance mechanisms			NA	
I-8b	Coverage for nonsudden accidental occurrences				Section I-8
I-8b(1)	Endorsement or certification			NA	

		Provided (Y/N)	Adequate (Y/N)	Not Applicable	Comments
I-8b(2)	Financial test for liability coverage			NA	
I-8b(3)	Use of multiple insurance mechanisms			NA	
I-8c	Request for variance			NA	
I-9	State mechanisms				Section I-5
I-9a	Use of state-required mechanism	Y			Section I-5
I-9b	State assumption of responsibility			NA	
J. OTHER FEDERAL LAWS		Y			Section J
K. PART B CERTIFICATION		Y			Section K

PPG Industries, Inc.
Oak Creek, Wisconsin
Manufacturing Plant
EPA ID# WID059972935

Part A Revisions
July 10, 1985

(Original Submitted 11/13/80, Revisions 3/13/81, 10/23/81, 5/5/82)

Form 1

1. Item IV.A. Facility Contact.

   The new facility contact is Mr. Dan Scudder.

2. Item VIII.D-H. Operator Information.

   Updated information is provided.

Form 3

A. Page 1 of 5. Item III. Process Design Capacity.

   Page 5 of 5. Facility Drawing and Index.
   (Refer to Original and Revisions noted above.)

Upon reviewing the present waste management operations, we determined that many operations were exempt from regulation, some process codes did not reflect actual operations, and several processes needed to be included.

1. Previous Line 1. S02. Tank Storage - 91,000 gallons.

   The original 1980 application identified the following as tank storage:

   a.) Item 2 - Two Sludge Storage Boxes - 2000 gallon each.

   In 1984 these boxes were emptied and decontaminated by PPG and returned to their owner, Waste Management of Wisconsin.
   (delete 4000 gallons - S02)

   b.) Item 3 - Two Organic Waste Storage Tanks - 6000 gallon each.

   These tanks are now used for blending (treatment) of compatible organic wastestreams rather than storage longer than 90 days.
   (delete 12,000 gallons - S02; add 12,000 gal/day - T01; new Items 2 and 3)

c.) Item 5 - Three Wastewater Treatment/Storage Tanks - 6000 gallon each.

These tanks were re-designated treatment tanks in the May 5, 1982 revision.
(deleted 18,000 gallon - S02; added 510 gal/day - T01)

These tanks are actually exempt from hazardous waste regulation because they pretreat wastewaters prior to discharge to a Publically-Owned Treatment Works (POTW). See 40 CFR 265.1(c)(10), 264.1(g)(6) and 260.10 Definition of a wastewater treatment unit.
(delete 510 gal/day - T01)

d.) Item 6 - Two Waste Solvent Storage Tanks - 30,000 gallon each.

- One Waste Solvent Storage Tanks - 15,000 gallon each.

Each tank is actually 15,000 gallons. These tanks have always been used for storage less than 90 days, therefore, are not regulated.
(delete 45,000 gallons - S02)

Line 1. Total tank storage capacity is now 0 gallons. Line 1 is eliminated.

2. Previous Line 2. T01. Treatment Tank Capacity.

a.) Item 4 - Wastewater Decanter - 2500 gallon.

The treatment capacity was changed to 100,000 gal/day in the 10/23/81 revision.

This tank is actually exempt from hazardous waste regulation because it pretreats wastewaters prior to discharge to a POTW. See 40 CFR 265.1(c)(10), 264.1(g)(6) and 260.10 Definition of a wastewater treatment unit.
(delete 100,000 gal/day - T01)

b.) Item 5 - Three Wastewater Treatment/Storage Tanks - 6000 gallon each.

See previous discussion in Item 1.c.
(delete 510 gal/day - T01)

c.) Item 7 - Stormwater Interceptor Basin - 41,295 gallon.

The treatment capacity was removed in the 10/23/81 revision since the basin is used to collect stormwater runoff which is discharged under either Section 402 (NPDES) or 307(b) (POTW) of the Clean Water Act. See 40 CFR 264.1(c)(10), 264.1(g)(6) and 260.10 Definition of a wastewater treatment unit.

d.) Item 9 - Tank Farm Underdrain Sump - 3770 gallon.

The treatment capacity was changed to 10,000 gal/day in the 10/23/81 revision.

This sump is actually exempt from hazardous waste regulation for the same reason as Items 4 and 5.
(delete 10,000 gal/day - T01)

f.) Item 3 - Two Organic Waste Storage Tanks - 6000 gallon each.

See previous discussion in Item 1.b.
(add 12,000 gal/day - T01; new Items 2 and 3)

g.) New Item - One Water-Base Sludge Treatment Tank - 10,000 gallon.
(2,000 gal/day)

This tank was added in 1981 as an accumulation tank for wastewater treatment sludge. The plant now also wishes to use this tank for blending (treatment) of compatible water-base wastestreams. This blending was done previously in the wastewater treatment tanks which are now exempt (Item 5). This 2000 gal/day increase in treatment tank capacity is offset by the overall 110,510 gal/day reduction. The plant should be allowed to operate this tank under interim status per 40 CFR 270.72.
(add 2000 gal/day; new Item #1)

h.) New Item - One Organic Waste Treatment Tank - 6000 gal/day.

The plant wishes to use this production tank to increase its blending (treating) capabilities for compatible organic wastestreams. These wastes will be transferred to the organic waste tanks at the waste treatment center (Item 3), where blending is now done. The 6000 gal/day increase in treatment tank capacity is offset by the 110,510 gal/day reduction. The plant should be allowed to operate this tank under interim status per 40 CFR 270.72.
(add 6000 gal/day; new Item #6)

New Line 1. Total treatment tank capacity is now 20,000 gallons/day.

3. Previous Line 3. S01. Container Storage - 165,000 gallons.

a.) Item 10 - 120,000 sq. ft. Waste Drum Storage.

This was the container storage area designated on the original application. Two proposed locations were also designated. The plant has always used only a portion of this storage area, and only in front of the Waste Treatment Center - 40-1/2 ft x 50 ft 300 drums.
(delete 120,000 sq. ft.; add 2025 sq. ft. and 16,500 gallons; New Item #4.)

b.) Item 11 - 6400 sq. ft. Waste Drum Storage.

This area was changed on 3/13/81 from a future area to an existing area. The total container storage capacity was also changed to 165,000 gallons. The plant upgraded this area and a larger adjacent area used for product and raw material storage in late 1981. At that time, the waste storage area was increased to 100' x 140' or 14,000 sq. ft. to provide for aisle spacing. The area holds 2700 drums or 148,500 gallons.
(delete 6400 sq. ft.; add 14,000 sq. ft.; New Item #5)

New Line 2. Total container storage capacity should remain 165,000 gallons but area is reduced to 16,025 sq. ft.

4. New Line 3. T04. 5000 gallons/day.

This is a new process. The plant removes free liquids from containers by adding absorbent. This addresses 40 CFR 265.1(c)(13) and 264.1(g)(10). This process is performed in the container storage areas.

5. Page 5 of 5. Item V. Facility Drawing (New).

The Facility Drawing and Index is updated to reflect all of the changes addressed.

B. Page 3 of 5. Item IV. Description of Hazardous Wastes.

This section was revised several times previously. The new pages reflect all revisions. Process codes are also updated to reflect the changes in Item III.

C. Page 4 of 5. Item VI. Photographs.

New photographs are provided with updated legends.

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S													T/A	C
F	W	I	D	0	5	9	9	7	2	9	3	5		D
1	2	-									13		14	15

LABEL ITEMS

- II. EPA I.D. NUMBER
- III. FACILITY NAME
- V. FACILITY MAILING ADDRESS
- VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area*(s)* below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold—faced terms.**

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X		X
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: P P G I N D U S T R I E S I N C

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 S C U D D E R D A N E N V I R O N M E N T A L E N G R	4 1 4 | 7 6 4 | 6 0 0 0

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX: 3 10800 SOUTH 13TH STREET

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 O A K C R E E K	W I	5 3 1 5 4

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER: 5 10800 SOUTH 13TH STREET

B. COUNTY NAME: M I L W A U K E E

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 O A K C R E E K	W I	5 3 1 5 4	

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
2851 (specify) Paint Manufacturing	2821 (specify) Resin Manufacturing
C. THIRD	**D. FOURTH**
(specify)	(specify)

VIII. OPERATOR INFORMATION

A. NAME

PPG INDUSTRIES INC

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

P (specify)

D. PHONE (area code & no.)

A 412 434 3131

E. STREET OR P.O. BOX

ONE PPG PLACE

F. CITY OR TOWN

PITTSBURGH

G. STATE

PA

H. ZIP CODE

15272

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
9 N WI-0029149-2	9 P
B. UIC (Underground Injection of Fluids)	**E. OTHER (specify)**
9 U	9 (specify)
C. RCRA (Hazardous Wastes)	**E. OTHER (specify)**
9 R	9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

This facility is a manufacturing plant that makes synthetic resins for industrial and retail trade sales coatings and also makes pigmented industrial and trade sales coatings.

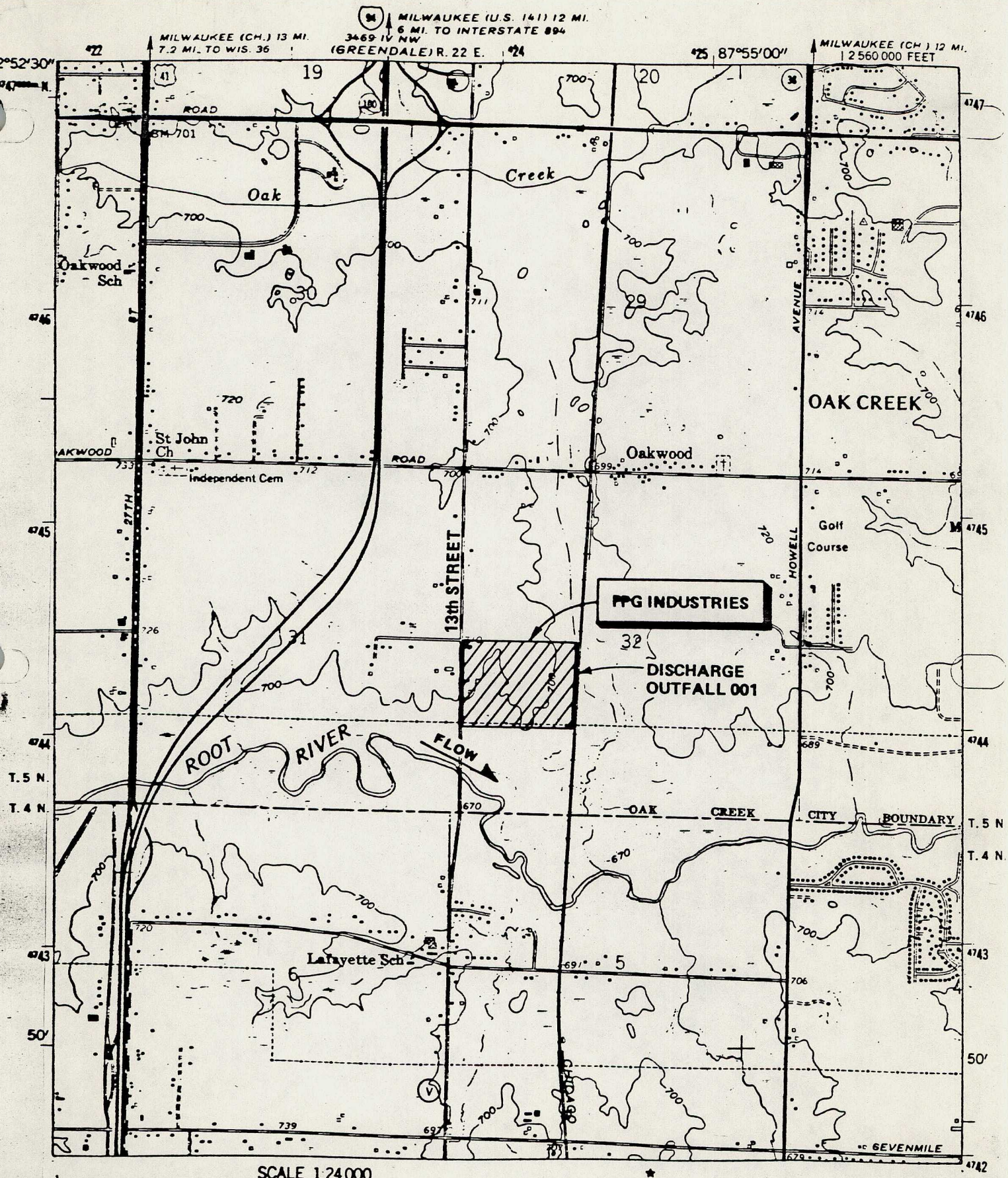
XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Malcolm G. Slaney Group Vice-President PPG Coatings and Resins	Malcolm G. Slaney	July 10, 1985

COMMENTS FOR OFFICIAL USE ONLY

C



MAP SOURCE: U.S.G.S. TOPOGRAPHIC MAP
(FRANKSVILLE QUADRANGLE)

FIGURE 1

PPG PLANT LOCATION

MAP SOURCE: COMPOSITE OF OAK CREEK, WI TOPOGRAPHICAL MAPS -

NW 1/4 SEC 5, T4N, R22E
NE 1/4 SEC 31, T5N, R22E
SE 1/4 SEC 31, T5N, R22E
SW 1/4 SEC 32, T5N, R22E
NW 1/4 SEC 32, T5N, R22E
SE 1/4 SEC 32, T5N, R22E

MN GN
1° 20'

200 100 0 200 400 600 800
SCALE IN FEET

NOTE: CONTOUR ELEVATIONS ARE REFERENCED TO THE LEVEL OF LAKE MICHIGAN. ELEV. ABOVE SEA LEVEL = ELEV. SHOWN + 580.56 FEET.

MAPPING PROVIDED BY THE CITY OF OAK CREEK, WI AND USED WITH THEIR APPROVAL.

LAB
ADMINISTRATION OFFICE
PAINT MANUFACTURING
RESIN PLANT
DISCHARGE OUTFALL 001
UNNAMED DRAINAGE DITCH
FLOW
PLANT FENCE LINE
PPG PROPERTY LINE
1/4 MILE BOUNDARY
ROOT RIVER
FLOW
ROOT RIVER

LOCATION OF DRINKING WATER WELLS
SURFACE WATERS

FIGURE 2
PPG PLANT & SURROUNDING DRINKING WATER WELLS

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004

FORM 3 RCRA

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S												T/A	C
F	W	I	D	0	5	9	9	7	2	9	3	5		1
1	2										13	14	15	

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS
23	24 - 29	

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

☐ 71 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*

C	YR.	MO.	DAY
8	7 4	1 2	1 7
15	73 74	75 76	77 78

☐ 71 2. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN

YR.	MO.	DAY
73 74	75 76	77 78

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

☒ 72 1. FACILITY HAS INTERIM STATUS

☐ 72 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES — CODES AND DESIGN CAPACITIES

A. PROCESS CODE — Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code*(s)* in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C).*

B. PROCESS DESIGN CAPACITY — For each code entered in column A enter the capacity of the process.

1. AMOUNT — Enter the amount.
2. UNIT OF MEASURE — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below):* A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S													T/A	C
C	D	U	P											1
1	2										13	14	15	

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
	16 - 18	19 - 27	28	29 - 32
X-1	S 0 2	600	G	
X-2	T 0 3	20	E	
1	T 0 1	20,000	U	
2	S 0 1	165,000	G	
3	T 0 4	5,000	U	
4				

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
	16 - 18	19 - 27	28	29 - 32
5				
6				
7				
8				
9				
10				

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

Line 4 - T04. Removal of free liquids in containers by addition of absorbents or solidification agents.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each **listed waste** entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each **characteristic** or **toxic contaminant** entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each **listed** hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate **all** the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				*included with above*

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)															FOR OFFICIAL USE ONLY													
W	W	I	D	0	5	9	9	7	2	9	3	5	T/A	C	W	DUP			T/A	C	2	DUP						
1	2											13	14	15	1	2		13	14	15		23		26				

V. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F003	12,000	T	S01 T01	Spent Solvent, Paint and Resin
2	F005				Included with above
3	F003	3,000	T	S01 T01	Solvent Recovery Still Sludge
4	F005				Included with above
5	F003	130	T	S01 T01	Cationic Distillate - MIBK
6	D001	530	T	S01 T01	Solvent-Base Paint Waste and Filters
7	D007				Included with above
8	D008				" " "
9	D001	146	T	S01 T01 T04	Water-Base Paint Waste and Filters
10	D007				Included with above
11	D008				" " "
12	D009				" " "
13	D001	416	T	S01 T01 T04	Resin Waste and Filters
14	D003				Included with above
15	D001	12	T	S01 T01 T04	Laboratory Paint and Resin Wastes
16	D002				Included with above
17	D003				" " "
18	D004				" " "
19	D005				" " "
20	D006				" " "
21	D007				" " "
22	D008				" " "
23	D009				" " "
24	D001	4,684	T	*	Resin Plant Wastewaters *exempt treatment
25	D002				Included with above
26					

EPA Form 3510-3 (6-80)

CONTINUE ON REVERSE

(enter "A", "B", "C", etc. behind the "3" to identify photocopied pages)

Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)	FOR OFFICIAL USE ONLY
S W W I D 0 5 9 9 7 2 9 3 5 — T/A: — C: 1	S W DUP — T/A: — C: 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	D001	70	T	S01 T01 T04	Wastewater Treatment Sludges
2	D007				Included with above
3	D008				" " "
4	D009				" " "
5	D007	200	T	S01	Paint Plant Baghouse Dust
6	D008				Included with above
7	D009				" " "
8	****	100	T	S01	Resin Plant Baghouse Dust Declared Hazardous
9	D001	520	T	S01	Paint Plant Wastewaters
10	D007				Included with above
11	D008				" " "
12	D009				" " "
13	D001	250	T	S01	Caustic Cleaning Wastes
14	D002				Included with above
15	D007				" " "
16	D008				" " "
17	D009				" " "
18	D001	13	T	S01 T01	Caustic Sludges
19	D007				Included with above
20	D008				" " "
21	D009				" " "
22	D001	680	T	*	Treated Wastewater Supernate *presently discharged to POTW directly
23	D007				Included with above
24	D008				" " "
25	D009				" " "
26					

EPA Form 3510-3 (6-80)

CONTINUE ON REVERSE

Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER *(enter from page 1)*: S W W I D 0 5 9 9 7 2 9 3 5 — T/A: — C: 1

FOR OFFICIAL USE ONLY: S W DUP — T/A: — C: 2 DUP

V. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

LINE NO.	A. EPA HAZARD. WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
1	U008	1	P	S01 T01	Raw Material
2	U031	1	P	S01 T01	" "
3	U056	1	P	S01 T01	" "
4	U057	1	P	S01 T01	" "
5	U069	1	P	S01	" "
6	U080	1	P	S01 T01	" "
7	U107	1	P	S01	" "
8	U112	1	P	S01 T01	" "
9	U113	1	P	S01 T01	" "
10	U122	1	P	S01	" "
11	U123	1	P	S01	" "
12	U140	1	P	S01 T01	" "
13	U147	1	P	S01	" "
14	U154	1	P	S01 T01	" "
15	U159	1	P	S01 T01	" "
16	U161	1	P	S01 T01	" "
17	U162	1	P	S01	" "
18	U190	1	P	S01	" "
19	U197	1	P	S01	" "
20	U220	1	P	S01 T01	" "
21	U223	1	P	S01	" "
22	U239	1	P	S01 T01	" "
23	P092	1	P	S01	" "
24	U002	1	P	S01 T01	" "
25	U007	1	P	S01	" "
26					

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. *(enter from page 1)*

S F												T/A	C 6	
1	2	-									13	14	15	

V. FACILITY DRAWING

All **existing** facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground–level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*	LONGITUDE *(degrees, minutes, & seconds)*
65 66 | 67 68 | 69 - 71	72 - 74 | 75 76 | 77 - 79

VIII. FACILITY OWNER

☐ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code & no.)*
C E — 15 16 - 55	56 - 58 | 59 - 61 | 62 - 65

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
C F — 15 16 - 45	C G — 15 16 - 40	41 42	47 - 51

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)		FOR OFFICIAL USE ONLY		
S W	W I D 0 5 9 9 7 2 9 3 5	T/A C 1	S W DUP	T/A C 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	D001	1,000	P	S01 T01	Offsite wastes from PPG Product Distribution Centers
2	D006				Included with above
3	D007				" " "
4	D008				" " "
5	D009				" " "
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
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EPA Form 3510-3 (6-80)

CONTINUE ON REVERSE

(enter "A", "B", "C", etc. behind the "3" to identify photocopied pages)

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTES *(continued)*

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. *(enter from page 1)*

S F	W	I	D	0	5	9	9	7	2	9	3	5	T/A	C 6
1 2	-											13	14	15

V. FACILITY DRAWING

All **existing** facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).*

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground—level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).*

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE *(degrees, minutes, & seconds)*			LONGITUDE *(degrees, minutes, & seconds)*		
8 7	5 5	0 4 5	4 2	5 2	0 3 9
65 66	67 68	69 - 71	72 - 74	75 76	77 - 79

VIII. FACILITY OWNER

[X] A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. *(area code & no.)*
C E	- -
15 16 - 55	56 - 58 59 - 61 62 - 65

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
C F	C G		
15 16 - 45	15 16 - 40	41 42	47 - 51

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
Malcolm G. Slaney Group Vice-President PPG Coatings and Resins	Malcolm G. Slaney	July 10, 1985

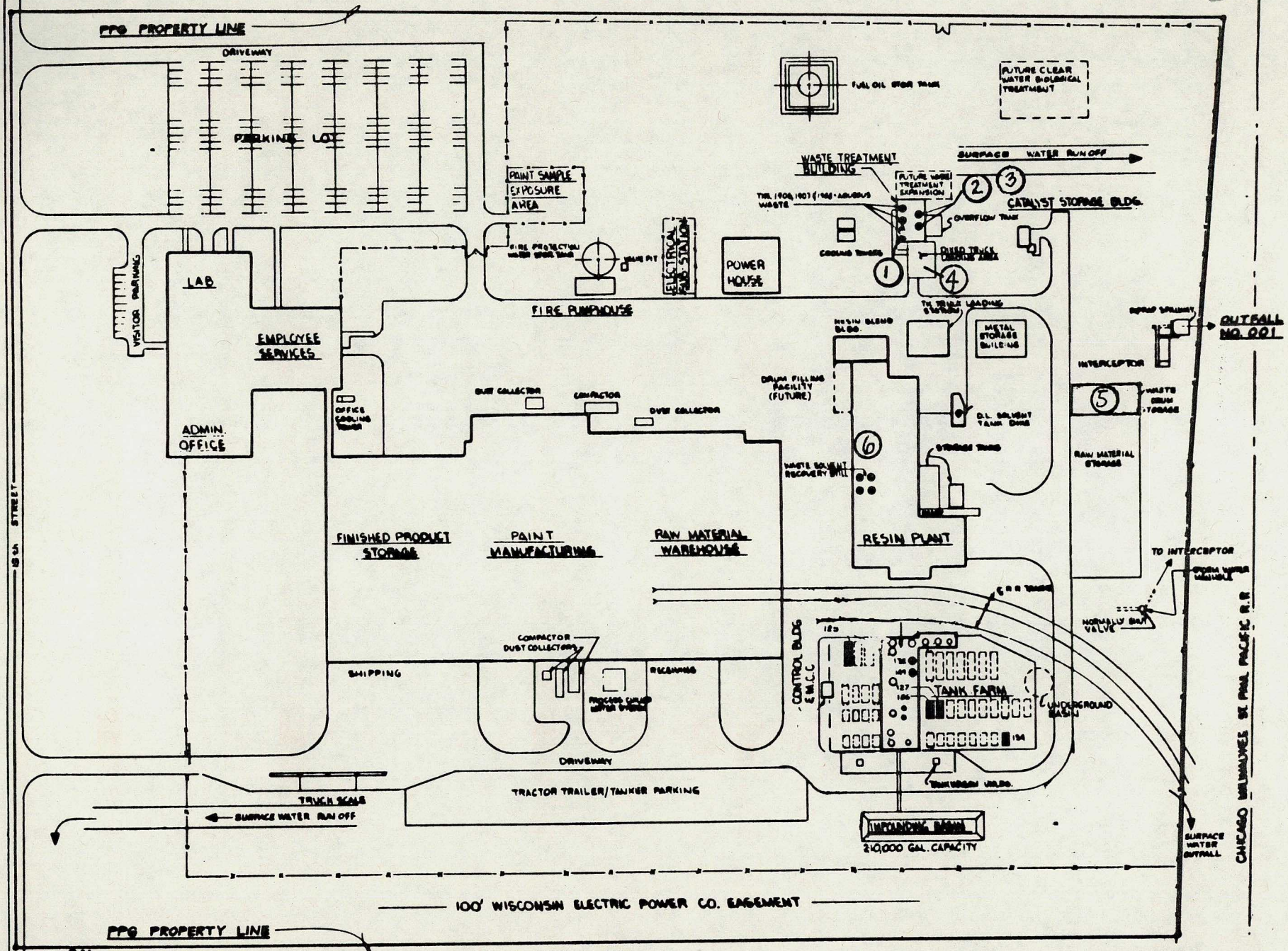
X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME *(print or type)*	B. SIGNATURE	C. DATE SIGNED
Malcolm G. Slaney Group Vice-President PPG Coatings and Resins	Malcolm G. Slaney	July 10, 1985

Form #3 ITEM V FACILITY DRAWING INDEX

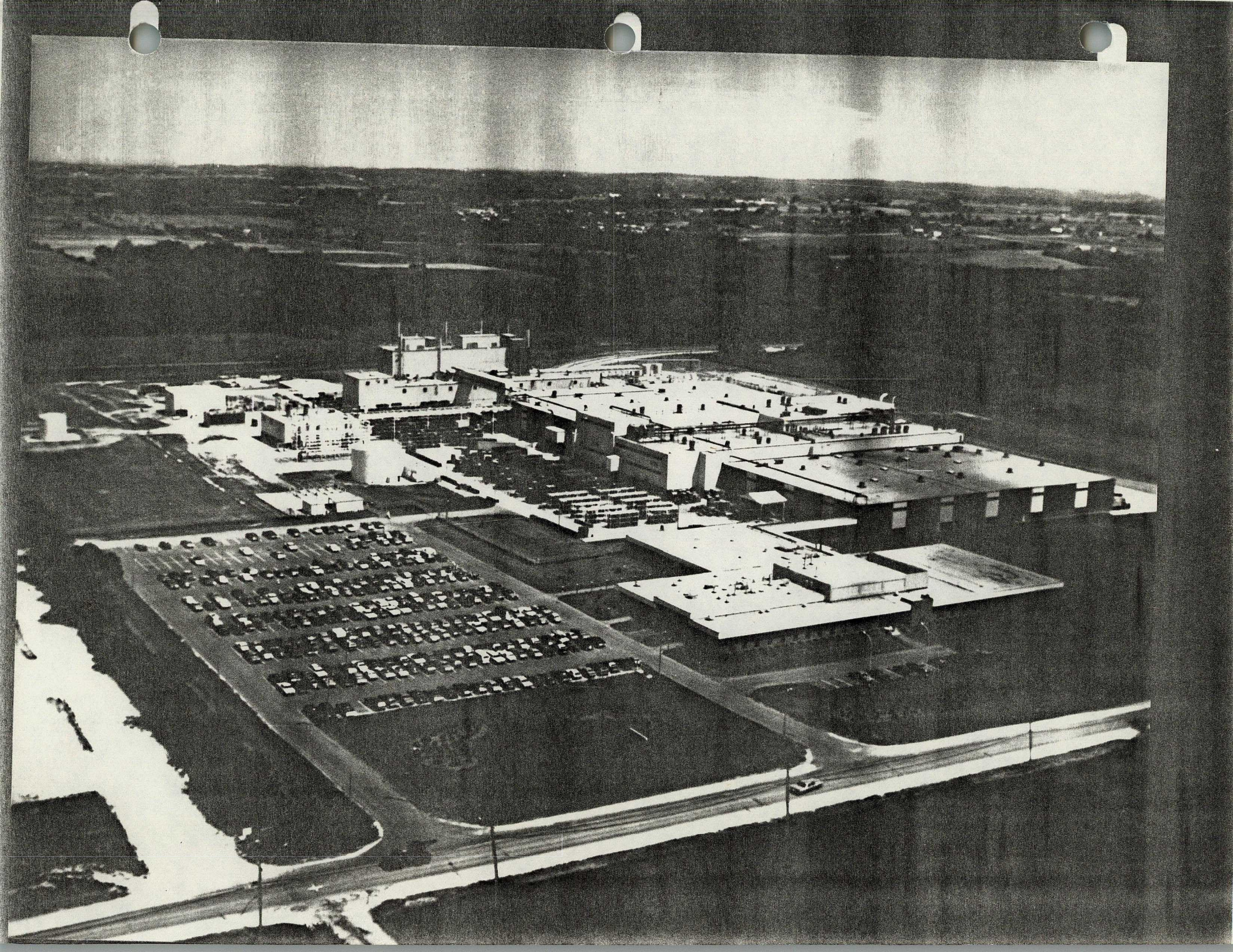
Item #1	One Water-Base Sludge Treatment Tank - 10,000 Gallon - T01
Items #2 & #3	Two Organic-Waste Treatment Tanks - 6000 Gallon each - T01
Item #4	40-1/2 ft X 50 ft Container Storage/Treatment Area - 300 drum volume equivalent - S01, T04
Item #5	100 ft X 140 ft Container Storage/Treatment Area - 2700 drum volume equivalent - S01, T04
Item #6	One Organic-Waste Treatment Tank - 6000 Gallon each - T01



PPG PLANT SITE WITH HAZARDOUS WASTE MANAGEMENT FACILITIES

Continued from page 4.

V. FACILITY DRAWING (see page 4)



VPD SHEET PROTECTOR M-198

VPD SHEET PROTECTOR M-198



Item 1
Water-Base Sludge Treatment Tank -
6000 Gallon - T01



Items 2 and 3
2 - Organic Waste Treatment Tanks
6000 Gallons each T01



Item 4 - Container Storage/Treatment Area - 40-1/2 ft. x 50 ft. - 300 dr. equivalent - S01, T04



Item 7
Organic-Waste Treatment Tank - 6000 Gallon - T01

VPU SHEET PROTECTOR M-198



Item 5 - Container Storage Treatment Area - 100 ft. x 140 ft. - 2700 dr. equivalent - S01, T04 FRONT VIEW



Item 5 - Container Storage Treatment Area - 100 ft. x 140 ft. - 2700 dr. equivalent - S01, T04 BACK VIEW

VPU SHEET PROTECTOR M-198



Item 5 - Container Storage Treatment Area - Side View - Containment



Item 5 - Container Storage Treatment Area - Side View - Secondary Containment

SECTION B

FACILITY DESCRIPTION

B-1 General Description (40 CFR 270.14(b)(1))

This description is intended to provide the reader with an overview of the facility. More complete details regarding hazardous waste management at the facility will be found in other sections of this permit application.

The PPG Industries Coatings and Resins Plant is located approximately six miles south of Milwaukee in Milwaukee County, Wisconsin. The mailing address is:

PPG Industries, Inc.
10800 South 13th Street
Oak Creek, Wisconsin 53134

PPG Industries Oak Creek Plant encompasses approximately 149 acres of property in the immediate vicinity of the Oak Creek Plant, with approximately 53 acres in use as an active manufacturing complex. The plant operates for three shifts each day, seven days per week.

The plant produces a wide variety of solvent and water-based trade sales, industrial and automotive coatings and resins. Raw materials are received in bags, cans, various sized drums, tank wagons and rail cars. Products are packaged in cans (e.g. one gallon, five gallon), 55-gallon drums, 300 to 400-gallon tote tanks and tank wagons. The plant handles numerous hazardous materials and is registered with the U.S. Environmental Protection Agency as a hazardous waste generation, treatment and storage facility. The plant also accepts for on-site management small amounts of hazardous waste produced by PPG distribution and retail centers. The hazardous waste management facilities are an integral part of the manufacturing complex.

General Waste Management Operations

Hazardous waste management activities taking place on-site include treatment and storage operations. Several tanks are used to blend compatible but different organic waste streams to make the wastes more amenable for off-site disposal. Containers holding organic liquids are pumped into blending tanks for treatment. Containers holding water-base liquids are pumped into different blending tanks. Solids that remain in the containers after this pumping operation are consolidated with compatible but different wastes in other containers and then stored in one of the container storage areas until shipped off-site for disposal. Some hazardous

wastes are treated by adding absorbent after the container has been filled. Solidification agents may also be used to remove free liquids. Aqueous wastes are treated at the plant's Waste Treatment Center using physical/chemical treatment which is currently exempt from RCRA regulation because the supernatant is discharged to a public sanitary sewer system. Residual wastewater treatment sludge may be blended with other water-based sludge wastes from the plant. Some wastes are temporarily stored in tanks prior to on-site reclamation or off-site reuse or disposal. The plant operates two solvent recovery stills for reclaiming spent solvents. Reclaimed solvent is reused on-site. Still bottoms are blended on-site with other organic wastes and disposed at permitted off-site hazardous waste management facilities.

All hazardous wastes, that are not reused, reclaimed or treated on-site are disposed at permitted off-site hazardous waste facilities.

The contact and party responsible for hazardous waste management activities at the Oak Creek plant is:

Mr. Dan Scudder

Environmental Engineer

(414) 764-6000

B-2 Facility Maps (40 CFR 270.14(b)(19))

A topographic map showing a distance of greater than 1000 feet around the facility boundary at a scale of 1" = 100' is provided in Drawing B-2-1 (found at the end of this document). The contour interval is two feet, which clearly shows all structures, all surface waters and the patterns of surface water flow, barriers for drainage control, location of all operational hazardous waste management units, and surrounding land uses. It is important to note that management of surface water runoff from the active hazardous waste areas is provided at all times. A zoning map for Oak Creek is provided in Figure B-2-2.

A representative wind rose is provided in Figure B-2-3. This wind rose was produced from meteorological data collected at Mitchell Field, the nearest weather station with meteorological data. Mitchell Field is located approximately six miles north of the PPG Plant.

B-3 Location Information (40 CFR 270.14(b)(11))

B-3a Seismic Standard (40 CFR 270.14(b)(11)(i))

Applicability of the Seismic Standard

40 CFR 264.18(a) Seismic Standard

"Portions of the new facilities where treatment, storage, or disposal of hazardous waste will be conducted must not be located within 200 feet of a fault which has had displacement in Holocene time."

Political Jurisdiction

In order to determine the applicability of the seismic standard, the owner or operator of a new facility must identify the political jurisdiction in which the facility is proposed to be located. If the political jurisdiction is not listed in Appendix VI of 40 CFR Part 264, no further information is required to demonstrate compliance.

Facility Location

The PPG Oak Creek Plan and its hazardous waste areas are located approximately six miles south of Milwaukee in Milwaukee County, Wisconsin.

Application of Standard

40 CFR Part 264, Appendix IV (Federal Register 11/23/81) does not list this jurisdiction.

Conclusion

The PPG Oak Creek Plant is in compliance with the seismic standard. No further information is required.

B-3b. Floodplain Standard (40 CFR 270.14(b)(11)(ii))

Applicability of the Floodplain Standard

40 CFR 264.18(b) Floodplains

"A facility located in a 100-year floodplain must be designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate to the Regional Administrator's satisfaction that . . . . ."

Local Floodplains

The National Flood Insurance Program flood map of the general vicinity of the Oak Creek Plant is included as Figure B-3-1. Figure B-3-1 clearly demonstrates that the hazardous waste management area, as well as the entire Oak Creek Plant, is outside the 100-year floodplain.

Conclusion

The PPG Oak Creek Plant is in compliance with the floodplain standard and no further information is necessary.

B-4 Traffic Patterns (40 CFR 270.14(b)(10))

General Access

Figure B-4-1 shows the access routes to the PPG Oak Creek Plant. As shown, all road access is to the western edge of the plant and comes from 13th street. Interstate 94, located approximately 3/4 of a mile west of the PPG Plant, carries the greatest traffic volume of any road in the area. Vehicles would normally exit the interstate onto Ryan Road, from either a north or south direction travel east on Ryan to 13th Street and then turn south onto 13th Street. From 13th Street, vehicles enter directly onto PPG property. All three of the roads are well maintained, and traffic delays are not normally encountered.

Access to parking lots is unrestricted, but access to the plant itself is controlled by manned access control points. The parking lots are under 24-hour surveillance via closed circuit television.

On-Site Traffic Patterns and Control

The roads within the PPG Oak Creek Plant property boundaries, with pertinent traffic control signs are shown in Figure B-4-2.

Trucks entering the PPG Oak Creek Plant enter at the southern plant entrance. This entrance has a stop sign, a remotely operated gate, a voice box, and a television camera. A security guard stationed at the employee services section of the office building monitors the television and operates the gate. Drivers identify themselves to the guard by talking into the voice box at the gate. If the company of the driver is known to the guard and has scheduled business on the plant property, the gate is opened and the truck allowed in. If the company of the driver is not known to the guard, the guard calls the supervisor of the area with which the driver claims to have business. If the supervisor of that area confirms that the driver has business within the plant, the gate is opened and the truck allowed in. The guard keeps a log with times of all drivers entering and exiting the plant.

Drivers normally proceed to the loading/unloading areas without further assistance. If a driver has not previously been to the Oak Creek Plant, he would be directed to stop at the shipping dock for directions or other assistance.

Off-Site Wastes

Trucks which are carrying off-site generated wastes (generated at PPG retail paint stores or PPG distribution centers) deliver their loads to the receiving dock located inside the southeast end of the Paint Plant. If any shipments of these off-site generated wastes are received after 3 p.m., they are received at the shipping dock located inside the southwest end of the paint plant. On the following day, these wastes would be moved directly to an accumulation/handling area prior to transfer to a permitted area. PPG Corporate trucks typically deliver off-site generated wastes, but commercial carriers may also be used. These wastes are normally delivered Sunday through Sunday from 7 a.m. until 11 p.m. Off-site wastes received at PPG Oak Creek Plant are mostly from small quantity generators and constitute <1% of all wastes managed on-site.

On-Site Wastes

Trucks that have come to the plant to pick up bulk wastes for transportation off-site proceed to the waste treatment center loading station. The typical route is for the trucks to follow the road from the gate straight into the plant to

the end of the Paint Plant, then bear to the right to skirt the tank farm. They make a left turn after the tank farm and proceed to the end of that drive, then turn left and proceed to the loading station at the waste treatment center. An alternate route to the waste treatment center is to follow the main driveway to the end of the Paint Plant, make a left turn and continue past the Resin Plant, turning right just after that building, and then making a left turn into the loading station at the waste treatment center. Trucks entering the plant to haul bulk waste shipments are received Monday through Friday, 7 a.m. until 9 p.m. Should conditions require, these trucks can be scheduled on a weekend.

Trucks entering the plant to haul containerized wastes follow the main driveway around the tank farm, turn left and proceed up the drive to the container storage area behind the Resin Plant. The loading operations would take place on or adjacent to the storage pad. Wastes stored in fiber drums or in boxes are loaded onto trucks inside the train well or at the receiving dock at the southeast corner of the Paint Plant. Receiving hours for trucks picking up containerized wastes are Monday through Friday, 7 a.m. until dusk.

All trucks reverse their incoming routes to exit the PPG Oak Creek Plant.

Road Surfacing and Load Bearing Capacity

Hazardous waste may be transported by a licensed hazardous waste hauler using tractor trailer trucks. The total weight of these trucks can reach the state load limit of 80,000 pounds. Under these conditions, trucks will be hauling approximately 44,000 pounds of hazardous waste.

Currently, all roads in the PPG Oak Creek Plant area, as well as PPG Plant internal roads are capable of carrying all vehicles and weight allowed by the motor vehicle laws of Wisconsin. A Class A highway, Ryan Road in the vicinity of the PPG Oak Creek Plant has a maximum load bearing capacity of 80,000 pounds for 5-axle trucks and is constructed of reinforced concrete approximately 70 feet wide with 4 lanes, with 2 additional turn lanes at intersections. Traffic counts on this road average 8,000 vehicles per day. Thirteenth Street is a Class B county trunk highway and since it is an unposted Class B, it has load-bearing capacities equal to Class A highways. Thirteenth Street is constructed of asphalt over concrete and is approximately 24 feet wide with two traffic lanes and small gravel shoulders. Traffic counts on this road average 3,000 vehicles per day. There are no roadway restrictions immediately external or internal to the PPG Oak Creek Plant.

PPG Plant roads used by waste haulers consist of 4" of asphalt over a 14" granular base. The base was laid in 6-8 inch layers and compacted to 92% of standard proctor density.

Hazardous Waste Related Traffic Volume and Type

Typical traffic counts are five bulk waste carrier trucks loaded per week, and two trucks of containerized waste loaded per week. Maximum traffic counts are three bulk carrier trucks loaded per day and one truck of containerized waste per day. Maximum truck weight when loaded would not exceed the maximum allowable weight in the state of locality to which the wastes are shipped. Normal weight of waste on a loaded truck would not exceed 44,000 pounds.

CITY OF OAK CREEK
1985

OFFICIAL ZONING DISTRICT MAP

RESIDENCE DISTRICTS
- R-1 SINGLE FAMILY RESIDENCE
- R-2 SINGLE FAMILY RESIDENCE
- R-3 SINGLE FAMILY RESIDENCE
- R-4 GENERAL RESIDENCE
- R-5 MOBILE HOME DISTRICT

MANUFACTURING DISTRICTS
- M-1 LIMITED MANUFACTURING
- M-2 GENERAL MANUFACTURING
- M-3 HEAVY MANUFACTURING

BUSINESS DISTRICTS
- B-1 LOCAL BUSINESS
- B-2 COMMUNITY BUSINESS
- B-3 SERVICE BUSINESS
- B-4 SERVICE BUSINESS

OVERLAY DISTRICTS
- GFP GENERAL FLOOD PLAIN
- FW FLOOD WAY
- FF FLOOD FRINGE

SEPARATE CATEGORIES
- PD PLANNED DEVELOPMENT
- SU SPECIAL USE
- F-1 FLOODPLAIN
- LA LIMITED AGRICULTURAL
- IPD INDUSTRIAL PLANNED DEVELOPMENT
- RPD RESIDENTIAL PLANNED DEVELOPMENT
- RCPD RESIDENTIAL-COMMERCIAL PLANNED DEVELOPMENT

NORTH

0 500 1000 2000 3000 4000 5000 FEET
0 1/8 1/4 1/2 1 MILES

LAKE MICHIGAN

CITY OF OAK CREEK
CITY OF MILWAUKEE
CITY OF SOUTH MILWAUKEE
CITY OF FRANKLIN
TOWN OF CALEDONIA

STREET INDEX

A
ADAMS STREET F-2
ADDISON LANE K-6
ALAN ROAD G-13
ALTON ROAD L-12
AMERICAN AVENUE J-8,9
ANNETTE PLACE J-8
AUSTIN STREET E-2-7-10-12
ARTHUR DRIVE F-10
ASH STREET H-3

B
BARTON ROAD K-11,12
BECKER ROAD J-12
BIRCH DRIVE H-2
BONITA COURT F-6
BONNIE DRIVE J-8
BRANDEAN COURT J-8
BURRELL STREET E-7-8-10

C
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CARLTON DRIVE J-8
CAMP ISTOM AVENUE A-8-12
CARROL AVENUE A-1
CEDAR STREET B-3
CHAPEL DRIVE H-4
CHARMAINE CIRCLE J-8
CHESTNUT DRIVE H-4
CHICAGO COURT J-8
CHICAGO ROAD K-10
CINDY LANE E-10
CLEMENT AVENUE C,D-5
COLLEGE AVENUE A-H,I
CONNIE LANE G-10
COUNTY LINE ROAD G-K,13
CRANE DRIVE H,I-4
CRAMPLE T
CRAMPLE LANE
D
DANIEL LANE C-10
DARCY DRIVE F-6
DARLENE LANE F-10
DEPOT ROAD K-8
DELANE DRIVE H-8
DEXTER AVENUE K-8
DREXEL AVENUE A-H,5
E
ELAINE ROAD J-12
ELM ROAD C-E-G-J-12
ESTATES PLACE J-10
EVANDALE DRIVE F-7
EXCALIBUR COURT H-6
F
FENWAY COURT H-7
FENWAY DRIVE H-7
FITZSIMMONS ROAD E,F,G,I,J-10
FLYNN AVENUE J-8
FOREST LANE I-8
FOREST HILL AVENUE D-J,8
G
GARDEN PLACE J-10
GLEN OAKS DRIVE H-7
GOLDEN LANE F,G-9
GRAYS LANE A-8-9
GRIFFIN AVENUE F,I-6
GROVELAND DRIVE E-F-6
GLEN FOREST COURT J-7
H
HICKORY DRIVE H-3
HIGHVIEW AVENUE J-11
HIGH STREET K-8
HIGHFIELD COURT H-4
HIGHFIELD DRIVE H-2,H-4
HILLCREST COURT L-12
HILLTOP LANE A-8,9
HONEYSUCKLE DRIVE H-6
HOWELL AVENUE E,I-13
J
JANAT DRIVE C-3
JASON COURT I-7
JASPER STREET E-10
JEAN AVENUE C-7
JENNIFER COURT E-11
JENNIFER LANE E-11
JEWEL STREET E-2
JOHN STREET J-8
JUDITH PLACE B-11
JUMPER COURT H-3
JUMPER DRIVE H-3
K
KENDALE DRIVE E-5
KINNEY LANE J-9
KING ARTHUR COURT B-2
L
LAKESIDE AVENUE K-8
LAKEVIEW DRIVE F-6
LAVERNE DRIVE F-6
LENOX AVENUE F-5
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LISA DRIVE E-11
LOGAN AVENUE F-5
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LYNHAVEN DRIVE G-8
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MACKINAC AVENUE F-5
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MADISON DRIVE F-4
MANITOBA AVENUE F-5
MANITOWOC AVENUE F-5
MANOR AVENUE F-8
MAPLE STREET B-8
MARKET PLACE F-7
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MARQUETTE AVENUE E-F,5
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MILWAUKEE AVENUE J-8
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MONA COURT F-6
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NICHOLSON ROAD G,7-13
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OAK STREET E,F,H-2
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OAKWOOD ROAD A-8,11
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PARKWAY ESTATES DRIVE E-9
PATRICIA BOULEVARD I-7
PELTON DRIVE C-2
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PINE AVENUE F,2-5
PLEVNA ROAD I-10
POPLAR AVENUE H-2
PRAIRIE VIEW DRIVE F-9
PUETZ ROAD A-K,8
PENDRAGON COURT H-6
Q
QUINCY AVENUE F,3-5
R
RANDY ROAD G-13
RAWSON AVENUE A-K,3
REBECCA COURT I-7
RICHARD ROAD G-12
RIDGEVIEW DRIVE B-10
RIVERTON ROAD I-7
ROBERT COURT NORTH E-10
ROBERT COURT SOUTH E-10
ROBERT ROAD E-F,10
RUTHELLEN LANE I-7
RYAN ROAD A-L,9
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SCHMITZ DRIVE A-12
SHARON DRIVE H-7
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SHEPARD HILLS DRIVE F-9
SOUTHBRANCH BOULEVARD A-10
SOUTHLAND DRIVE A-8,9
SPRUCE COURT A-2
STUDIO LANE K-12
SUMMITVIEW DRIVE E-7
SUNSET DRIVE E-6
SUSAN DRIVE E-3
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STONEFIELD DRIVE I-7
SYCAMORE AVENUE A-K,2
T
TAYLOR AVENUE F-3
TIMBER RIDGE LANE B-3
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VERONICA DRIVE F-9
VIOLET DRIVE C-7
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WAKE FOREST COURT C-9
WAKE FOREST DRIVE C-9
WARING DRIVE C-9
WAYLAND DRIVE C-5
WHITE OAK DRIVE C-5
WILDFLOWER LANE F-9
WILDWOOD DRIVE C-5
WILLOW COURT C-6
WILLOW DRIVE C-6
WOOD AVENUE B-2
WOODRIDGE DRIVE C-6
WOODVIEW AVENUE I-8
WOODVALE DRIVE I-7
WOODWARD DRIVE A-8,9
WYNBROOK DRIVE C-5
WYNBROOK COURT C-5
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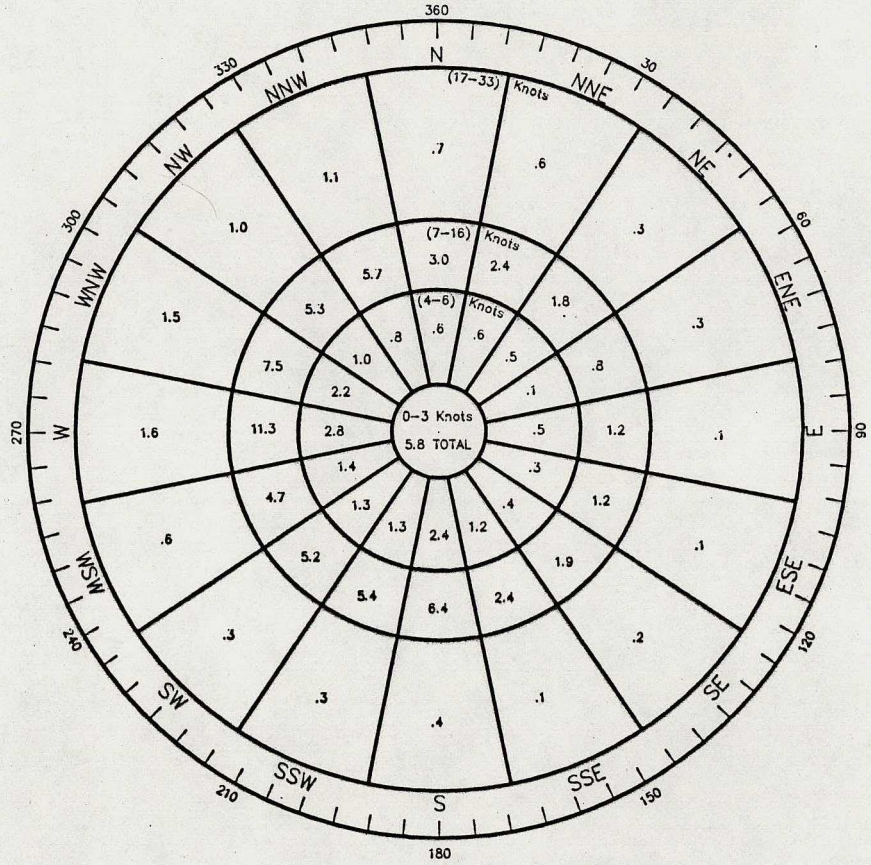
NUMBER STREETS
1st STREET E-6
2nd AVENUE E-10
3rd AVENUE E-10
4th AVENUE E-10
5th AVENUE K,E-9
6th STREET D,E-7
6th AVENUE E-8
7th AVENUE J-8
8th AVENUE J-8,E-10
9th AVENUE J,E-10
10th STREET E,J-5
11th AVENUE I-7,8
12th AVENUE J-11
13th STREET C,I-13
15th AVENUE I,E-10
15th STREET C-7
16th STREET C-7
20th STREET B-2,5,8
21st STREET B,I-8
22nd STREET B,E-3
24th STREET B-2
25th STREET A-2
26th STREET A,I-8
27th STREET A,I-13

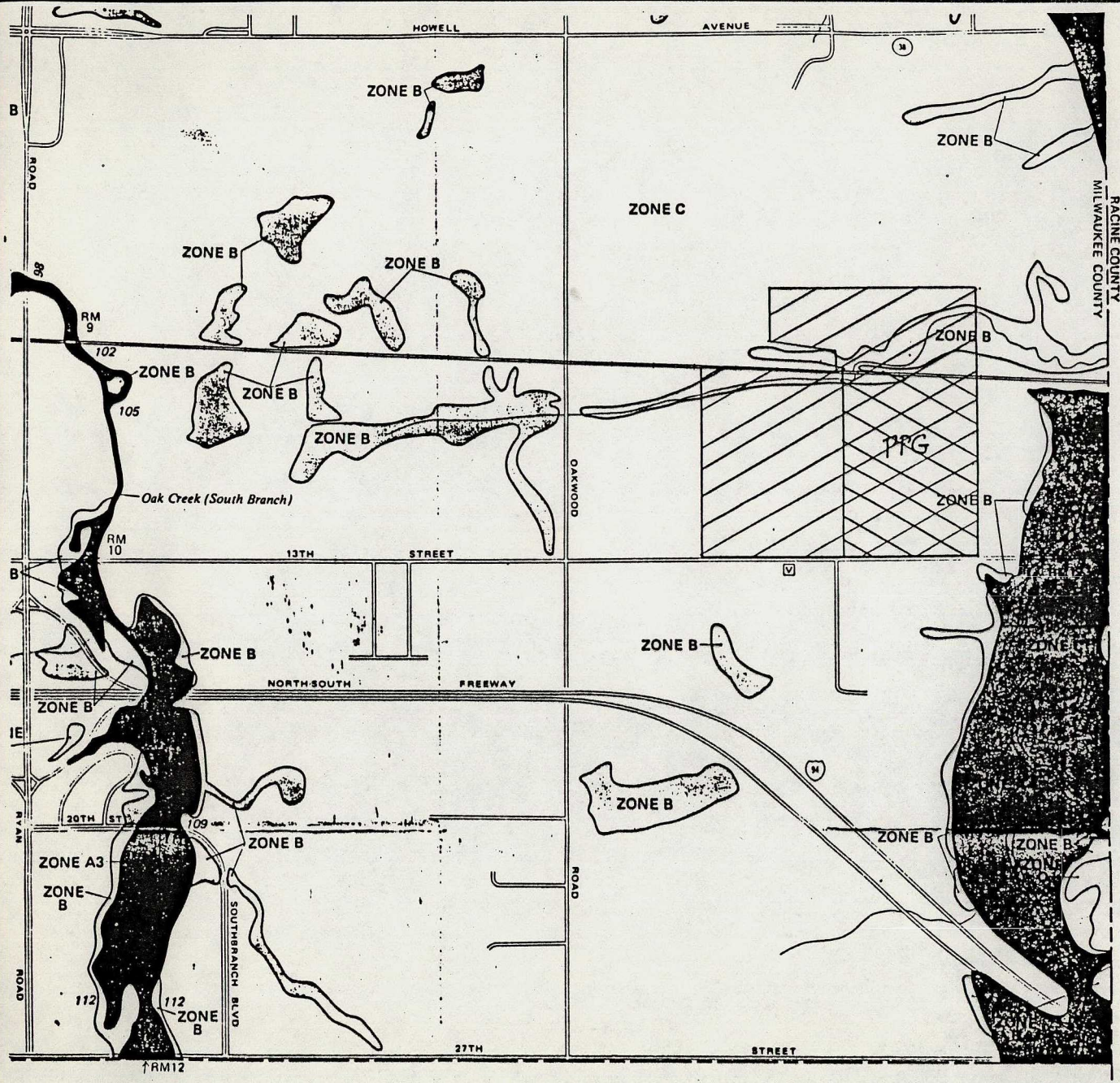
NOTE: (NC) STREET NOT CONSTRUCTED

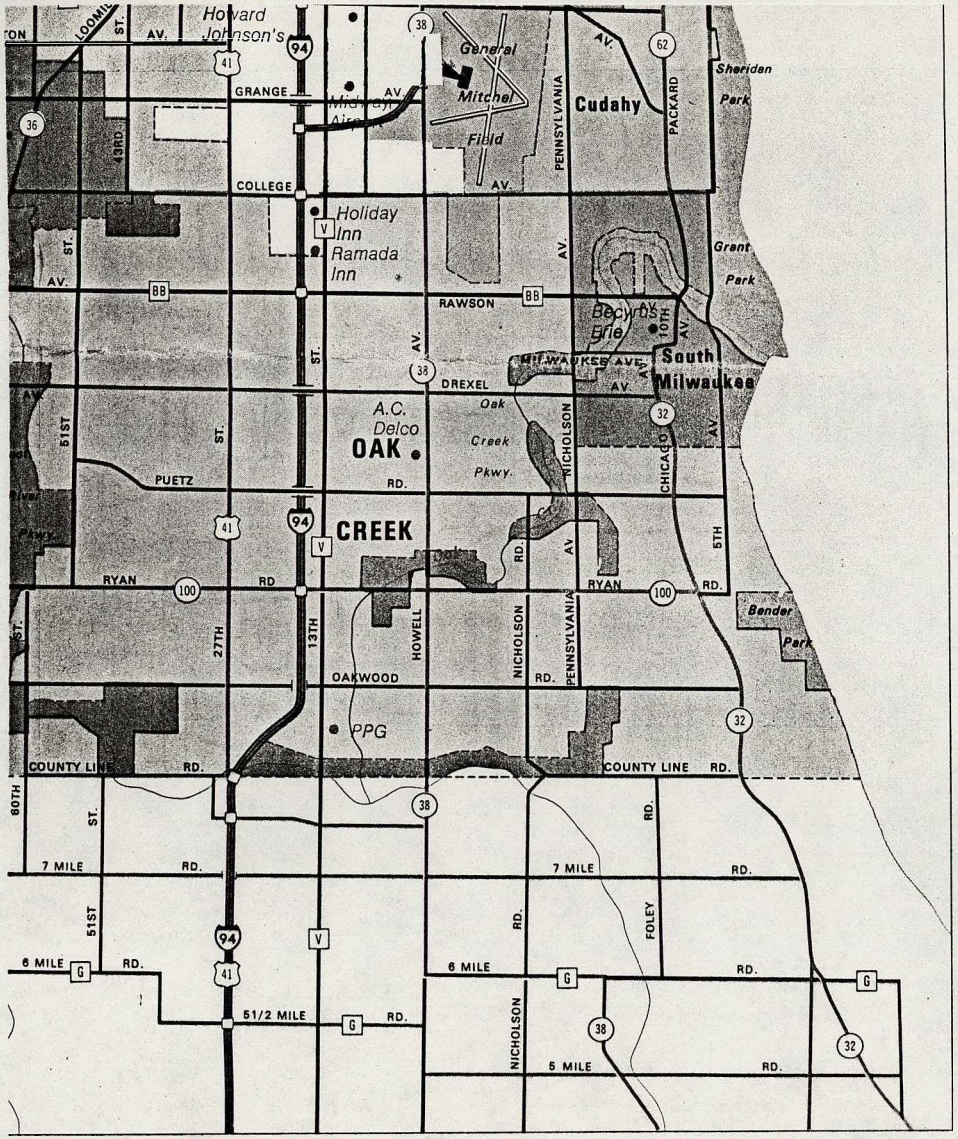
Figure B-2-2
Zoning Map



Source: N.O.A.A. Summary – Milwaukee Mitchell Field (1965–1974)
Climatography no. 90 (Feb. 1978)

WIND ROSE	FIGURE NO.
ERM–Midwest	B–2–3


HOWELL
AVENUE
ZONE B
ZONE C
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
RACINE COUNTY
MILWAUKEE COUNTY
ROAD
98
RM 9
102
105
Oak Creek (South Branch)
RM 10
13TH STREET
OAKWOOD
PPG
ZONE B
ZONE B
ZONE B
NORTH-SOUTH FREEWAY
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B
ZONE B



SCALE OF MILES

0 1 2 3 4 MILES

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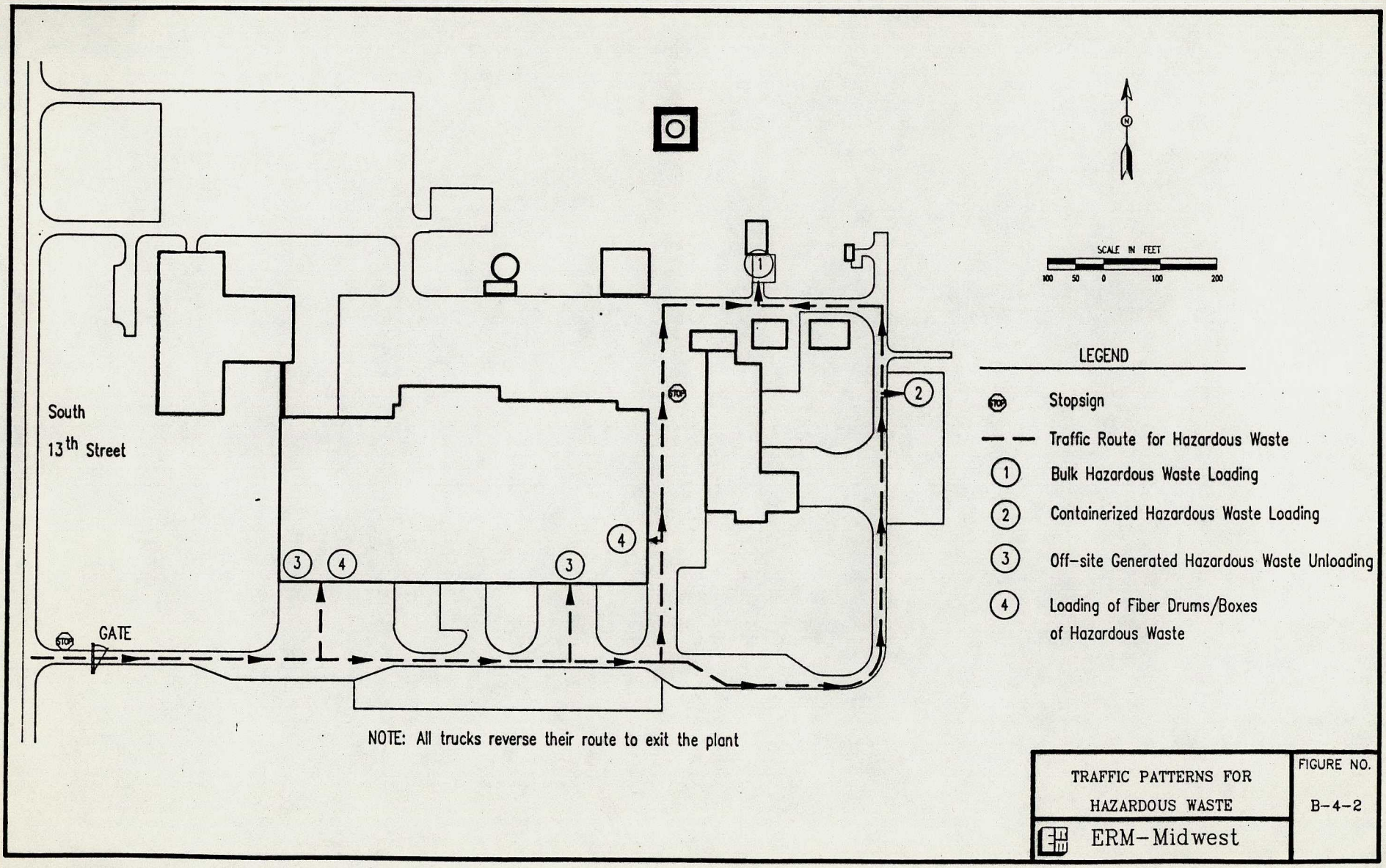
ACCESS ROUTES	FIGURE NO.
ERM-Midwest	B-4-1



NOTE: All trucks reverse their route to exit the plant

TRAFFIC PATTERNS FOR HAZARDOUS WASTE	FIGURE NO. B-4-2
ERM-Midwest	

SECTION C

WASTE CHARACTERISTICS

This section describes the chemical and physical nature of the hazardous wastes stored and treated at the PPG Industries, Inc. Oak Creek, Wisconsin facility and the Waste Analysis Plan for sampling, testing and evaluating the wastes to ensure that sufficient information is available for their safe handling. The information is submitted in accordance with the requirements of 40 CFR 270.14 (b) (2) and (3) and 40 CFR 264.13.

C-1 Chemical and Physical Analysis

40 CFR 270.14 (b) (2) and 264.13 (a) (1) and (2)

The chemical and physical analysis and/or general descriptions of the wastestreams generated, stored or treated at PPG Oak Creek are listed in Table C-1-1 and included as attachments.

If a wastestream has not been analyzed, the general description presented is based upon analysis of similar wastestreams generated by other PPG Coatings and Resins facilities or technical literature.

The parameter "Pigment Solids" represents both heavy metal and non-heavy metal inorganic pigments in a waste.

The parameter "Solvents" may include any of a number of solvents used at the plant. Specific solvents would be identified on an analysis report.

The parameter "Total Resin Solids" may include alkyd, acrylic, epoxy or phenolic resins.

Except for the listed wastestreams, F003, F005 and discarded or spilled commercial products that may be acutely hazardous or toxic, all other wastestreams are hazardous due to a characteristic, which can be either tested or assumed based on knowledge of the waste. The basis for hazardous determination is included in the general description.

Point of generation, handling method and general discussion of each wastestream is included in Section C-2-Waste Analysis Plan.

C-2 Waste Analysis Plan

40 CFR 270.14 (b) (3) and 264.13 (b) and (c)

This Waste Analysis Plan contains all of the information which must be known to store and/or treat wastes generated onsite and to accept, store and/or treat wastes generated by offsite PPG facilities.

C-2a Parameters and Rationale

Table C-2-1 generally discusses the hazardous wastes generated, stored and treated at the PPG Oak Creek facility and lists the minimum analytical parameters that apply to each and the rationale for their selection. Additional parameters may be checked at the discretion of PPG.

C-2b Test Methods

Table C-2-2 lists the analytical test methods that would be followed. All test methods are from Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, (EPA Office of Water and Waste Management, SW-846, 2nd Edition, 1982 and subsequent updates), other EPA-approved methods, or a PPG analytical method if no EPA method is applicable.

All testing will be done by a contracted chemical analysis laboratory or a PPG Coatings and Resins Group laboratory.

C-2c Sampling Methods

Sampling methods will be tailored to the particular wastestream being sampled. Physical and chemical characteristics, as well as the volume and generation mode will be considered when choosing a sampling method. In general, wastes will be sampled according to SW-846 Section I which incorporates methods from Samplers and Sampling Procedures for Hazardous Wastestreams, EPA 600/2-80-018, January, 1980 and 40 CFR Part 261 Appendix I - Representative Sampling Methods. Table C-2-3 lists the wastestreams and the methods used to sample each. Attachment C-2-1 is an example of the current Sample Analysis Request Form/Chain of Custody Form used by PPG.

Wastes samples are managed according to the same safe operating practices as for the entire wastestream. Ignitable waste samples are protected from ignition sources. Physically incompatible waste samples are placed in separate containers. The sample collector wears gloves and other protective clothing according to the degree of hazard involved.

Samples are usually collected in containers 1 gallon size or smaller. Waste samples are exempt from hazardous waste regulations but must still comply with DOT packaging and transportation requirements. For a waste whose hazardous properties are not addressed in the DOT regulations, the containers must meet the general performance standard, i.e. be of a design and constructed of a material that will not react dangerously with, be decomposed by or be ignited by the waste held therein. Also, all containers must be tightly and securely sealed.

Waste samples are packaged for shipment to the laboratory as follows:

Flammable or Combustible Liquids or Sludges	Metal Cans
Water or Caustic Liquid or Sludges	Plastic Jars or Bottles
Solids	Metal Cans or Plastic Jars

C-2d Frequency of Analyses

Table C-2-4 lists the wastestreams, parameters, frequency of analysis and rationale. Most wastes which will be shipped to offsite TSD facilities will be analyzed at least yearly. Additional samples may be collected and additional parameters checked on any given wastestream whenever a process change is made or other conditions require. Other conditions may involve offsite TSD contractor requests, Agency requests or internal PPG studies. Wastes managed onsite in non-regulated processes will be analyzed at PPG's discretion.

Hazardous constituent concentrations will vary with the raw materials used in the manufacturing process. Most wastes designated EP Toxic were declared so based on raw material pigment usage, rather than EP Toxicity test results. Due to the large number of raw materials used by PPG, waste constituents are usually listed in ranges based on actual analyses, knowledge of the process or product, or similar wastestreams generated by other PPG facilities.

Physical properties usually do not vary. Cleaning wastes may vary, however, in Total Solids concentrations depending on the amount of cleaning material used and residue in the process equipment. Ranges are usually provided to describe the physical properties of cleaning wastes.

If new wastestreams are generated in the future, the Environmental Engineer will be informed so that samples can be collected and analyzed to determine physical properties and hazardous constituents. If a waste is found to be hazardous, this waste analysis plan will be amended and a permit modification will be requested.

Most of the major wastestreams have been analyzed several times since 1980. Smaller volume wastestreams which are usually combined with the major wastestreams have also been analyzed, but less frequently. Analytical results to date are on file at the facility and are also included in Section C-1 of the permit application.

C-2e Wastes Generated Offsite

Off specification or obsolete products and/or wastes are occasionally returned to PPG Oak Creek from offsite PPG product distribution centers. The materials are returned in small containers usually 1-10 gallon size and consolidated with other PPG Oak Creek wastes. These materials consist of the same categories of waste that PPG Oak Creek generates:

1. Solvent-Base Paint Waste
2. Water-Base Paint Waste
3. Dirty Solvent
4. Washwater

Off-specification or obsolete products are returned with a bill of lading. An evaluation is made by PPG Oak Creek whether these materials can be re-worked. If not, the materials are declared waste. Product codes and formulas are used to classify the materials into the facility's waste categories.

Wastes are returned with a bill of lading and a manifest if the offsite PPG facility is regulated as a generator by its State Agency. Most offsite PPG facilities returning waste to PPG Oak Creek are small quantity generators. Containers of regulated wastes are labeled with hazardous waste labels. All waste containers are marked and labeled with a general description of the waste to allow PPG Oak Creek to quickly identify the waste to determine proper handling.

When received, these wastes are visually inspected to ensure they match the description on the label and/or the manifest. If a discrepancy is noted, the generating location is contacted to resolve. Further resolution may be necessary also through PPG Coatings and Resins Group Environmental Engineering Department, which coordinates all waste returns to the factories. Mis-labelling is usually the cause for the discrepancy. Analytical tests will be run only if the waste does not fall into one of the four categories listed above and the generating location cannot adequately describe how the waste was generated.

C-2f Additional Requirements for Ignitable, Reactive or Incompatible Wastes

Many of the wastestreams handled by PPG Oak Creek are ignitable. All ignitable wastes are managed within the buffer zone distances for container storage or tank treatment areas. Most wastestreams, except solids, were checked for the ignitability characteristic using the Pensky-Martens closed cup flash point method. Other wastestreams may have been characterized as ignitable by knowledge of the components in the waste, product flash point or similar wastestreams generated by other PPG facilities.

The Oak Creek facility handles relatively few reactive raw materials which could end up as a waste or a component in a waste. The reactive characteristic is mostly confined to certain raw materials or products which react with water and generates CO_2 or heat. All waste materials requiring special handling are segregated from other wastes by placing in separate containers.

The Oak Creek facility handles some wastes which are physically incompatible. These wastes segregated from other incompatible wastes by placing in separate containers or tanks. The bench scale physical compatibility check method outlined in Table C-2-2 is used on any new wastes to be combined in the treatment tanks.

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Table C-1-1

LIST OF WASTESTREAMS

Description	Attachment
Paint Plant Dirty Solvent	C-1-A
Resin Plant Dirty Solvent	C-1-B
Solvent Recovery Still Sludge	C-1-C
Water-Base Paint Waste	C-1-D
Solvent-Base Paint Waste	C-1-E
Resin Waste	C-1-F
Cationic Distillate - MIBK	C-1-G
Paint Plant Filter Cartridges and Bags	C-1-H
Resin Plant Filter Cartridges and Bags	C-1-I
Paint Plant Baghouse Dust	C-1-J
Resin Plant Baghouse Dust	C-1-K
Paint Plant Trade Washwaters	C-1-L
Paint Plant Industrial Washwater	C-1-M
Paint Plant Caustic Cleaning Water	C-1-N
Resin Plant Caustic Cleaning Water	C-1-O
Resin Plant Wastewaters	C-1-P
Cationic Wastewater	C-1-Q
Wastewater Treatment Supernatant	C-1-R
Wastewater Treatment Sludges	C-1-S
Paint Plant Caustic Sludge	C-1-T
Floor Sweepings	C-1-U
Floor Cleaning Solution	C-1-V
Discarded or Spilled Raw Materials	C-1-W
Offsite Wastes	C-1-X
Off-Specification Products	C-1-Y
Laboratory Paint and Resin Wastes	C-1-Z

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C

TABLE C-2-1

WASTESTREAMS/ANALYTICAL PARAMETERS AND RATIONALE FOR THEIR SELECTION

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
A. Paint Plant Dirty Solvent	Solvent is used to clean process equipment in paint manufacturing. This waste is a single-phase organic liquid with resin and pigment solids. It is accumulated in two-15,000 gallon tanks prior to onsite recovery by batch distillation. On occasion, this waste may be shipped offsite for recovery when it cannot be handled onsite. The solvent varies in concentration but usually not in composition unless a different makeup solvent is added or a new product is produced. This variation, however, does not affect the solvent's major characteristics.	F003, F005	S02[2], T01, T63 (T50)	Flash Point, Organic Composition (Components to nearest 1%)	This waste is a mixture of listed spent solvents some of which are ignitable; some are ignitable and toxic.
				Weight/gallon, Total Solids, Percent Ash, Percent Water	Additional parameters for onsite/offsite recovery.
				RCRA Metals	Additional parameter for offsite recovery.

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TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
B. Resin Plant Dirty Solvent	Solvent is used to clean process equipment in resin manufacturing. This waste is a single-phase organic liquid with resin solids. It is accumulated in one-15,000 gallon tank prior to onsite recovery by batch distillation. It may also be shipped offsite. Similar to Paint Plant Dirty Solvent in organic composition.	F003, F005	S02[2], T01, T63 (T50)	Flash Point, Organic Composition (Components to nearest 1%)	This waste is a mixture of listed spent solvents. Some are ignitable; some are ignitable and toxic.
				Weight/gallon, Total Solids, Percent Ash, Percent Water	Additional parameters for onsite/offsite recovery.
				Lead	Additional parameter for offsite recovery. Lead catalyst is sometimes a raw material.
C. Solvent Recovery Still Sludge	Residues removed from the solvent recovery distillation system are blended with other compatible wastes in any one of three 6000 gallon tanks prior to shipment to an offsite secondary fuel or incineration facility.	F003, F005	T01 (T50)	Flash Point, Organic Composition (Components to nearest 1%)	This waste is listed. Knowledge of the flash point is also needed to ensure safe handling onsite and offsite.
				Weight/gallon, viscosity, Total Solids, Percent Ash, Percent Water, RCRA Metals, BTU	Additional parameters for offsite handling.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
D. Water-Base Paint Waste Water-Reducible Paint Waste	Discarded, spilled, defective or obsolete paint or paint residues from industrial or trade paint manufacturing using water as the main solvent. Liquids are either blended in a treatment tank or shipped directly in drums to an offsite secondary fuel or incineration facility. Solids are shipped to an offsite incineration or disposal facility. Some solids may be solidified prior to shipment offsite.	(D001), D007, D008, (D009)	S01, T01 T04[4] (T50)	Flash Point,	Possibly ignitable due to to solvents.
				Chromium, Lead, Mercury, EP Toxic — Cr, Pb, Hg	Declared hazardous due to metal concentrations in products.
				Weight/gallon, Viscosity, Compatibility	Additional parameters for onsite blending.
				Percent Water, Percent Ash, BTU, Total Solids, Free Liquid, Product Formula	Additional parameters for offsite handling.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
E. Solvent-Base Paint Waste	Discarded, spilled, defective or obsolete paint or paint residues from industrial paint manufacturing. Liquids and solids are handled in a similar manner as Water-Base Paint Waste except that the two wastes are handled separately.	D001, D007, D008	S01, T01, T04[4] (T50)	Flash Point,	Ignitable due to solvents.
				Cr, Pb, EP Toxic — Cr, Pb	Declared hazardous due to metal concentrations in products.
				Weight/gallon, Viscosity, Compatibility	Additional parameters for onsite blending.
				Percent Water, Percent Ash, BTU, Total Solids, Free Liquid, Product Formula	Additional parameters for offsite handling.
F. Resin Waste	Discarded, spilled, defective or obsolete resin or resin residues from resin manufacturing. Liquids and solids are handled in a similar manner as Solvent-Base Paint Waste.	D001, (D003)	S01, T01, T04[4] (T50)	Flash Point	Usually ignitable due to solvents.
				Weight/gallon, Viscosity, Compatibility	Additional parameters for onsite blending.
				Percent Water, Percent Ash, BTU, Total Solids, Free Liquid, Product Formula	Additional parameters for offsite handling.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
G. Cationic Distillate - MIBK	By-product of a resin manufacturing process. This waste is accumulated in a tank prior to shipment offsite to a solvent reclaimer, reuser, or secondary fuel processor	F003	S02[2]	Flash Point MIBK	Listed waste due to ignitability.
				Weight/gallon, Viscosity	Additional parameters for onsite temporary storage.
				Percent Water, Xylene, BTU	Additional parameters for offsite reuse or recovery.
H. Paint Plant Filter Cartridges and Bags	Fiber filter cartridge, bag and/or paper straining media contaminated with paint, resins, solvent or water and pigments. An inert absorbent material or solidifying agent may be added to remove free liquids. Waste is shipped offsite to an incineration or disposal facility.	D007, D008 D009	S01, T04[4]	Cr, Pb, Hg EP Toxic - Cr, Pb, Hg	Declared hazardous due to metal concentrations in products.
				Weight/gallon, Percent Water, Percent Ash, BTU, Total Solids, Free Liquid	Additional parameters for offsite handling.
I. Resin Plant Filter Cartridges and Bags	Fiber filter cartridge, bag or paper straining media contaminated with resins. An inert absorbent material or solidifying agent may be added to remove free liquids. Waste is shipped offsite to an incineration or disposal facility.	----------	S01, T04[4]	None	Declared hazardous based on organics.
				Weight/gallon, Percent Water, Percent Ash, BTU, Total Solids, Free Liquid	Additional parameters for offsite handling.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
J. Paint Plant Baghouse Dust	This is a solid waste generated from air pollution dust collection systems located at several points throughout the Paint Manufacturing Plant. Consists of pigment, resin, and other dry raw material particulates. This waste is shipped offsite to a disposal facility.	D007, D008, D009	S01	Cr, Pb, Hg EP Toxic - Cr, Pb, Hg Weight/gallon, Percent Water, Percent Ash, Total Solids, pH in water	Declared hazardous due to pigments. Additional parameters for offsite handling.
K. Resin Plant Baghouse Dust	This is a solid waste generated from an air pollution dust collection system located at the Resin Manufacturing Plant. Consists of raw material particulates. This waste is presently reused directly as a raw material but is identified as a waste in the event that it cannot be reused in the future. It had been shipped offsite to a disposal facility in the past.	————	S01	None Weight/gallon Percent Water, Percent Ash, Total Solids, pH in water	Declared hazardous due to organics. Additional parameters for offsite handling.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
L. Paint Plant Trade Washwater	Washwaters from cleaning latex paint production equipment. Physically/-chemically treated onsite supernatant is discharged to a POTW.	(D009)	T41[2]	Hg EP Toxic - Hg	Declared hazardous due to mercury in product.
				pH	Additional parameter for onsite exempt treatment.
M. Paint Plant Industrial Washwaters	Washwaters from cleaning industrial paint production equipment. Physically/chemically treated onsite. Supernatant is discharged to a POTW.	D001, D007, D008, D009	T41[2]	Flash Point	Possibly ignitable due to trace solvents.
				Cr, Pb, Hg EP Toxic - Cr, Pb, Hg	Declared hazardous due to metals in product.
				pH	Additional parameter for onsite exempt treatment.
N. Paint Plant Caustic Cleaning Water	Spent recycled caustic washwater from cleaning portable tanks used in paint production. Physically/chemically treated onsite. Supernatant is discharged to a POTW.	(D001), (D002), D007, D008, D009	T41[2]	Flash Point	Possibly ignitable due to solvents.
				pH	Possibly a corrosive waste.
				Cr, Pb, Hg EP Toxic - Cr, Pb, Hg	Declared hazardous due to metals in products.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
O. Resin Plant Caustic Cleaning Water	Spent caustic washwater from cleaning resin production equipment. This waste is generated infrequently. Physically/chemically treated onsite. Supernatant is discharged to a POTW.	(D001), (D002)	T41[2]	Flash Point	Possibly ignitable due to solvents.
				pH	Possibly a corrosive waste.
P. Resin Plant Wastewaters	This waste is a two-phase liquid by-product of resin manufacturing. The waste consists of mostly water with a small amount of soluble and insoluble organic solvents and/or other hydrocarbons. The organic phase is decanted into a blending tank; the water phase is discharged to the POTW.	(D001)	T38[2]	Flash Point	Possibly ignitable due to trace solvents.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
Q. Cationic Washwater	Washwater from cleaning process equipment and product tankwagons. It is physically/chemically treated onsite separate from other wastewaters due to physical incompatibility problems. The supernatant is discharged to the POTW. This waste is sometimes shipped offsite for physical/chemical treatment or incineration.	D001	T41[2]	Flash Point	Possibly ignitable due to trace solvents.
				pH	Additional parameter for onsite treatment.
R. Wastewater Treatment Supernatant	Treated water from all process wastewaters which is discharged to the POTW. Waste is currently exempt under RCRA regulations.	(D001, D007, D008, D009)	-----	None	Waste is currently exempt under RCRA regulations.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
S. Wastewater Treatment Sludges	This waste consists of solids that are physically/chemically separated from process wastewaters. The sludge is stored in drums or blended with other compatible water-base wastes in a tank prior to shipment offsite to an incineration, fuel blending or solidification/-disposal facility. Sludge in drums may also be treated with absorbents or solidification agents prior to offsite disposal.	(D001), D007, D008, D009	S01, T01 (T50)	Flash Point	Possibly ignitable due to trace solvents.
				Cr, Pb, Hg EP Toxic - Cr, Pb, Hg	Declared hazardous due to metal concentrations.
				Weight/gallon, viscosity, pH,	Additional parameters for onsite blending.
				Total Solids, Percent Ash, Percent Water, BTU, Free Liquid, Other RCRA metals	Additional parameters for offsite handling.
T. Paint Plant Caustic Sludge	Residues removed from the caustic cleaning recycling system. This waste is either blended in a tank with other compatible wastes or stored in drums prior to shipment to an offsite treatment, incineration or solidification/disposal facility.	(D001), D007, D008, D009	S01, T01, T04[4] (T50)	Flash Point	Possibly ignitable due to trace solvents.
				Cr, Pb, Hg EP Toxic - Cr, Pb, Hg	Declared hazardous due to metal concentrations.
				Weight/gallon, viscosity, pH, Compatibility, Free Liquid	Additional parameters for onsite handling.
				Total Solids, Percent Ash, Percent Water	Additional parameters for offsite handling.

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code(1)	Parameter	Rationale(3)
U. Floor Sweepings	Solid floor sweeping compound contaminated with dry raw material pigment and resin residues. This waste is usually added to an available paint plant waste filter drum as additional absorbent material.	D007, D008, D009	S01	None	Declared hazardous. Analysis on file. Metal concentration will vary widely from day to day.
V. Floor Cleaning Solution	Solvent or water floor cleaning wastes contaminated with pigments or other raw materials. Solvent is combined with dirty solvent wastes. Water is combined with washwater wastes.	D001, D007, D008, D009 or F003, F005	S01, T01, (T50) S02(2), T01(2)	None	Declared hazardous. Analysis on file. Waste is similar to and is combined with other plant wastes due to the low volume.
W. Discarded or Spilled Raw Materials	Many raw materials would be listed hazardous wastes if discarded or spilled. Wastes would be stored in drums or blended in tanks with other compatible wastes prior to shipment offsite.	P000-U000 See Part B Section C Attachment C-1-W for complete list of codes.	S01, T01 (T50)	None	Listed wastes if discarded or spilled. Physical properties can be obtained from Material Safety Data Sheets or Raw Material Supplier Information.

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TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
X. Off-Site Wastes	Off-specification or obsolete products returned to PPG Oak Creek and declared waste if it cannot be reworked. These wastes are managed the same as paint wastes.	Depends on the product composition.	S01, T01 (T50)	None	Product formulas are used to describe these materials.
	Wastes generated at offsite PPG product distribution centers consisting of solvent-base paint waste, water-base paint waste, dirty solvent and washwaters. The majority of the wastes come from small quantity generators.	D001, D006, D007, D008	S01, T01 (T50)	None unless the plant cannot identify the waste as falling in one of the regular categories.	Container markings, shipping papers and/or manifests identify the contents. The plant verifies the contents by visual inspection. The plant would be given prior notice if a new waste is to be shipped.
		D006, D007, D008, D009	S01, T01, T41[2] (T50)		
Y. Off-Specification Products	Onsite off-specification or obsolete products are occasionally declared waste when reuse or reformulation is not possible. These materials could be either paint or resin and would be managed in the same manner as paint and resin wastes.	Depends on the product composition.	S01, T01 (T50)	None	Product formulas are used to describe these materials.

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C

TABLE C-2-1

Waste Name	General Description	EPA Waste Code	Handling Code[1]	Parameter	Rationale[3]
Z. Laboratory Paint and Resin Wastes	Quality control samples taken from the production processes are discarded after analysis is complete and they are no longer needed. Samples are segregated by type, e.g. paint, resin, raw material, and by compatibility, e.g. corrosive versus flammable. These wastes are handled in the same manner as similar plant wastes.	Possibly D001, D002, D003, D004, D005, D006, D007, D008, D009 (depends on material)	S01, T01, (T50) T41[2], S02[2]	None unless the plant must segregate the waste from other plant wastes for special handling.	Lab wastes which fall into a regular plant waste category are analyzed under under that category.

Legend

(1) Refer to handling codes in 40 CFR 264 Appendix I Table 2

(2) Equipment is not regulated; temporary storage or exempt treatment

(3) Additional parameters listed for offsite handling or exempt treatment are optional and will be checked at PPG's discretion

(4) Free Liquid Removal or Treatment

( ) Code may or may not apply

Waste Analysis Plan.

Table C-2-2

TEST METHODS FOR EVALUATING SOLID WASTE (SW-846), 2nd Edition, 1982

Parameter	Test Method Reference
Flash Point	ASTM D-3278-78 Setaflash Closed Cup / SW-846 Method 1020
	PPG Std. 428. Flash point by Pensky-Marten Closed Cup Tester. Reference ASTM D93-79 or ASTMD-93-80 / SW-846 Method 1010.
pH	EPA 600/4-79-020, March 1979 Methods for Analysis of Water and Wastes; Method 150.1. / SW-846 Method 9040-9041
EP Toxicity	40 CFR 261, Appendix II EP Toxicity Test Procedure / SW-846, Method 1310
Metals	40 CFR 261, Appendix III, Table 2 / SW-846
General	Method 8.49
Arsenic	Method 8.51 ---Method 7060, 7061
Barium	Method 8.52 ---Method 7080, 7081
Cadmium	Method 8.53 ---Method 7130, 7131
Chromium	Method 8.54 ---Method 7190, 7191
Lead	Method 8.56 ---Method 7420, 7421
Mercury	Method 8.57 ---Method 7470
Selenium	Method 8.59 ---Method 7740, 7741
Silver	Method 8.60 ---Method 7760, 7761
	EPA 600/4-79-020, March 1979 Methods for Analysis of Water and Wastes / SW-846
Calcium	Method 215.1
Chromium (+6)	Method 218.4 ---Method 7195,7196,7197
Copper	Method 220.1 or 220.2---Method 7210, 7211
Iron	Method 236.1 or 236.2
Magnesium	Method 242.1
Manganese	Method 243.1 or 243.2
Nickel	Method 249.1 or 249.2---Method 7520, 7521
Potassium	Method 258.1
Sodium	Method 273.1
Zinc	Method 289.1 or 289.2---Method 7950, 7951

	EPA 600/4-79-020, March 1979 Methods for Analysis of Water and Wastes
Total Suspended Solids	Method 160.1 Filterable Residue
Total Dissolved Solids	Method 160.2 Non-Filterable Residue
BOD_5	Method 405.1
COD	Method 410.2
TOC	Method 415.1
Volatile Organics	40 CFR 261, Appendix III Tables 2,3 Methods 8.01,8.02,8.03,8.04,8.06,8.09,8.10,8.24,8.25, 8.80,8.82,8.83,8.84,8.85/SW-846 8015,8020,8030,8040, 8060,8090,8100,8240,8250,8270. 44 FR 69464-69567, December 3, 1979 Appendix I, Gas Chromatographic and HPLC Methods - Methods 601-612 (Proposed Regulations).
Heating Value	ASTM D2015 Gross Calorific value of solid fuel by the Adiabatic Bomb Calorimeter.(for liquids also)
Total Nitrogen	PPG Std. 262. Determination of Total Nitrogen in Nitrogen-coating Plastics, Resins and Resin Solutions. References: ASTM D1013-70; DIN 51722 or other equivalent.
Percent Water	PPG Std. 12A. Determination of Water by Catalyzed Karl Fischer Titration. References: ASTM D-1364 Water in Volatile Solvents ASTM DO 1.21.54 Water Content in Paints by Karl Fischer Titration.
Moisture	PPG Std. 101. Moisture in Pigments
Total Solids	EPA 600/4-79-020, March 1979. Methods for Analysis of Water and Wastes. Method 160.3 PPG Std. 190. Non-Volatile Content of Paint, Resins and Related Materials at 105°C, and 150°C. References: ASTM D 1259-61, Federal Test Std. No. 141a. Method 4041.1.
Percent Ash	EPA 600/4-79-020 Method 160.4. Volatile Residue PPG Std. 124. Determination of Ash at 600°C or 850°C. References: ASTM D2077-72, ASTM D 29-73.

Viscosity	PPG Std. 28. Viscosity Determination by Means of a Brookfield Viscometer.
Specific Gravity of Liquids	PPG Std. 7. Reference: Federal Specification TT-P-14 1b. Method 418.3
Specific Gravity of Pigments	PPG Std. 7a. Reference: Federal Specification TT-P-14 1b, Method 418.1
Density	PPG Std. 10 References: ASTM D1475-60: Density of Paint Varnish, Lacquer, and Related Products DIN 53217: Determination of Density by the Pycnometer. (Weight/gallon cup) ISO 2811-1974 (E): Paints and Varnishes - Determination of Density
Physical Compatibility Check	Bench scale test. Combine grab samples from individual waste containers in proportions to be mixed in the tank. Wastes should be combined slowly and mixed evenly. Observe whether material mixes easily and homogeneously. Any compatibility test mixture that releases gases, generates heat or otherwise changes physical characteristics should be considered incompatible for the purposes of this test and removed to a laboratory hood.
Free Liquid Test	SW-846 Method 9095

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TABLE C-2-3

WASTES AND SAMPLING METHODS

General Waste Type	Handling Method	General Sampling Method	Reference
Liquid Wastes	Agitated Tanks/Recirculating Tanks	Agitate tank contents thoroughly to suspend all solids. Clear sample line on tank side or bottom to remove any previous sample residue. Withdraw sample into appropriate sample container, seal, and label for shipment to lab.	EPA-SW-846 Test Methods for the Evaluation of Solid Waste. Section 1.4.2.
	Bulk Tanker ready for shipment	Withdraw sample from top opening in tank truck with a Composite Liquid Waste Sampler (COLIWASA).	EPA-SW-846 Section 1.2.1.1. and 1.4.2.
Containerized Pumpable Liquid Waste	Drums	Agitate drum, if possible, and withdraw a sample through the bung hole or after removing the lid by using a COLIWASA.	A random number of drums will be sampled to obtain a representative composite. EPA-SW-846 Section 1.2.1.1. and 1.4.1.
	Small Containers	Shake or otherwise agitate the container, if possible, then withdraw a representative grab sample using a device similar to a dipper.	EPA-SW-846 Section 1.2.1.3.

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C

TABLE C-2-3

General Waste Type	Handling Method	General Sampling Method	Reference
Containerized Dry Solid Waste	Drums	Withdraw sample using a scoop or thief.	A random number of drums will be sampled to obtain a representative composite. EPA-SW-846 Sections 1.2.1.4. and 1.2.1.7. ASTM D2234-75 — Crushed or powdered material
Filter Waste	Drums	Withdraw one filter of each color available. Cut each in half and place each in its own sample container. Mark the container with the filter color.	No specific reference; random grab sampling.
Soil Contaminated with Hazardous Waste Residue	Ground before Cleanup	Establish a sampling grid and collect samples with a soil auger or veihmeyer soil sampler.	EPA-SW-846 Section 1.2.1.6. and EPA-600/2-80-018, pg. 17.
	Drum	Withdraw sample using a scoop or thief.	A random number of drums will be sampled to obtain a representative composite. EPA-SW-846 Sections 1.2.1.4. and 1.2.1.7. ASTM D2234-65 — Soil Like Material

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C

TABLE C-2-3

General Waste Type	Handling Method	General Sampling Method	Reference
Extremely Viscous Liquid	Drums	Same as for Containerized Pumpable Liquid Waste if it can be agitated to a homogeneous mixture. or Follow ASTM D140-70 Extremely Viscous Liquid Method.	A random number of drums will be sampled to obtain a representative composite. EPA-SW-846 Sections 1.2.1.1 and 1.4.1. ASTM-D140-70.

SAMPLE/ANALYSIS REQUEST FORM

Attachment C-2-1

[ ] Sample Submission from Plant

[ ] Sample Request from Environmental Engineering

FIELD DATA:

Date: _____

Location: _____

Address: _____

Phone: _____

Sample Description: _____

Sample Type: [ ] Grab [ ] Composite

Date Sampled: _____

Time Sampled: _____ (AM/PM)

Sampling Method: _____

_____

Preservation Method: _____

_____

Other Remarks: _____

_____

Collector Name: _____

Special Handling or Storage: _____

SHIP TO: Environmental Control Laboratory - Att'n: James Robinson
PPG Industries, Inc. (412) 487-4500
4325 Rosanna Drive
Allison Park, PA 15101

CHAIN OF CUSTODY CHRONICLE

SAMPLE NO.: _____

1	I have received this sample in good condition from the above person PRINT Name: _____ Company: _____ Date: _____ Signature: _____ Time: _____ (AM/PM) Remarks: _____
2	I have received this sample in good condition from the above person PRINT Name: _____ Company: _____ Date: _____ Signature: _____ Time: _____ (AM/PM) Remarks: _____
3	I have received this sample in good condition from the above person PRINT Name: _____ Company: _____ Date: _____ Signature: _____ Time: _____ (AM/PM) Remarks: _____
4	I have received this sample in good condition from the above person PRINT Name: _____ Company: _____ Date: _____ Signature: _____ Time: _____ (AM/PM)

C-1. Attachment A.

Paint Plant Dirty Solvent
(F003, F005)

General Description:

Liquid	- Single Phase
Flash Point	<100°F
Heating Value	10,000 - 15,000 BTU/lb
Total Resin Solids	1 - 5%
Total Pigment Solids	1 - 5%
Solvents	85 - 97%
Water	1 - 10%
Weight/Gallon	7 - 7.5 lb/gal

Basis for hazardous designation:

Listed for ignitability and toxicity depending on solvents.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040558
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0068-00 - Dirty Solvent -- Paint Plant

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.44	mg/l
M040	Barium (Ba)	1.0	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	6.6	mg/l
M200	Lead (Pb)	6.9	mg/l
M250	Mercury (Hg)	1.4	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	15	mg/l
M141	Chromium, Hexavalent(Cr+6)	INT	
M150	Cobalt (Co)	< 0.1	mg/l
M160	Copper (Cu)	2.7	mg/l
M190	Iron,total (Fe)	360	mg/l
M230	Magnesium (Mg)	9.5	mg/l
M240	Manganese (Mn)	71	mg/l
M270	Nickel (Ni)	0.9	mg/l
M310	Sodium (Na)	34	mg/l
M320	Strontium (Sr)	14	mg/l
M390	Zinc (Zn)	1.7	mg/l
OF01	Xylenes	29000	mg/l
OF04	Acetone	< 4000	mg/l
OF05	2-butanone	170000	mg/l
OF08	4-methyl-2-pentanone	110000	mg/l
OM32	Butyl Cellosolve	23000	mg/l
OM58	i-Butanol	< 50000	mg/l
OM79	Cellosolve Acetate	580	mg/l
OV03	Benzene	< 2000	mg/l
OV22	Methylene Chloride	< 2000	mg/l
OV25	Toluene	30000	mg/l
S015	% Ash @ 550 C	0.3	%

RECEIVED MAY 16 1985 ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

C-1-A(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101
ATTENTION: CHRIS BABKA

REPORT DATE: 05/15/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040558-
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0068-00 - Dirty Solvent -- Paint Plant

TEST	DETERMINATION	RESULTS	UNITS
S040	British Thermal Units	15000	BTU/lb
S064	Chlorine, Organic	< 0.1	%
S098	Fluorine, Organic	0.03	%
S165	% Solids, total at 103 C	4.0	%
S168	Specific Weight	7.2	lb/gal
S195	% Water (Karl Fisher)	4.9	%
S210	Viscosity	6.0	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W032	Ammonia as N (distillation)	< 1	mg/l
W270	Cyanide, total (CN)	< 0.1	mg/l
W435	Nitrogen, Kjeldahl (N)	68	mg/l
W440	Nitrogen, Organic (N)	68	mg/l
W500	Phenolics	16	mg/l
W740	Sulfide (S)	< 4	mg/l

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MAY 16 1985
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COMMENTS: INT for Cr+6 because sample was not soluble in water.
< means detection Limit. Benzene and chlorinated compounds should be much less than detection limits. /CMB

C-1-A(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041215
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0068-03A - Dirty Solvent Extract -- Paint Plant

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.43	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.3	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.03	mg/l
M290	Selenium (Se)	0.31	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

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JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-A(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85-00699-00 LOCATION: OAK CREEK

DATE REC'D: 3-8-85 DATE SAMPLED: 12-19-85

ANALYSIS	DATE	RESULTS					
T.E.P.	4-3-85	SOLIDS	110gm	INIT. DiH_2O	1760ml	FINAL DiH_2O	211ml
	used	ACID SOLN.	229ml	INIT. pH	8.5	FINAL pH	4.4
F.PT.			20°F				
% SOLIDS			____				
C.O.D.			____ mg/l				

OTHER:

pH- 4-3-85 8.0

RECEIVED
MAY 14 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-71 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

SIGNED: James Robinson DATE: 5-10-85

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

REPORT DATE: 06/04/85

ATTENTION: MS. CHRIS BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042198
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0131-03 - Paint Plant Dirty Solvent

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	0.28	mg/l
I040	Barium (Ba)	680	mg/l
M090	Cadmium (Cd)	0.12	mg/l
I140	Chromium (Cr)	32	mg/l
M200	Lead (Pb)	26	mg/l
I250	Mercury (Hg)	1.8	mg/l
M290	Selenium (Se)	< 0.04	mg/l
I300	Silver (Ag)	< 0.1	mg/l
OF01	Xylenes	42000	mg/l
IF05	2-butanone	< 20000	mg/l
OF08	4-methyl-2-pentanone	130000	mg/l
IN32	Butyl Cellosolve	60000	mg/l
OV25	Toluene	37000	mg/l
S015	% Ash @ 550 C	4.6	%
S040	British Thermal Units	15000	BTU/lb
S165	% Solids, total at 103 C	7.8	%
S168	Specific Weight	7.3	lb/gal
S195	% Water (Karl Fisher)	9.1	%
S210	Viscosity	9.0	CP
I270	Cyanide, total (CN)	0.35	mg/l
W500	Phenolics	13	mg/l

RECEIVED
JUN 06 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-A(-6)

Reviewed and Approved by: JMC

C-1. Attachment B.

Resin Plant Dirty Solvent
(F003, F005)

General Description:

Liquid	- Single Phase
Flash Point	<100°F
Heating Value	10,000 - 15,000 BTU/lb
Total Resin Solids	1 - 5%
Total Pigment Solids	0 - 0.5%
Solvents	90 - 99%
Water	0 - 5%
Weight/Gallon	7 - 7.5 lb/gal

Basis for hazardous designation:

Listed for ignitability and toxicity depending on solvents. Analysis should be similar to Paint Plant Dirty Solvent except it does not have pigment solids.

C-1. Attachment C.

Solvent Recovery Still Sludge
(F003, F005)

General Description:

Liquid	- Single Phase Pumpable Sludge
Flash Point	<100°F
Heating Value	9,000 - 15,000 BTU/lb
Total Resin Solids	10 - 40%
Total Pigment Solids	5 - 25%
Solvents	40 - 70%
Water	1 - 15%
Weight/Gallon	7.9 - 9.2 lb/gal

Basis for hazardous designation:

Listed for ignitability and toxicity depending on solvents.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040556
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0066-03 - Solvent Recovery Sludge

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.14	mg/l
M040	Barium (Ba)	170	mg/l
M090	Cadmium (Cd)	0.27	mg/l
M140	Chromium (Cr)	32	mg/l
M200	Lead (Pb)	39	mg/l
M250	Mercury (Hg)	5.8	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	750	mg/l
M141	Chromium, Hexavalent(Cr+6)	INT	
M150	Cobalt (Co)	18	mg/l
M160	Copper (Cu)	10	mg/l
M190	Iron,total (Fe)	420	mg/l
M230	Magnesium (Mg)	50	mg/l
M240	Manganese (Mn)	22	mg/l
M270	Nickel (Ni)	1.6	mg/l
M310	Sodium (Na)	340	mg/l
M320	Strontium (Sr)	33	mg/l
M390	Zinc (Zn)	700	mg/l
OM48	Maleic Anhydride	< 10000	mg/l
OV06	Carbon Tetrachloride	< 2000	mg/l
OV22	Methylene Chloride	< 2000	mg/l
OV25	Toluene	< 2000	mg/l
OV30	Trichlorofluoromethane	< 2000	mg/l
S015	% Ash @ 550 C	21	%
S040	British Thermal Units	14000	BTU/lb
S064	Chlorine, Organic	< 0.1	%
S098	Fluorine, Organic	< 0.01	%
S165	% Solids, total at 103 C	29.9	%
S168	Specific Weight	8.2	lb/gal

RECEIVED
MAY 16 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

C-1-C(-2)

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101
ATTENTION: CHRIS BABKA

REPORT DATE: 05/15/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040556
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0066-03 - Solvent Recovery Sludge

TEST	DETERMINATION	RESULTS	UNITS
S195	% Water (Karl Fisher)	1.2	%
S210	Viscosity	35	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W032	Ammonia as N (distillation)	5.2	mg/l
W270	Cyanide, total (CN)	0.3	mg/l
W435	Nitrogen, Kjeldahl (N)	< 50	mg/l
W440	Nitrogen, Organic (N)	< 50	mg/l
W500	Phenolics	50	mg/l
W740	Sulfide (S)	< 5	mg/l

RECEIVED
MAY 16 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: INT for Cr+6 because sample was not water soluble. < means detection limit. Chlorinated compounds should not be as high as detection limits.

C-1-C(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041480
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0066-03A - Solvent Recovery Sludge Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.30	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	8.2	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.005	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection Limit

C-1-C(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85-006600 LOCATION: OAK CREEK

DATE REC'D: 3-8-85 DATE SAMPLED: _____

ANALYSIS	DATE	RESULTS					
T.E.P.	4-1-85	SOLIDS	110 gm	INIT. DiH_2O	1760 ml	FINAL DiH_2O	414.2 ml
	used	ACID SOLN.	25.8	INIT. pH	5.6	FINAL pH	5.0
F.PT.			____				
% SOLIDS			____				
C.O.D.			____ mg/l				

OTHER:

pH 4-2-85 6.7

RECEIVED
MAY 14 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-77 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

E - A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 8165

Dan Scudder
PPG

Subject: Laboratory anlaysis of waste sample for Barium

Date: 9/4/84

P.O. #

Sample: 7/31/84

(organic sludge sample returned from Systech)

Date	7/31/84	7/31/84
Sample Identification	7/31/84	7/31/84
Lab I.D. Number	8034	8034
Units	ppm/Wet Weight	ppm/Dry Weight
Barium	6.30	23.63

C-1-C(-6)

LAB MANAGER: K Jefferson

LABORATORY REPORT

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

Report No. 6660

To Dan Scudder
PPG Industries

Subject Laboratory analysis of sludge samples for Barium

Date 4/17/84

P.O. #

Sample 3/13,15/84

	Organic Tank 3/13	Organic 3/15
Barium, Total	308.3 mg/kg	343.0 mg/kg

C-1-C(-7)

LAB MANAGER: R. J. Schroeder

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 6452

To Dan Scudder
PPG Industries

Subject Laboratory analysis of organic still bottoms:

Date 3/5/84

P.O. #

Sample 2/2/84

	2/2/84 mg/l
Barium	217.8
% Solids	25.99
% Ash	3.82

C-1-C(-8)

LAB MANAGER: Michael Koleson

CBC
AQUASEARCH
140 EAST RYAN ROAD (414) 764-7005
OAK CREEK, WISCONSIN 53154 - 4599

LABORATORY NUMBER	DATE	PAGE
#83-5176	9/8/ 83	1

LABORATORY REPORT

PPG INDUSTRIES INC.
10800 S. 13TH STREET
OAK CREEK, WI 53154

ATTN: DAN SCUDDER

REFERENCE METHOD:

DATE RECEIVED	DATE COLLECTED
7/8/83	N/A

SAMPLE NAME: ORGANIC SLUDGE

ACCOUNT NUMBER: #771

XX STANDARD METHODS, APHA, 15th EDITION, 1980.
XX METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTE, EPA, 1979.
☐ TEST METHODS FOR THE EVALUATION OF SOLID WASTE, PHYSICAL, CHEMICAL METHODS, EPA, 1980.

PARAMETER	SAMPLE	EP TOXICITY LIMITS
CADMIUM	0.88	1.0
HEXAVALENT CHROMIUM	3.1	5.0
TOTAL CHROMIUM	920	5.0
COPPER	4.0	
LEAD	160	5.0
NICKEL	2.2	
ZINC	1,100	
BARIUM	510	100
SILVER	0.15	5.0
IRON	2,300	
MAGNESIUM	160	
ARSENIC	0.041	5.0
SELENIUM	-0.01	1.0
MERCURY	0.12	0.2
MANGANESE	38	
SODIUM	38	
CALCIUM	2,300	
FLASH POINT	90°F	
TOTAL CYANIDE	1.4	
% SOLIDS	23%	
SPECIFIC WEIGHT	1.053	

* ALL UNITS ARE EXPRESSED AS:
☐ MG/L ☑ PPM
☐ MG/KG

C-1-C(-9)

9/10/83
DATE

LABORATORY SUPERVISOR

CBC
AQUASEARCH
140 EAST RYAN ROAD (414) 764-7005
OAK CREEK, WISCONSIN 53154 - 4599

LABORATORY NUMBER	DATE	PAGE
#83-5176	9/8/83	2

COMPANY NAME: PPG INDUSTRIES INC.

PARAMETER	SAMPLE
% ASH	14%
% WATER	35.33
TOTAL VOLATILE ORGANICS	UNABLE TO RESOLVE WITHOUT MASS SPEC IDENTIFICATION
VISCOSITY (CPS)	78.4
PHENOLS	7.0
BTU'S	7,130
FLUORIDES	-1.0
KJELDAHL NITROGEN	1900
AMMONIA NITROGEN	2.6
TOTAL ORGANIC NITROGEN	1897
TOTAL SULFUR	0.42%
CHLORIDES	-10

A (-) SIGN DENOTES A 'LESS THAN' VALUE.

C-1-C(-10)

*UNITS ARE EXPRESSED IN MG/L UNLESS OTHERWISE STATED

9/10/83
DATE

LABORATORY SUPERVISOR

LH

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 South 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643- 2761

DATE: 5/29/81

PURCHASE ORDER NO.: 19354 REXNORD WORK ORDER NO.: FG41435

Analysis of organic still sludge sample submitted on April 24, 1981.

Solids (%)

Total Solids	28.03%
Volatile Solids	20.83%
Non-Volatile Solids (calculated)	7.20%

Metals (mg/l)

As	0.005	Pb	360
Ba	156	Mg	110
Cd	0.55	Mn	32
Ca	4500	Hg	5.6
Cr^{+3}	11	Ni	1.5
Cr^{+6}	<0.1	Se	<0.5
Cu	12	Ag	<0.01
Fe	3300	Na	1200
		Zn	1500

Total Volatiles, 71.97% (calculated)

% of Water	14%
% Solvents	57.97% (calculated)
	(48.66% identified)
Butyl Cellosolve	4.5%
Xylene (Total)	17.6%
MIBK	10.8%
n-butanol	3.66%
i-butanol	4.63%
Toluene	2.9%
Cellosolve Acetate	1.5%
Benzene	0.2%
Styrene	0.13%
MEK	2.5%
Acetone	0.24%
Density:	0.95 ~~lbs/gal~~ lb/gal. = 7.9 LB/gal
Viscosity:	40 cp
Heating Value:	11,945 BTU/lb
Flash Point:	<75°F

Thank you for your order.

C-1-C(-11) Steve Galewski

Steve Galewski

CC - File CC Waste Analy

CHRIS BABKA
SPRINGDALE R&D

Rexnord

LABORATORY REPORT

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643- 2761

TO: Mr. Howard Timian
PPG Industries Inc.
Coatings and Resins Division
10800 S. 13th Street
Oak Creek, WI 53154

Date: 1-27-81

Purchase Order No.: 18889 Rexnord Work Order No.: FG 41379

Still sludge sample submitted on January 12, 1981.

Substance	Concentration
% Solids	39.2%
% Water	13.3%
Density	8.42 lbs/gal.
Viscosity	400 cps @ 23°C
Heating Value	9,317 BTU/lb
% Solvent	47.5%
Flash Point	85°F

RECEIVED
FEB - 4 1981

Thank you for your order.

C-1-C(-12)

Steve Galewski
Signature

~~FILE~~ - FILE

PPG INDUSTRIES

INTER-OFFICE CORRESPONDENCE

Date: October 30, 1980

From: C. M. Babka

Location: Springdale R&D

Subject: Oak Creek Organic Waste (Still Sludge)

To: M. Scheerbaum/H. Timian
Oak Creek

The following is a summary of the results on this waste stream. Sample was taken week of 4/20/80.

Total Solids	46.3%
% Ash or Non-volatile solids	14.8% 13.47% Ave. 14.1%
% Volatile Solids or Resins (calculated)	32.2%

Metals (ppm) (1.65% Identified)

As	<10	Pb	1800
Ba	1300	Mg	720
Cd	<1	Mn	51
Ca	4600	Hg	<10
Cr^{+3}	730	Ni	10
Cr^{+6}	<1	Se	<10
Cu	23	Ag	<1
Fe	4650	Na	1800
		Zn	780

Total Volatiles (calculated)	53.7%
% Water	8.93%
% Solvents (calculated)	44.77%
	(31.71% identified)
Butyl Cellosolve	15%
Xylene (Total)	8.9%
MIBK	1.7%
n-butanol	1.6%
i-butanol	1.5%
Toluene	1.4%
Cellosolve Acetate	.96%
Benzene	.46%
Styrene	.09%
MEK	.053%
Acetone	.047%

FORM 503-A REV. 6-1-70

Wt/Gallon	8.85 lb/gallon
Flash Point	82°F

C. M. Babka

C. M. Babka

/n

cc: L. N. Streff

ENVIRONMENTAL SAMPLE RESULTS SHEET

K 008

Date Submitted: 6/26/80

Date Completed:

Date Released:

K 008

I.H. Sample #:

Submitted By: C.M. Babka

Extension: 337

Result To: C.M. Babka

Source: Dark Creek Still Sludge (rec'd 4/20/80)

Check for all except those marked "X"

Parameter	Date	Result	Reference
Arsenic (As)	230ct	<10	↑ - 50
Barium (Ba)	210ct	1300	AA80-47
Cadmium (Cd)	230ct	<1	↓ -51
Calcium (Ca)	220ct	4600	↓ - 48
Chromium (Tot.)(Cr	5 Aug	730	AA80-10
Chromium +6 (Cr)	170ct	<1	IH3-76
Copper (Cu)	210ct	23	AA80-46
Iron (Fe)	220ct	4650	↓ - 48
Lead (Pb)	3 Aug	1800	AA80-11
Magnesium (Mg)	220ct	720	↓ - 49
Manganese (Mn)	210ct	51	AA80-46
Mercury (Hg)	220ct	<10	↓ - 50
Nickel (Ni)	210ct	10	AA80-47
Selenium (Se)	220ct	<10	↓ - 49
Silver (Ag)	13 Aug	<1	AA80-13
Sodium (Na)	14 Aug	1800	↓ - 15
Solids; suspended X			
Solids; dissolved X			
Solids; total	8 JL	46.3%	IH3-59
Solids; ~~volatile~~ Non-Volatile	↓	14.8%	↓
Zinc (Zn)	230ct	780	AA80-51
~~Beryllium~~			

Parameter	Date	Result	Reference
Acetone	30 JN	470	IH3-66
Methyl Ethyl Ketone		530	
Methyl, i-Butyl Ketone		1.7%	
Toluene		1.4%	
i-Butanol		1.5%	
n-Butanol		1.6%	
Ethyl Benzene		N.R.	
Xylene (Tot.)		8.9%	
Styrene		900	
Cellosolve Acetate		9600	
Ethyl Cellosolve		N.I.	
Butyl Cellosolve		15.%	
Hexyl Cellosolve		N.I.	
ethyl acetate		N.I.	
benzene		4600	

see attached sheet for unident peaks

% results as wght/vol

results in µg/ml unless noted (ppm)

Laboratory/Supervisor/Director:

C-1-C(-15) Date: 10/23/80

Note 7 ≡ 7

file
O.C. Waste
Analyses

PENN ENVIRONMENTAL CONSULTANTS, INC.
FORT PITT PROFESSIONAL BUILDING
1517 WOODRUFF STREET
PITTSBURGH, PA. 15220
412-381-1133

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 151 COLFAX STREET
SPRINGDALE, PA 15144

PEC PROJECT NO: 0165-00
PEC JOB NUMBER: 9650
PEC SAMPLE NO: 55132

REPORT DATE: 06.09.80

ATTENTION: MR. JIM DIXON

DATE RECEIVED: 05.21.80

SAMPLE IDENTIFICATION: OAK CREEK STILL SLUDGE wk of 4/20/80

PARAMETER	SYMBOL	RESULTS	UNITS
CHLORIDE	CL	47	MG/L
TOTAL CYANIDE	CN	< .005	MG/L
FLUORIDE DISTILLATION	F,DIST	12	MG/L
PHENOLS	PHENOL	124	MG/L
TOTAL SULFUR	S	149	MG/L

C-1-C(-16)

MMENTS:

Reviewed and Approved by:

cc: MS. CHRIS BABKA

RECEIVED
JUN 11 1980
ALLEGHENY COUNTY
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

Chemical Waste Management

W124 N9451 Boundary Road / Menomonee Falls. WI 53051

Analytical Laboratory Report

Customer PPG, Ind. C/R No. 11687

Address 10800 S. 13th St. Oak Creek, WI 53154 P.O. No. 12-595

SAMPLE INFORMATION:

Organic waste-still bottoms from solvent recovery

Date Sampled: 3/1/79 Date Received: Feb. 3, 1979

pH		Arsenic, ppb	
Acidity, % as		Barium, as Ba, mg/l	
Alkalinity, % as		Cadmium, as Cd, mg/l	0.18
Specific gravity, g/cm³	0.9496	Chromium, Total, as Cr, mg/l	185
COD, mg/l		Chromium, hexav., as Cr, mg/l	15.36
BOD, mg/l		Copper, as Cu, mg/l	
Total solids, @ 105C		Iron, as Fe, mg/l	
Suspended solids		Lead, as Pb, mg/l	33
		Mercury, ppb, as Hg	0.510
Flash point, F	69° F.	Nickel, as Ni, mg/l	
Heating value, BTU/lb		Selenium, as Se, mg/l	
		Silver, as Ag, mg/l	
Cyanides, as Cn, mg/l		Zinc, as Zn, mg/l	688
Phenols, mg/l	1.395		
Chlorides, as Cl, mg/l		Soluble in:	
Sulfides, mg/l			
Fluorides, mg/l			

REMARKS:

Chromium, lead, and zinc levels

The metals level is high and may require fixation in the future.

Cadmium

C-1-C(-17)

Janet Burrows
Analyst

3/14/79
Date Completed

WM 101

PPG INDUSTRIES, INC.

10800 South 13th Street, POB 28
Oak Creek, Wisconsin 53154

(414) 764-6000

Contact: Dan Scudder, Environmental Engineer

Organic Waste

Generation Rate: 600000 gallon/yr

Total Solids	25-50%
Total Volatile Solids (resins)	20-40%
Total Non-volatile Solids (% Ash @ 550°C)	5-20%

Total Volatiles	50-75%
% Water	1-20%
% Solvents	40-60%

Metals, mg/l ≡ ppm

Arsenic	<.005 - 10	Calcium	1000-5000
Barium	10 - 1500	Copper	1-25
Cadmium	.5 - 5	Iron	2000-5000
Cr (total)	10 - 750	Magnesium	100-1000
Cr^{+6}	<.1 - 1	Manganese	25-100
Lead	300 - 2000	Nickel	1-20
Mercury	3 - 10	Sodium	500-2000
Selenium	<.5 - 10	Zinc	500-2000
Silver	<.01 - 1		

Solvent, %	
Butyl Cellosolves	5-15
Xylene	5-20
MIBK	1-15
n-Butanol	1-5
i-Butanol	1-5
Toluene	1-5
Cellosolve Acetate	1-5
Benzene	.1-.5
Styrene	.05-.2
MEK	.05-5
Acetone	.05-.5

weight/gallon	7.9 - 9.2 lb/gallon
Flash Point, P.M.C.C.	<100°F
Viscosity	40-100 cps
Heating Value	7000-12000 Btu/lb.
Total Cyanide	<.005 ppm
Phenols	<150 ppm
Fluorides	<10 ppm
Total Organic Nitrogen	< 2%
Sulfur	<.5%
Chlorides	<.5%

DOT Shipping Name:	Waste Paint
DOT Hazard Class:	Flammable Liquid
DOT ID Number:	UN1263
EPA Waste Code:	F003, F005

12/15/81: C. M. Babka

new survey: check for 1.) chlorine
2.) pH
3.) Density

oremost-McKesson
hemical Group

lcKesson Envirosystems Co.
27 West Berry Street
00 Commerce Building
ort Wayne, IN 46802
19 424-1940

McKESSON ENVIROSYSTEMS

Spent Material / Waste Products Survey

FOR C USE

Please provide all information requested below, then return this form to your local McKesson Chemical Representati

COMPANY	SIC NUMBER
PPG Industries	2851 and 2821
MAILING ADDRESS	**PRODUCT CODE**
10800 S. 13th St., Oak Creek, WI. 53154	

DESCRIPTION OF SPENT MATERIAL / WASTE PRODUCT: Solvent recovery still Bottoms

INDICATE PROCESS WHICH GENERATES THIS SPENT / WASTE (BE SPECIFIC)

VOLUME	FREQUENCY			PACKING	
12,000 to 22,000 gallons	PER MONTH X	PER YEAR	ONE TIME	IN DRUMS	IN BULK X

PHYSICAL PROPERTIES: (DATE OF LAB ANALYSIS 12/81 revised 7/83)

PHYSICAL STATE AT 70°F

SOLID ____ LIQUID X FLASH POINT <100°F

SEMI-SOLID ____ PH ~7.0

SPECIFIC GRAVITY ~1.0 % CHLORINE ____

% SULFUR <0.5% BTU PER LB/GAL 7,000-12,000

HAZARDOUS PROPERTIES:

DESCRIBE—

Flammable

Listed waste F003, F005

Possibly EP toxic for D006, D007, D008, D009

EPA / DOT IDENTIFICATION:

EPA HAZARDOUS WASTE NUMBERS UN1263 EPA HAZARD CODES F003, F005

DOT HAZARDOUS MATERIAL DESCRIPTION WASTE PAINT

CHEMICAL COMPOSITION:

SUBSTANCE	MIN	MAX	TYP	SUBSTANCE	MIN	MAX	TYP
Solvents	30	70					
Solids	20	60					
WATER	1	2.5					

GENERAL:

1. PLEASE PROVIDE LAB ANALYSIS IF HEAVY METALS, CYANIDES, PESTICIDES, CARCINOGENS OR OTHER TOXICS ARE INVOLVED.

2. PLEASE DISCUSS ANY OTHER INFORMATION WHICH MAY HELP McKESSON BE OF SERVICE:

This waste stream can be variable in its chemical composition. Expected ranges are indicated on the attached analysis from 12/15/81

PLEASE ATTACH ANY ADDITIONAL HAZARD AND HANDLING INFORMATION TO THIS SHEET.

TO THE BEST OF MY KNOWLEDGE AND ABILITY TO DETERMINE THIS IS A COMPLETE AND ACCURATE DESCRIPTION OF THIS MATERIAL.

C-1-C(-19)

SIGNATURE	TITLE
[signature]	Environmental Engineer
PHONE NUMBER (INCLUDE AREA CODE)	DATE: 12/27/83 — EPA IDENTIFICATION NO.

Oak Creek Organic Waste
PPG Sample #E-1424
DOT Shipping Name: Waste Paint Mixture
DOT Hazard Class: Flammable Liquid
DOT Code Number: UN1263
EPA Waste Codes: F003, F005
Generation Rate: 600000 gallons/year

SYSTECH WASTE FORM

Application Number

Generator PPG Industries, Inc.
10800 South 13th Street
Oak Creek, WI 53154 (WID059972935

Date 12/17/81
C. M. Babka (412) 274-4500, Ext. 337

PART 3. SAMPLE ANALYSIS

A. Physical/Chemical Parameters

Heat Content	7000 - 12000	Btu/#
Viscosity	40-100	Centipoise
Solids	25-50%	Percent volume
Sulfate	<.5%	Percent weight
Nitrate	< 2%	Percent weight
Halogens	Cl <.5%, F <.5%	Percent weight
Aqueous Extraction	-	pH
Water (Separated Phase)	1-20%	Percent volume
Ash	5-20%	Percent weight
Specific Gravity	.95 - 1.1	

B. Organic Analysis

Constituents as identified by gas chromatograph

Cellosolves	5-15 %	Cellosolve Acetate	1-5 %
Xylene	5-20 %	Styrene	.05 - 2 %
MIBK	1-15 %		%
MEK	.05 - 5 %		%
Butanols	1-5 %		%
Toluene	1-5 %		%
Acetone	.05-.5 %	Benzene	.1 - .5 %

C. Metals Analysis (concentration in combustible stream)

Zinc	500-2000 ppm	Arsenic	< .005-10 ppm
Chromium	10 - 750 ppm	Barium	10 - 1500 ppm
Copper	1-25 ppm	Cadmium	.5 - 5 ppm
Lead	3000-2000 ppm	Mercury	3-10 ppm
Manganese	25-100 ppm	Selenium	< .5 - 10 ppm
Nickel	1-20 ppm	Silver	<.01 - 1 ppm

D. Recommendation regarding the use of this material as a supplemental fuel

1. Analyst comments _____

_____

Signature _____

2. Technical representative comments _____

_____

Signature _____

3. Submitted to General Portland Inc. for approval as a qualified source

_____ Yes

_____ No

by _____
Date

E. Reviewed and accepted/rejected by GPI

_____ _____
By Date

Reasons for rejection _____

_____

_____

Robert Koss & Sons Inc.
394 GILES ROAD • GRAFTON, OHIO 44044 (216) 748-2171 • (216) 235-3050 CLEVELAND LINE

US/EPA Facility ID# OHD048415665

WASTE PRODUCT SURVEY

_____ _____

1. Generator: PPG Industries, Inc. US/EPA ID #: WID059972935

Mailing Address: POB 28, Oak Creek, WI 53154

Plant Address: 10800 South 13th Street, Oak Creek, WI 53154

Business Contact: Martin Scheerbaum/Dan Scudder Phone: (414) 764-6000

Technical Contact: Martin Scheerbaum/Dan Scudder Phone: (414) 764-6000

THIS INFORMATION IS BEING REQUIRED TO COMPLY WITH RCRA 40 CFR PART 265.13 GENERAL WASTE ANALYSIS.

II. GENERAL WASTE INFORMATION

Waste Material Name: Organic Waste

Generator Code(if used): _____

Describe process that generates waste: Paint and Resin Plant Solvent Recovery Batch Distillation

SIC Code(optional): 2851, 2821

Is this Waste "Hazardous" as defined by RCRA Part 261?
NO [YES] (circle)
If yes, list applicable EPA Hazardous Waste Number(s) belo
F003, F005

Rate of Generation: 200M-300M Gal/yr. Current Accumulation Drums: _____ Bulk: X

Specify all types of containerization for which you request quotation.
55 gallon steel drums _____; 70 gallon recovery drum _____; (with fiber or steel drums inside); 55 gallon fiber drum _____; 5 gallon pail _____; Bulk X ; Other _____
If bulk, I would like a quote for pumping charge. (circle) NO [YES]

III. WASTE STREAM CHEMICAL COMPOSITION

Components including contaminants	Concentration Range WT%	to	Average WT% Must Total 100%	TLV (if publishe +ACGIH	OSHA
Polymeric Resins (acrylic, alkyd, polyester, vinyl, amine, epoxy, polyurethane)	20	40	30		
Inorganic Pigments	7	20	10		
% Water	1	20	10		
Solvents (total)	45	60	50		
Butyl Cellosolves	5	15	9		25
Xylene	10	20	15		100
MIBK	1	10	6		100
Butanols	2	10	5		100
Toluene	1	- 3	2		200
Cellosolve Acetates	1	- 3	1.5		25
Benzene	.1	- .5	.3		10

Attach to this form any additional information which must be known to treat, store or dispose of the waste in accordance with RCRA Section 265.13, including but not limited to da developed under RCRA 261, laboratory analysis, technical publications or safety data shee

(CONTINUED ON LAST PAGE)

11/13/

IV. SPECIFIC ANALYSIS OF WASTE

ANSWER EVERY ITEM IN THIS SECTION
DO NOT LEAVE BLANKS. If the specific element is not present, indicate "none".

Organic Bound Sulfur*	None	%WT
" " Chlorine*	Trace	%WT
" " Flourine*	Trace	%WT
" " Bromine*	None	%WT
" " Iodine*	None	%WT
" " Nitrogen	<2	%WT
" "Phosphorous	None	%WT

(Base %WT on Molecular Structure)

Metals

Lead*	300 - 2000	PPM
Mercury*	3 - 10	PPM
Arsenic	<.01 - 1	PPM
Barium	10 - 1500	PPM
Cadmium	< .5 - 3	PPM
Chromium	10 - 800	PPM
Selenium	<.5 - 1	PPM
Silver	<.01 - 1	PPM

*These items are specifically required by RCRA Part 265 Subpart O

Does this waste contain PCBS? (circle)

[NO] YES If yes, give the concentration and attach supporting documentation.

_____ PPM

Does this waste contain Insecticides, Pesticides, Herbicides or Rodenticidies?

[NO] YES If yes, identify each in the space below and the concentrations.

_____ PPM

_____ PPM

V. TOXICITY

Check applicable data

_X_ Ingestion; explain Heavy Metals & Solvents
_X_ Inhalation; explain Avoid Breathing Vapors
_X_ Dermal; explain May be an Irritant
_X_ Eyes; explain Avoid Contact
____ Other; explain _____
_X_ Carcinogen(suspected or known); explain
Benzene .1 - .5%

VI. PHYSICAL PROPERTIES

Physical State @70°F (circle)

Normally [Liquid] Similar to Paint Semisolid Possibly [Sludge] Solid

Slurry Gas

Viscosity @ 70°F <1000 sus [cps]

Is material pourable/pumpable? (circle)

NO [YES]

Is waste multi-layered? NO YES Possibly

1.(top) _____ % 3. _____ %

2. _____ % 4. _____ %

Dissolved Solids N/A %WT

Suspended Solids N/A %WT
(identify and indicate % by WT)

BTU Value/lbs.* 7000 - 12000

*Specifically required by RCRA Part 265 Subpart O.

Flash Point: Normal 75 - 100°F °F

Specific Gravity: .9 - 1.1

pH: N/A

Characteristics

Color: Varies (usually brown to gray)

Odor: Solvent

Other: _____

VII. REACTIVITY

(circle) [Stable] Unstable

Handling conditions to avoid _____

_____

Chemical Incompatibility _____

_____

VIII. SHIPPING INFORMATION FOR WASTE

In accordance with the Department of Transportation 49 CFR Parts 171 through 177.

DOT Proper Shipping Name: Waste Resin Solution

DOT Hazard Class: Flammable Liquid

DOT UN or NA Number: UN1866
(Required on all shipments after June 30, 1981.)

Container Label(s): N/A
(For containers of 110 gallons or less)

Placard(s): Flammable Liquid

For assistance call Hazardous Material Transportation of the Department of Transportation.
Phone: (800)424-9158

Generators of Hazardous Waste shipments must also comply with the labeling requirements of RCRA 40 CFR Part 262.

IX. I hereby certify that I have personally examined and am familiar with the information submitted in this and all attached documents. Based on my inquiry of thos individuals immediately responsible for obtaining the information, the submitted information is true, accurate, and complete and all known and suspected hazards have been disclosed.

Christine M. Babka

Christine M. Babka / Environmental Engineer / 10/20/81
Authorized Signature — Title — Date

Coatings & Resins Division
(412) 274-4500, Ext. 337

II. WASTE STREAM CHEMICAL COMPOSITION (Continued from front page)

Components including Contaminants	Concentration Range WT%	Average WT% Must Total 100%	TLF (if published) +ACGIH	OSHA
Styrene	.05 - .15	.1		100
MEK	.05 - 3	1		200
Acetone	.05 - .3	.1		1000
Others	5 - 15	10		

C-1. Attachment D.

Water-Base Paint Waste (also Water-Reducible Paint Waste)
(D001, D007, D008, D009)

General Description:

Liquid or Liquid and Sludge

Flash Point	<100°F - >140°F
Heating Value	<1,000 - 5,000 BTU/lb
Total Resin Solids	15 - 30%
Total Pigment Solids	10 - 30%
Solvents	0 - 60%
Water	15 - 60%
Weight/Gallon	8.5 - 9 lb/gal

Description will vary depending on product.

Basis for hazardous designation:

Assumed EP Toxic characteristics based on knowledge of the product.

C-1. Attachment E.

Solvent-Base Paint Waste
(D001, D007, D008)

General Description:

Liquid or Liquid and Sludge

Flash Point	<100°F
Heating Value	8,000 - 15,000 BTU/lb
Total Resin Solids	15 - 40%
Total Pigment Solids	5 - 20%
Solvents	40 - 80%
Water	5 - 15%
Weight/Gallon	7 - 8 lb/gal

Basis for hazardous designation:

Assumed EP Toxic characteristics based on knowledge of the product. Also tested for ignitability.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238
ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042197
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0132-03 - Resin/Paint Waste ST-30

TEST	DETERMINATION	RESULTS	UNITS
S271	RCRA METALS - SOLID		
S400	Arsenic (As)	< 0.01	mg/l
S410	Barium (Ba)	30	mg/l
S420	Cadmium (Cd)	< 0.05	mg/l
S430	Chromium (Cr)	1.0	mg/l
S450	Lead (Pb)	3.9	mg/l
S460	Mercury (Hg)	0.1	mg/l
S490	Selenium (Se)	< 0.04	mg/l
S500	Silver (Ag)	< 0.01	mg/l
S950	Acid Digestion		
S010	Ammonia, distillation (N)	12	mg/l
S015	% Ash @ 550 C	0.2	%
S040	British Thermal Units	14000	BTU/lb
S064	Chlorine, Organic	0.2	%
S080	Cyanide, Total (CN)	11	mg/l
S098	Fluorine, Organic	< 0.01	%
S125	Nitrogen, Kjeldahl (N)	< 50	mg/l
S126	Nitrogen, Organic (N)	< 50	mg/l
S140	Phenolics	20	mg/l
S165	% Solids, total at 103 C	24	%
S168	Specific Weight	7.8	lb/gal
S190	Sulfur, total	< 0.05	%
S195	% Water (Karl Fisher)	9.2	%
S210	Viscosity	23	CP
S417	Beryllium(Be)	< 0.02	mg/l
S437	Chromium, Hexavalent (Cr+6)	INT	
S971	Ashing		
S980	Oxygen Bomb Preparation		

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< means detection limit

COMMENTS:

C-1-E(-2)

Reviewed and Approved by: JMC

C-1. Attachment F.

Resin Waste
(D001, D003)

General Description:

Liquid, semi-solid or solid	
Flash Point	<100°F to >140°F
Heating Value	<100 - >10,000 BTU/lb
Total Resin Solids	20 - 70%
Total Pigment Solids	<0.5%
Solvents	15 - 75%
Water	0 - 75%
Weight/Gallon	7.5 - 9 lb/gal

Description will vary depending on product.

Basis for hazardous designation:

Usually Ignitable waste. Also declared hazardous based on organics. Tested for ignitability.

Certain types resins may also be reactive when mixed with water or may spontaneously ignite. These are generated infrequently.

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Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

ATTENTION: CHRIS BABKA

REPORT DATE: 05/15/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040557
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0067-00 - Cationic Sample Waste

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	< 0.1	mg/l
M200	Lead (Pb)	0.6	mg/l
M250	Mercury (Hg)	< 0.002	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	0.28	mg/l
M141	Chromium, Hexavalent(Cr+6)	< 2	mg/l
M150	Cobalt (Co)	< 0.1	mg/l
M160	Copper (Cu)	1.8	mg/l
M190	Iron,total (Fe)	0.1	mg/l
M230	Magnesium (Mg)	0.13	mg/l
M240	Manganese (Mn)	< 0.1	mg/l
M270	Nickel (Ni)	0.3	mg/l
M310	Sodium (Na)	19	mg/l
M320	Strontium (Sr)	< 1	mg/l
M390	Zinc (Zn)	0.9	mg/l
0F01	Xylenes	4.2	mg/l
0F04	Acetone	< 4	mg/l
0F05	2-butanone	1100	mg/l
0F02	4-methyl-2-pentanone	43	mg/l
0F09	Styrene	< 2	mg/l
0M32	Butyl Cellosolve	110000	mg/l
0M48	Maleic Anhydride	< 500	mg/l
0M58	i-Butanol	11000	mg/l
0M79	Cellosolve Acetate	< 100	mg/l
0V03	Benzene	< 2	mg/l
0V06	Carbon Tetrachloride	< 2	mg/l

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C-1-F(-2)

A Halliburton Company

CLIENT ORIGINAL

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Laboratory Services Division
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Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040557
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0067-00 - Cationic Sample Waste

TEST	DETERMINATION	RESULTS	UNITS
8V22	Methylene Chloride	< 2	mg/l
8V25	Toluene	< 2	mg/l
8V30	Trichlorofluoromethane	< 2	mg/l
S015	% Ash @ 550 C	< 0.1	%
S040	British Thermal Units	WNC	
S064	Chlorine, Organic	< 0.1	%
S098	Fluorine, Organic	< 0.01	%
S165	% Solids, total at 103 C	< 0.1	%
S168	Specific Weight	8.6	lb/gal
S195	% Water (Karl Fisher)	75.1	% — recheck 78%
S210	Viscosity	10	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W032	Ammonia as N (distillation)	< 1	mg/l
W270	Cyanide, total (CN)	< 0.1	mg/l
W435	Nitrogen, Kjeldahl (N)	15	mg/l
W440	Nitrogen, Organic (N)	15	mg/l
W500	Phenolics	< 0.4	mg/l
W740	Sulfide (S)	< 1	mg/l

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COMMENTS: WNC indicates that the sample will not combust. < means detection Limit

C-1-F-(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
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LAB ANALYSIS REPORT

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ADDRESS: 260 KAPPA DRIVE
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ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042197
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0132-03 - Resin/Paint Waste ST-30

TEST	DETERMINATION	RESULTS	UNITS
S271	RCRA METALS - SOLID		
S400	Arsenic (As)	< 0.01	mg/l
S410	Barium (Ba)	30	mg/l
S420	Cadmium (Cd)	< 0.05	mg/l
S430	Chromium (Cr)	1.0	mg/l
S450	Lead (Pb)	3.9	mg/l
S460	Mercury (Hg)	0.1	mg/l
S490	Selenium (Se)	< 0.04	mg/l
S500	Silver (Ag)	< 0.01	mg/l
S950	Acid Digestion		
S010	Ammonia, distillation (N)	12	mg/l
S015	% Ash @ 550 C	0.2	%
S040	British Thermal Units	14000	BTU/lb
S064	Chlorine, Organic	0.2	%
S080	Cyanide, Total (CN)	11	mg/l
S098	Fluorine, Organic	< 0.01	%
S125	Nitrogen, Kjeldahl (N)	< 50	mg/l
S126	Nitrogen, Organic (N)	< 50	mg/l
S140	Phenolics	20	mg/l
S165	% Solids, total at 103 C	24	%
S168	Specific Weight	7.8	lb/gal
S190	Sulfur, total	< 0.05	%
S195	% Water (Karl Fisher)	9.2	%
S210	Viscosity	23	CP
S417	Beryllium(Be)	< 0.02	mg/l
S437	Chromium, Hexavalent (Cr+6)	INT	
S971	Ashing		
S980	Oxygen Bomb Preparation		

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< means detection limits

COMMENTS:

C-1-F(-4)

Reviewed and Approved by: JMC

C-1. Attachment G.

Cationic Distillate - MIBK
(F003)

General Description:

Liquid

Flash Point	<100°F
Heating Value	10,000 - 15,000 BTU/lb
Total Resin Solids	<1%
Total Pigment Solids	0
Solvents	70 - 95%
Water	5 - 30%
Weight/Gallon	7.5 - 8 lb/gal

Basis for hazardous designation:

Listed for ignitability.

C-1. Attachment H.

Paint Plant Filter Cartridges and Bags
(D007, D008, D009)

General Description:

Fiber filter cartridge, bag and/or paper straining media contaminated with paint, resins, solvent or water and pigments. An inert absorbent material or solidifying agent may also be added to remove free liquids.

Basis for hazardous designation:

Assumed EP Toxic characteristics based on knowledge of the products. Also tested for EP Toxicity and ignitability.

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Laboratory Services Division
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Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

ATTENTION: MS. C. BABKA

REPORT DATE: 05/31/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041223
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/18/85

SAMPLE IDENTIFICATION: OC-85-0077-03A - Paint Filter Bag

TEST	DETERMINATION	RESULTS	UNITS
S015	% Ash @ 550 C	5.2	%
S040	British Thermal Units	10820	BTU/lb
S120	% Moisture (As received)	30	%
S165	% Solids, total at 103 C	70	%
S170	Specific Gravity	INT	
S410	Barium (Ba)	960	mg/kg
S417	Beryllium(Be)	< 0.2	mg/kg
S430	Chromium (Cr)	700	mg/kg
S450	Lead (Pb)	3600	mg/kg
S460	Mercury (Hg)	2.7	mg/kg
S950	Acid Digestion		
S971	Ashing		

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COMMENTS: < means detection limits

C-1-H(-2)

Reviewed and Approved by: JNC

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LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

ATTENTION: MS. C. BABKA

REPORT DATE: 05/31/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041221
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0077-03-A1 - Paint Filter Bag Extract

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	0.34	mg/l
I040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
I140	Chromium (Cr)	1.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
I250	Mercury (Hg)	0.0003	mg/l
M290	Selenium (Se)	0.28	mg/l
I300	Silver (Ag)	< 0.1	mg/l
M141	Chromium, Hexavalent(Cr+6)	< 0.01	mg/l
S950	Acid Digestion		
S971	Ashing		

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ENVIRONMENTAL ENGINEERING
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COMMENTS: < means detection limit

C-1-H(-3)

Reviewed and Approved by: JMC

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Pittsburgh, PA 15275

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LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041224
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/18/85

SAMPLE IDENTIFICATION: OC-85-0077-03B - Paint Filter

TEST	DETERMINATION	RESULTS	UNITS
S015	% Ash @ 550 C	45	%
S040	British Thermal Units	6099	BTU/lb
S120	% Moisture (As received)	20	%
S165	% Solids, total at 103 C	77	%
S170	Specific Gravity	INT	
S410	Barium (Ba)	4300	mg/kg
S417	Beryllium(Be)	< 0.2	mg/kg
S430	Chromium (Cr)	170	mg/kg
S450	Lead (Pb)	280	mg/kg
S460	Mercury (Hg)	0.40	mg/kg
S950	Acid Digestion		
S971	Ashing		

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JUN 05 1985
ENVIRONMENTAL ENGINEERING
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COMMENTS: < means detection limit

C-1-H(-4)

Reviewed and Approved by: JMC

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LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041225
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/18/85

SAMPLE IDENTIFICATION: OC-85-0077-03C - Paint Filter

TEST	DETERMINATION	RESULTS	UNITS
S015	% Ash @ 550 C	23	%
S040	British Thermal Units	8673	BTU/lb
S120	% Moisture (As received)	28	%
S165	% Solids, total at 103 C	70	%
S170	Specific Gravity	INT	g/cc
S410	Barium (Ba)	120	mg/kg
S417	Beryllium(Be)	< 0.2	mg/kg
S430	Chromium (Cr)	2.0	mg/kg
S450	Lead (Pb)	< 3	mg/kg
S460	Mercury (Hg)	0.26	mg/kg
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-H(-5)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
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Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042187
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0077-03 C1 - Paint Filter Extract

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
I040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
I140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
I250	Mercury (Hg)	0.0003	mg/l
M290	Selenium (Se)	< 0.04	mg/l
I300	Silver (Ag)	< 0.1	mg/l

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& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-H(-6)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
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Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041226
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/18/85

SAMPLE IDENTIFICATION: OC-85-0077-03D - Paint ... Filter

TEST	DETERMINATION	RESULTS	UNITS
S040	British Thermal Units	4891	BTU/lb
S120	% Moisture (As received)	18	%
S170	Specific Gravity	INT	
S410	Barium (Ba)	6700	mg/kg
S417	Beryllium(Be)	< 0.2	mg/kg
S450	Lead (Pb)	220	mg/kg
S460	Mercury (Hg)	0.13	mg/kg
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-H(-7)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042186
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0077-03 D1 - Paint Filter Extract

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
I040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
I140	Chromium (Cr)	< 0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
I250	Mercury (Hg)	< 0.0002	mg/l
M290	Selenium (Se)	< 0.04	mg/l
I300	Silver (Ag)	< 0.1	mg/l

RECEIVED
JUN 06 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-H(-8)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101
ATTENTION: CHRIS BABKA

REPORT DATE: 05/31/85

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041485
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0077-03E - Paint 1 Filter

TEST	DETERMINATION	RESULTS	UNITS
S015	% Ash @ 550 C	40	%
S040	British Thermal Units	6930	BTU/lb
S120	% Moisture (As received)	19	%
S165	% Solids, total at 103 C	78	%
S170	Specific Gravity	INT	
S410	Barium (Ba)	350	mg/kg
S417	Beryllium(Be)	< 0.2	mg/kg
S430	Chromium (Cr)	8.1	mg/kg
S450	Lead (Pb)	14	mg/kg
S460	Mercury (Hg)	0.3	mg/kg
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: INT indicates sample matrix interference during sample analysis. < means detection limit

C-1-H(-9)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041222
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0077-03-E1 - Paint Filter Extract

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	0.32	mg/l
I040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
I140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
I250	Mercury (Hg)	< 0.0002	mg/l
M290	Selenium (Se)	0.25	mg/l
I300	Silver (Ag)	< 0.1	mg/l
M141	Chromium, Hexavalent(Cr+6)	0.01	mg/l
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-H(-10)

Reviewed and Approved by: JMC

E - A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 8090
Date 8/13/84
P.O. # 31459
Sample 7/18/84

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Paint Filter Waste.

pH 3.17
Flashpoint 86°F
Specific Gravity 1.16
Specific Weight 9.72 lb/gal

Total Solids 77.0%

% Ash Content 47.5%
% Volatile Solids
(by calculation) 29.5%

Metals (ppm)

Arsenic	<0.1	Lead	9.9
Barium	<1.0	Mercury	<0.01
Cadmium	0.77	Nickel	6.0
Chromium, total	18.0	Silver	<0.5
Chromium, +6	<0.1	Selenium	<0.1
Copper	14.0	Zinc	29.0
Iron	1900		

Inorganic/Reactive Components (ppm)

Cyanide	<0.03
Sulfide	<0.25
Sulfite	<1.0

Total Volatiles 23.0% (based on calculation)

% water
% oil
% solvents

C-1-H(-11)

LAB MANAGER: R E Gibson

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 8089
Date 8/13/84
P.O. # 31459
Sample 7/18/84

Dan Scudder
PPG Industries

Subject EP Toxicity test on Paint Filter Waste.

Sample Identification	Paint Filter Waste
Lab I.D. Number	7866
Units	mg/l
Arsenic	<0.1
Barium	<0.3
Cadmium	<0.1
Chromium	0.35
Lead	<0.1
Mercury	<0.01
Selenium	<0.1
Silver	<0.1
Copper	0.40
Zinc	0.7
Nickel	<0.1

C-1-H(-12)

LAB MANAGER: R-J Gibson

E-A ENVIRO-ANALYSTS, INC.
1300 S Green Bay Rd
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 2949

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Paint and Resin Filter waste

Date 7/15/82

P.O. # Scudder

Sample 7/9/82

pH	6.05
Flashpoint	98°C, 208°F
Specific Gravity	0.24
Specific Weight	2.00 lb/gal

Total Solids	75.5%
% Ash Content	21.8%
% Volatile Solids (by calculation)	53.7%

Metals (ppm)

Arsenic	<0.1	Lead	3.1
Barium	258.2	Mercury	0.86
Cadmium	4.9	Nickel	18.3
Chromium, total	290.0	Silver	<0.1
Chromium, +6	18.5	Selenium	0.2
Copper	16.2	Zinc	119.0
Iron	9,766.5		

Inorganic/Reactive Components (ppm)

Cyanide	<0.03
Sulfide	< 0.25
Sulfite	<1.0

Total Volatiles	24.5% (by calculation)
% water	-
% oil	-
% solvents	- (Aliphatic hydrocarbons)

C-1-H(-13)

LAB MANAGER R E Tallman

C-1. Attachment I.

Resin Plant Filter Cartridges and Bags

General Description:

Fiber filter cartridge, bag or paper straining media contaminated with resins. An inert absorbent material or solidifying agent may also be added to remove free liquids.

Basis for hazardous designation:

-Declared hazardous based on organics. Also tested for EP Toxicity and ignitability.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041486
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0078-03A - Resin Filter Bag

TEST	DETERMINATION	RESULTS	UNITS
S015	% Ash @ 550 C	0.2	%
S040	British Thermal Units	14640	BTU/lb
S120	% Moisture (As received)	16	%
S165	% Solids, total at 103 C	83	%
S170	Specific Gravity	INT	
S410	Barium (Ba)	290	mg/kg
S417	Beryllium(Be)	< 0.2	mg/kg
S430	Chromium (Cr)	5.0	mg/kg
S450	Lead (Pb)	15	mg/kg
S460	Mercury (Hg)	0.2	mg/kg
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: INT indicates sample matrix interference during sample analysis. < means detection limit

C-1-I(-2)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041487
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0078-03B - Resin Filter Cartridge

TEST	DETERMINATION	RESULTS	UNITS
S015	% Ash @ 550 C	< 0.1	%
S040	British Thermal Units	10490	BTU/lb
S120	% Moisture (As received)	2.3	%
S165	% Solids, total at 103 C	97	%
S170	Specific Gravity	INT	
S417	Beryllium(Be)	< 0.2	mg/kg
S430	Chromium (Cr)	3.0	mg/kg
S450	Lead (Pb)	< 3	mg/kg
S460	Mercury (Hg)	0.1	mg/kg
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: INT indicates sample matrix interference during analysis. < means detection limit

C-1-I(-3)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042185
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0078-03 B1 - Resin Filter Cartridge Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	< 0.0002	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l

RECEIVED
JUN 06 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-I(-4)

Reviewed and Approved by: JMC

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPORT

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Resin Filter Waste

Report No. 8095
Date 8/13/84
P.O. # 31459
Sample 7/18/84

pH 7.27
Flashpoint 113°F
Specific Gravity 0.5
Specific Weight 4.1 lb/gal

Total Solids 95.28%

% Ash Content 1.55%
% Volatile Solids
(by calculation) 93.73%

Metals (ppm)

Arsenic	<0.1	Lead	26.0
Barium	<1.0	Mercury	<0.01
Cadmium	2.0	Nickel	12.0
Chromium, total	8.3	Silver	<0.1
Chromium, +6	<0.1	Selenium	<0.1
Copper	<0.1	Zinc	41.0
Iron	450.0		

Inorganic/Reactive Components (ppm)

Cyanide	<0.03
Sulfide	<0.25
Sulfite	<1.0

Total Volatiles 4.72% (by calculation)

% water
% oil
% solvents

C-1-I(-5)

LAB MANAGER: R E Schlosser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPORT

To Dan Scudder
PPG Industries

Subject EP Toxicity test on
Resin Filter Waste

Report No. 7096
Date 8/13/84
P.O. # 31459
Sample 7/18/84

Sample Identification	Resin Filter Waste
Lab I.D. Number	7855
Units	mg/l
Arsenic	<0.1
Barium	<0.3
Cadmium	<0.1
Chromium	<0.1
Lead	<0.1
Mercury	<0.01
Selenium	<0.1
Silver	<0.1
Copper	0.08
Zinc	0.17
Nickel	<0.1

C-1-I(-6)

LAB MANAGER: R E Hoesser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 3103

To Dan Scudder
PPG Industries

Subject EP Toxicity Test on Resin Filters waste

Date 9/23/82

P.O. # Scudder

Sample 8/23/82

	Resin Filters mg/l
Arsenic	< 0.01
Barium	0.42
Cadmium	< 0.01
Chromium	< 0.01
Lead	15.6
Mercury	< 0.01
Selenium	< 0.01
Silver	< 0.01
Copper	< 0.01
Zinc	0.05
Nickel	< 0.01

C-1-I(-7)

LAB MANAGER: RE Schesser

E-A ENVIRO-ANALYSTS, INC.
1300 S Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3101

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Resin Filter Waste

Date 9/23/82

P.O. # Scudder

Sample 8/23/82

pH	6.58
Flashpoint	> 212°F, does not flash
Specific Gravity	0.48
Specific Weight	4.0 lb/gal

Total Solids	73.7%
% Ash Content	13.2%
% Volatile Solids (by calculation)	60.5%

Metals (ppm)

Arsenic	0.2	Lead	202.2
Barium	126.5	Mercury	< 0.01
Cadmium	1.4	Nickel	8.4
Chromium, total	< 0.1	Silver	2.7
Chromium, +6	< 0.1	Selenium	< 0.1
Copper	3.4	Zinc	6.1
Iron	74.8		

Inorganic/Reactive Components (ppm)

Cyanide	1.2
Sulfide	< 0.25
Sulfite	< 1.0

Total Volatiles 26.3% (by calculation)

% water

% oil

% solvents (aliphatic hydrocarbons)

LAB MANAGER: R E Schoessow

E-A ENVIRO-ANALYSTS, INC.
1300 S Green Bay Rd
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 2949

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Paint and Resin Filter waste

Date 7/15/82

P.O. # Scudder

Sample 7/9/82

pH	6.05
Flashpoint	98°C, 208°F
Specific Gravity	0.24
Specific Weight	2.00 lb/gal

Total Solids	75.5%
% Ash Content	21.8%
% Volatile Solids (by calculation)	53.7%

Metals (ppm)

Arsenic	<0.1	Lead	3.1
Barium	258.2	Mercury	0.86
Cadmium	4.9	Nickel	18.3
Chromium, total	290.0	Silver	<0.1
Chromium, +6	18.5	Selenium	0.2
Copper	16.2	Zinc	119.0
Iron	9,766.5		

Inorganic/Reactive Components (ppm)

Cyanide	<0.03
Sulfide	<0.25
Sulfite	<1.0

Total Volatiles	24.5% (by calculation)
% water	-
% oil	-
% solvents	- (Aliphatic hydrocarbons)

C-1-I(-9)

LAB MANAGER R. E. Fellows

C-1. Attachment J.

Paint Plant Baghouse Dust
(D007, D008, D009)

General Description:

This is a solid waste generated from air pollution dust collection systems located at several points throughout the Paint Manufacturing plant. Pigment and resin raw material particulates are drawn away from the operator by a hood at the point where these materials are charged to the production equipment.

Basis for hazardous designation:

Assumed EP Toxic characteristics based on knowledge of the waste. Also tested for EP Toxicity.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238
ATTENTION: MS. CHRIS BABKA

REPORT DATE: 07/02/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040565
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0075-03 - Paint Baghouse Dust

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	4.1	mg/kg
M040	Barium (Ba)	5800	mg/kg
M090	Cadmium (Cd)	2.6	mg/kg
M140	Chromium (Cr)	5600	mg/kg
M200	Lead (Pb)	4500	mg/kg
M250	Mercury (Hg)	2.5	mg/kg
M290	Selenium (Se)	< 0.4	mg/kg
M300	Silver (Ag)	< 1.0	mg/kg
M050	Beryllium (Be)	< 0.2	mg/kg
M110	Calcium (Ca)	16000	mg/kg
M141	Chromium, Hexavalent(Cr+6)	3800	mg/kg Rev.
M150	Cobalt (Co)	7.0	mg/kg
M160	Copper (Cu)	1500	mg/kg
M190	Iron,total (Fe)	99	mg/kg
M230	Magnesium (Mg)	2000	mg/kg
M240	Manganese (Mn)	63	mg/kg
M270	Nickel (Ni)	94	mg/kg
M310	Sodium (Na)	880	mg/kg
M320	Strontium (Sr)	5100	mg/kg
M390	Zinc (Zn)	11000	mg/kg
OM99	Infrared Analysis		
S010	Ammonia, distillation (N)	590	mg/kg
S015	% Ash @ 550 C	78	%
S064	Chlorine, Organic	< 0.1	%
S080	Cyanide, Total (CN)	< 2	mg/kg
S098	Fluorine, Organic	0.02	%
S120	% Moisture (As received)	1.5	%
S125	Nitrogen, Kjeldahl (N)	3600	mg/kg
S126	Nitrogen, Organic (N)	3000	mg/kg
S165	% Solids, total at 103 C	98.3	%
S170	Specific Gravity	INT	

RECEIVED JUL - 8 1985 ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

C-1-J(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040565
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0075-03 - Paint Baghouse Dust

TEST	DETERMINATION	RESULTS	UNITS
S174	Sulfide by N2 generation (S)	< 5	mg/kg
S190	Sulfur, total	0.60	%
S950	Acid Digestion		
S955	Water Digestion		
S980	Oxygen Bomb Preparation		
W490	pH	7.2	

RECEIVED MAY 16 1985 ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

COMMENTS: No resins were detected by the infrared analysis. < means detection limit

C-1-J(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101
ATTENTION: MS. C. BABKA

REPORT DATE: 05/31/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041219
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0075-03A - Paint Baghouse Dust Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.36	mg/l
M040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	0.11	mg/l
M140	Chromium (Cr)	92	mg/l
M200	Lead (Pb)	0.8	mg/l
M250	Mercury (Hg)	0.035	mg/l
M290	Selenium (Se)	0.28	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-J(-4)

Reviewed and Approved by: JMC

E - A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPOR

Report No. 8093
Date 8/13/84
P.O. # 31459
Sample 7/18/84

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Paint Plant Dust Wastes.

---

pH 7.13
Flashpoint 212°F, does not flash
Specific Gravity 0.39
Specific Weight 3.25 lbs/gal

Total Solids 81.23%

% Ash Content 72.07%
% Volatile Solids 9.16%
(by calculation)

Metals (ppm)

Arsenic	<0.1	Lead	3.2
Barium	<1.0	Mercury	0.39
Cadmium	2.7	Nickel	18.6
Chromium, total	876.0	Silver	0.8
Chromium, +6	<0.1	Selenium	<0.1
Copper	975.0	Zinc	683.0
Iron	12,600		

Inorganic/Reactive Components (ppm)

Cyanide <0.03
Sulfide <0.25
Sulfite <1.0

Total Volatiles 18.77% (by calculation)

% water
% oil
% solvents

C-1-J(-5)

LAB MANAGER: R E Schlosser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Road
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 8094

To Dan Scudder
PPG Industries

Subject EP Toxicity test on
Paint Plant Dust Waste.

Date 8/13/84

P.O. # 31459

Sample 7/18/84

Sample Identification	Paint Plant Dust
Lab I.D. Number	7847
Units	mg/l
Arsenic	<0.1
Barium	<0.3
Cadmium	<0.1
Chromium	160.0
Lead	0.19
Mercury	0.021
Selenium	<0.1
Silver	<0.1
Copper	32.0
Zinc	53.0
Nickel	0.21

Note: EP Toxicity for Chromium

C-1-J(-6)

LAB MANAGER: R E Gibbons

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 3211

To Dan Scudder
PPG

Subject EP Toxicity Test on Paint Dust Composite

Date 11/5/82

P.O. # Scudder

Sample 8/30/82

	8/30 mg/l
Arsenic	< 0.01
Barium	1.50
Cadmium	0.32
Chromium	8.60
Lead	< 0.01
Mercury	0.012
Selenium	< 0.01
Silver	< 0.01
Copper	0.06
Zinc	3.82
Nickel	0.15

EP Toxic for Chromium

C-1-J(-7)

LAB MANAGER: R E Schlosser

E-A ENVIRO-ANALYSTS, INC.
1300 S Green Bay Rd
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3022

To Dan Scudder
PPG Industries

Subject Chemical and Physical Characterization of Paint Powder Waste composite

Date 8/19/82

P.O. # Scudder

Sample 6/23/82

pH	6.72
Flashpoint	>212°F, does not flash
Specific Gravity	0.33
Specific Weight	2.8 lb/gal

Total Solids	98.3%
% Ash Content	80.4%
% Volatile Solids (by calculation)	17.9%

Metals (ppm)

Arsenic	0.2	Lead	135.0
Barium	150.0	Mercury	<0.01
Cadmium	9.3	Nickel	110.1
Chromium, total	760.0	Silver	12.4
Chromium, +6	2.3	Selenium	<0.1
Copper	186.1	Zinc	583.2
Iron	11,323.1		

Inorganic/Reactive Components (ppm)

Cyanide	<0.03
Sulfide	<0.25
Sulfite	<0.25

Total Volatiles	1.7% (by calculation)
% water	-
% oil	-
% solvents	-

C-1-J(-8)

LAB MANAGER R E Schlosser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3023

To Dan Scudder
PPG Industries

Subject EP Toxicity Test Results of Paint Powder composite

Date 8/17/82

P.O. # Scudder

Sample 6/23/82

	Paint Powder mg/l
Arsenic	< 0.01
Barium	0.85
Cadmium	0.10
Chromium	1.70
Lead	0.12
Mercury	< 0.01
Selenium	< 0.01
Silver	< 0.01
Copper	0.25
Zinc	0.95
Nicke;	0.80

C-1-J(-9)

LAB MANAGER: R E Schlosser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3021

To Dan Scudder
PPG Industries

Subject EP Toxicity Test: U.V. Paint Powder and Dust

Date 7/23/82

P.O. # Scudder

Sample 6/23/82

	U.V. Paint Powder mg/l
Arsenic	<0.01
Barium	0.47
Cadmium	<0.01
Chromium	0.10
Lead	<0.01
Mercury	< 0.0001
Selenium	< 0.01
Silver	0.75
Copper	<0.01
Zinc	0.11
Nickel	0.09

C-1-J(-10)

LAB MANAGER: R E Schroeder

PPG INDUSTRIES PAINT DUST COLLECTION WASTE

P.O. #24645 $250.00

SPECIAL WASTE ANALYSIS REPORT

SALES	CODE
CWD	A64307 N

WASTE PROFILE SHEET CODE

LABORATORY: CONTROLLED WASTE DIVISION

PROFILE SHEET RECEIVED ON: 9/13/82 REPRESENTATIVE SAMPLE RECEIVED ON: 9/13/82

CERTIFICATE OF REP. SAMPLE RECEIVED: 9/13/82 SAMPLE TAKEN: 6/23/82

PROPOSED TREATMENT/DISPOSAL FACILITY:

THE ANALYSES BELOW REPORTED WERE SELECTED BY ME, BASED UPON THE GENERATOR'S REPRESENTATIONS IN THE PROFILE SHEET AND ANY APPLICABLE WASTE ANALYSIS PLAN ESTABLISHED BY THE PROPOSED FACILITY FOR WASTE OF THIS TYPE. ANALYSES REQUIRED BY A WASTE ANALYSIS PLAN ARE INDICATED BY AN ASTERISK (*).

DATE OF ANALYSIS: 10/8/82 LAB MANAGER: [signature]

Test	As Received	Leachate	Analyst Initials
Specific Gravity	0.263		[illegible]
pH 1% aqueous	2.53		[illegible]
Acidity, % as			
Alkalinity, % as			
C.O.D., mg/l			
B.O.D., mg/l			
Total Solids @ 105°C	98.27%		[illegible]
Total Dissolved Solids, mg/l			
Total Suspended Solids, mg/l			
Residue on Evaporation @ 180°C			
Flash Point, F°	[illegible]		[illegible]
Ash Content, on ignition			
Heating Valve, BTU/lb			
"Acid Scrub," gNaOH/g			
Arsenic, as AS, mg/l	0.12		
Barium, as Ba, mg/l	<0.078		[illegible]
Boron, as Bi, mg/l			
Cadmium, as Cd, mg/l	<0.078		[illegible]
Chromium, Total as Cr, mg/l			
Hexavalent Chromium @ Cr, mg/l	2811.28		[illegible]
Copper, as Cu, mg/l	759.59		[illegible]
Iron, Total as Fe, mg/l			
Iron, dissolved, as Fe, mg/l			
Lead, as Pb, mg/l	3429.91		[illegible]
Manganese, as Mn, mg/l			
Magnesium, as Mg, mg/l			
Mercury, as Hg, mg/l	0.54		
Nickel, as Ni, mg/l	<0.078		[illegible]
Selenium, as Se, mg/l	<0.078		[illegible]
Silver, as Ag, mg/l	<0.078		[illegible]
Zinc, as Zn, mg/l	4659.36		[illegible]
Bicarbonates, as HCO_3, mg/l			
Carbonates, as CO_3, mg/l			
Chlorides, as Cl, mg/l			
Fluorides, as F, mg/l			
Nitrate, as NO_3, mg/l			
Nitrite, as NO_2, mg/l			
Phosphate, as P, mg/l			
Sulfate, as SO_4, mg/l			
Sulfides, as S, mg/l	[illegible]		[illegible]

Test	As Received	Leachate	Analyst Initials
Phenols, mg/l	25		
Cyanides, as CN, Total, mg/l			
Cyanides, as CN, Free, mg/l	<50.0		[illegible]
Nitrogen, Ammonia, as N, mg/l			
Nitrogen, Organic, as N, mg/l			
Total Kjeldahl Nitrogen, as N, mg/l			
Total Alkalinity (P), as $CaCO_3$, mg/l			
Total Alkalinity (M), as $CaCO_3$, mg/l			
Total Hardness, as $CaCO_3$, mg/l			
Calcium Hardness, as $CaCO_3$, mg/l			
Magnesium Hardness, as $CaCO_3$, mg/l			
Oil and Grease, mg/l			
Aldrin, mg/l			
Chlordane, mg/l			
DDT's, mg/l			
Dieldrin, mg/l			
Endrin, mg/l			
Heptachlor, mg/l			
Lindane, mg/l			
Methoxychlor, mg/l			
Toxaphene, mg/l			
Parathion, mg/l			
2,4-D, mg/l			
2,4,5,TP (Silvex), mg/l			
PCB's, mg/l			
Layered			
Physical State			
Color			[illegible]
Odor			

THIS REPORT HAS BEEN PREPARED FOR THE EXCLUSIVE USE AND BENEFIT OF WASTE MANAGEMENT OF [illegible] WASTE DIVISION. NO REPRESENTATION, CONCERNING SAMPLE VALIDITY OR ANALYTICAL ACCURACY OR COMPLETENESS IS HEREBY MADE TO ANY OTHER PERSON RECEIVING THIS REPORT.

© 1980 WASTE MANAGEMENT, INC.

PENN ENVIRONMENTAL CONSULTANTS, INC.
FORT PITT PROFESSIONAL BUILDING
1517 WOODRUFF STREET
PITTSBURGH, PA. 15220
412-381-1133

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 151 COLFAX STREET
SPRINGDALE, PA 15144

PEC PROJECT NO: 0165-00
PEC JOB NUMBER: 0371
PEC SAMPLE NO: 59450

REPORT DATE: 10.06.80

ATTENTION: MR. JIM DIXON

DATE RECEIVED: 09.19.80

SAMPLE IDENTIFICATION: O.C. TRADE DUST EXTRACT 8-14

PARAMETER	SYMBOL	RESULTS	UNITS
BARIUM	BA	4.1	MG/L
CADMIUM	CD	0.12	MG/L
CHROMIUM	CR	9.7	MG/L
LEAD	PB	0.12	MG/L
MERCURY (COLD VAPOR METHOD)	HG CV	< 10	UG/L
SILVER	AG	< .01	MG/L
ARSENIC	AS(LOW)	0.004	MG/L
SELENIUM	SE(LOW)	< .002	MG/L

COMMENTS: < means detection limit

Reviewed and Approved by:

cc: MS. CHRIS BABKA

cc Waste Analysis 1D

Rexnord

LABORATORY REPORT

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

TO: Mr. Howard Timian
PPG Industries Inc.
10800 13th Street
Oak Creek, WI 53154

cc CHRIS BABKA
~~L.N. STREFF~~

Date: 6/26/80

Purchase Order No.: Rexnord Work Order No.: FG 41232

Sample Analysis on Baghouse Dust Sample submitted on 4/22/80.

Parameter	Results
Moisture Content	0.68%
Oil & Grease	1,496 mg/kg
Cyanide (Total)	18.9 mg/kg
Cyanide (Free)	<0.8 mg/kg
Sulfide	160 mg/kg
Arsenic	1.8 mg/kg
Barium	5,100 mg/kg
Cadmium	1.4 mg/kg
Chromium	20,300 mg/kg
Copper	16 mg/kg
Mercury	17.4 mg/kg
Nickel	16 mg/kg
Lead	47,500 mg/kg
Selenium	22 mg/kg
Silver	1.8 mg/kg

RECEIVED
JUN 30 1980

Due to the dry nature of the sample, moisture content was substituted for solids, pH and flash point analysis.

Thank you for your order.

C-1-J(-13)

Steve Galanski
Signature

C-1. Attachment K.

Resin Plant Baghouse Dust

General Description:

This is a solid waste generated from an air pollution dust collection system located at the Resin Manufacturing Plant. Raw material particulates are drawn away from the operator by a hood at the point where these materials are charged to the production equipment. This waste is presently reused directly as a raw material but is identified here as a waste in the event that it cannot be reused in the future. It had been discarded in the past.

Basis for hazardous designation:

Declared hazardous based on organics. Also tested for EP Toxicity.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BARKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040564
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0074-03 - Resin Baghouse Dust

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	3.8	mg/kg
M040	Barium (Ba)	1900	mg/kg
M090	Cadmium (Cd)	49	mg/kg
M140	Chromium (Cr)	210	mg/kg
M200	Lead (Pb)	510	mg/kg
M250	Mercury (Hg)	3.4	mg/kg
M290	Selenium (Se)	< 0.4	mg/kg
M300	Silver (Ag)	1.0	mg/kg
M050	Beryllium (Be)	< 0.2	mg/kg
M110	Calcium (Ca)	7500	mg/kg
M141	Chromium, Hexavalent(Cr+6)	< 10	mg/kg
M150	Cobalt (Co)	9.0	mg/kg
M160	Copper (Cu)	12	mg/kg
M190	Iron,total (Fe)	7800	mg/kg
M230	Magnesium (Mg)	9100	mg/kg
M240	Manganese (Mn)	210	mg/kg
M270	Nickel (Ni)	38	mg/kg
M310	Sodium (Na)	1100	mg/kg
M320	Strontium (Sr)	100	mg/kg
M390	Zinc (Zn)	8000	mg/kg
OM99	Infrared Analysis		
S010	Ammonia, distillation (N)	1500	mg/kg
S015	% Ash @ 550 C	82	%
S040	British Thermal Units	2500	BTU/lb
S064	Chlorine, Organic	1.5	%
S080	Cyanide, Total (CN)	< 2	mg/kg
S098	Fluorine, Organic	0.01	%
S120	% Moisture (As received)	1.9	%
S125	Nitrogen, Kjeldahl (N)	3300	mg/kg
S126	Nitrogen, Organic (N)	1800	mg/kg
S140	Phenolics	180	mg/kg

RECEIVED
MAY 16 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

C-1-K(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205
412-788-1080

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040564
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0074-03 - Resin Baghouse Dust

TEST	DETERMINATION	RESULTS	UNITS
S165	% Solids, total at 103 C	98.0	%
S170	Specific Gravity	INT	
S174	Sulfide by N2 generation (S)	< 5	mg/kg
S950	Acid Digestion		
S955	Water Digestion		
S980	Oxygen Bomb Preparation		
S490	pH	7.1	

RECEIVED
MAY 16 1985
ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

COMMENTS: No resins were detected by the infrared analysis. < means detection limit

C-1-K(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041218
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0074-03A - Resin Dust Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.36	mg/l
M040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	0.05	mg/l
M140	Chromium (Cr)	1.8	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.0006	mg/l
M290	Selenium (Se)	0.27	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-K(-4)

Reviewed and Approved by: JMC

LABORATORY REPORT

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

Report No. 3210

To Dan Scudder
PPG

Subject EP Toxicity Test on Resin Dust

Date 11/5/82

P.O. # Scudder

Sample October, 1982

	mg/l
Arsenic	<0.01
Barium	< 0.01
Cadmium	< 0.01
Chromium	0.20
Lead	<0.01
Mercury	<0.01
Selenium	<0.01
Silver	< 0.01
Copper	0.04
Zinc	0.84
Nickel	< 0.01

Not Hazardous by EP Toxicity

C-1-K(-5)

LAB MANAGER: R E Clausen

PPG INDUSTRIES WASTE RESIN POWDER
P.O.#24645 $250.00

SPECIAL WASTE ANALYSIS REPORT

SALES	CODE
CWD	A64306

WASTE PROFILE SHEET CODE

LABORATORY: CONTROLLED WASTE DIVISION

PROFILE SHEET RECEIVED ON: 9/13/82 REPRESENTATIVE SAMPLE RECEIVED ON: 9/13/82

CERTIFICATE OF REP. SAMPLE RECEIVED: 9/13/82 SAMPLE TAKEN: 8/4/82

PROPOSED TREATMENT/DISPOSAL FACILITY:

THE ANALYSES BELOW REPORTED WERE SELECTED BY ME, BASED UPON THE GENERATOR'S REPRESENTATIONS IN THE PROFILE SHEET AND ANY APPLICABLE WASTE ANALYSIS PLAN ESTABLISHED BY THE PROPOSED FACILITY FOR WASTE OF THIS TYPE. ANALYSES REQUIRED BY A WASTE ANALYSIS PLAN ARE INDICATED BY AN ASTERISK (*).

DATE OF ANALYSIS: 10/5/82 LAB MANAGER:

Test	As Received	Leachate	Analyst Initials	Test	As Received	Leachate	Analyst Initials
Specific Gravity	0.45						
pH 1% aqueous	3.74						
Acidity, % as							
Alkalinity, % as				Phenols, mg/l	1500		
C.O.D., mg/l				Cyanides, as CN, Total, mg/l			
B.O.D., mg/l				Cyanides, as CN, Free, mg/l	<50.0		
Total Solids @ 105°C	98.245						
Total Dissolved Solids, mg/l				Nitrogen, Ammonia, as N, mg/l			
Total Suspended Solids, mg/l				Nitrogen, Organic, as N, mg/l			
Residue on Evaporation @ 150°C				Total Kjeldahl Nitrogen, as N, mg/l			
Flash Point, F°	[illegible]	>200		Total Alkalinity (P), as $CaCO_3$, mg/l			
Ash Content, on ignition				Total Alkalinity (M), as $CaCO_3$, mg/l			
Heating Value, BTU/lb				Total Hardness, as $CaCO_3$, mg/l			
"Acid Scrub," gNaOH/g				Calcium Hardness, as $CaCO_3$, mg/l			
				Magnesium Hardness, as $CaCO_3$, mg/l			
Arsenic, as AS, mg/l	0.016						
Barium, as Ba, mg/l	<0.066						
Boron, as Bi, mg/l				Oil and Grease, mg/l			
Cadmium, as Cd, mg/l	<0.066						
Chromium, Total as Cr, mg/l							
Hexavalent Chromium @ Cr, mg/l	<0.066			Aldrin, mg/l			
Copper, as Cu, mg/l	<0.066			Chlordane, mg/l			
Iron, Total as Fe, mg/l				DDT's, mg/l			
Iron, dissolved, as Fe, mg/l				Dieldrin, mg/l			
Lead, as Pb, mg/l	<0.066			Endrin, mg/l			
Manganese, as Mn, mg/l				Heptachlor, mg/l			
Magnesium, as Mg, mg/l				Lindane, mg/l			
Mercury, as Hg, mg/l	<0.002			Methoxychlor, mg/l			
Nickel, as Ni, mg/l	<0.066			Toxaphene, mg/l			
Selenium, as Se, mg/l	<0.066			Parathion, mg/l			
Silver, as Ag, mg/l	<0.066			2,4,D, mg/l			
Zinc, as Zn, mg/l	25.59			2,4,5,TP (Silvex), mg/l			
				PCB's, mg/l			
Bicarbonates, as HCO_3, mg/l				Layered			
Carbonates, as CO_3, mg/l							
Chlorides, as Cl, mg/l				Physical State	[illegible]		
Fluorides, as F, mg/l							
Nitrates, as NO_3, mg/l				Color			
Nitrites, as NO_2, mg/l							
Phosphates, as P, mg/l				Odor			
Sulfates, as SO_4, mg/l							
Sulfides, as S, mg/l							

THIS REPORT HAS BEEN PREPARED FOR THE EXCLUSIVE USE AND BENEFIT OF WASTE MANAGEMENT OF WISCONSIN, CONTROLLED WASTE DIVISION NO REPRESENTATION OR WARRANTY OF SAMPLE VALIDITY OR ANALYTICAL ACCURACY OR COMPLETENESS IS HEREBY MADE TO ANY OTHER PERSON RECEIVING THIS REPORT.

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT

Report No. 3212

To Dan Scudder
PPG

Subject EP Toxicity Test on Resin Dust

Date 11/5/82

P.O. # Scudder

Sample 8/30/82

	8/30 mg/l
Arsenic	< 0.01
Barium	< 0.01
Cadmium	< 0.01
Chromium	< 0.01
Lead	2.00
Mercury	< 0.01
Selenium	< 0.01
Silver	< 0.01
Copper	< 0.01
Zinc	0.04
Nickel	< 0.01

Not Hazardous by EP toxicity

C-1-K(-7)

LAB MANAGER: R E Schoesser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3020

To Dan Scudder
PPG

Subject EP Toxicity Test: Resin Dust composite

Date 8/19/82

P.O. # Scudder

Sample 8/4/82

	Resin Dust mg/l
Arsenic	<0.01
Barium	0.17
Cadmium	<0.01
Chromium	<0.01
Lead	39.00
Mercury	0.017
Selenium	<0.01
Silver	<0.01
Copper	0.13
Zinc	0.68
Nickel	0.01

C-1-K(-8)

LAB MANAGER: R E Schoessow

E-A ENVIRO-ANALYSTS, INC.
1300 S Green Bay Rd
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3018

To Dan Scudder
PPG

Subject Chemical and Physical Characterization of Resin Dust Composite sample

Date 8/18/82

P.O. # Scudder

Sample 6/21/82

pH	3.22
Flashpoint	>212°F, does not flash
Specific Gravity	0.56
Specific Weight	4.7 lb/gal

Total Solids	98.9%
% Ash Content	14.3%
% Volatile Solids (by calculation)	84.6%

Metals (ppm)

Arsenic	0.6	Lead	1228.5
Barium	7.5	Mercury	0.06
Cadmium	1.2	Nickel	12.2
Chromium, total	<0.1	Silver	3.7
Chromium, +6	<0.1	Selenium	<0.1
Copper	2.4	Zinc	9.8
Iron	268.1		

Inorganic/Reactive Components (ppm)

Cyanide	<0.03 mg/kg
Sulfide	<1.0 mg/kg
Sulfite	<1.0 mg/kg

Total Volatiles	1.1% (by calculation)
% water	-
% oil	-
% solvents	-

C-1-K(-9)

LAB MANAGER R E Schlosser

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3019

To Dan Scudder
PPG

Subject EP Toxicity Test: Resin Dust composite

Date 8/19/82

P.O. # Scudder

Sample 6/21/82

	Resin Dust mg/l
Arsenic	<0.01
Barium	0.17
Cadmium	0.04
Chromium	0.05
Lead	5.16
Mercury	0.017
Selenium	<0.01
Silver	<0.01
Copper	0.28
Zinc	0.76
Nickel	<0.01

C-1-K(-10)

LAB MANAGER: R E Schloesser

C-1. Attachment L.

Paint Plant Trade Washwater
(D009)

General Description:

Liquid

Flash Point	>140°F
Heating Value	<1,000 BTU/LB
Total Resin Solids	1 - 5%
Total Pigment Solids	1 - 5%
Solvents	Negligible
Water	95 - 99%
Weight/Gallon	8.3 - 8.5 lb/gal

Basis for hazardous designation:

Assumed EP Toxic characteristic based on knowledge of the product. Also tested for EP Toxicity and ignitability.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

REPORT DATE: 06/04/85

ATTENTION: MS. CHRIS BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042200
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0130-03 - Trade Washwater Holding Tank

TEST	DETERMINATION	RESULTS	UNITS
BM48	Maleic Anhydride	6800	mg/l
OV25	Toluene	50	mg/l
BV30	Trichlorofluoromethane	< 2	mg/l
OV46	Carbon Tetrachloride	< 2	mg/l
BV62	Methylene Chloride	67	mg/l
S271	RCRA METALS - SOLID		
S400	Arsenic (As)	0.20	mg/l
S410	Barium (Ba)	< 1	mg/l
S420	Cadmium (Cd)	0.07	mg/l
S430	Chromium (Cr)	< 0.1	mg/l
S450	Lead (Pb)	< 0.3	mg/l
S460	Mercury (Hg)	- 2.3	mg/l
S490	Selenium (Se)	< 0.04	mg/l
S500	Silver (Ag)	< 0.01	mg/l
S950	Acid Digestion		
S010	Ammonia, distillation (N)	22	mg/l
S015	% Ash @ 550 C	0.6	%
S065	COD (02)	32000	mg/l
S080	Cyanide, Total (CN)	< 0.1	mg/l
S140	Phenolics	1.7	mg/l
S168	Specific Weight	8.6	lb/gal
S195	% Water (Karl Fisher)	91	%
S437	Chromium, Hexavalent (Cr+6)	< 400	mg/l
S440	Copper (Cu)	0.3	mg/l
S510	Zinc (Zn)	61	mg/l
S525	Iron (Fe)	160	mg/l
S971	Ashing		
W022	Alkalinity, Total (CaCO3)	450	mg/l
W590	Solids, dissolved at 180 C	10500	mg/l
W610	Solids, suspended at 103 C	4400	mg/l

COMMENTS:

C-1-L(-2)

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CLIENT ORIGINAL

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042188
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0130-03A - Trade Washwater Holding Tank Extract

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
I040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
I140	Chromium (Cr)	< 0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
I250	Mercury (Hg)	0.033	mg/l
M290	Selenium (Se)	< 0.04	mg/l
I300	Silver (Ag)	< 0.1	mg/l

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& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-L(-3)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85-0130-00 LOCATION: OAK CREEK

DATE REC'D: 4-16-85 DATE SAMPLED: _____

ANALYSIS	DATE	RESULTS
T.E.P.	4-23-85	SOLIDS 110ppm INIT. DiH_2O 1760ml FINAL DiH_2O 429ml
	used	ACID SOLN. 11ml INIT. pH 8.1 FINAL pH 4.9
F.PT.	5-9-85	~~100~~ 106°F
% SOLIDS		_____
C.O.D.		_____ mg/l

OTHER:

pH 5-9-85 6.7

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ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)

ASTM D-93-77 (FLASH POINT)

HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

NAME: James Robinson DATE: 5-13-85

C-1. Attachment M.

Paint Plant Industrial Washwater
(D001, D007, D008, D009)

General Description:

Liquid

Flash Point	<140° - >200°F
Heating Value	<1,000 BTU/lb
Total Resin Solids	0.5 - 2%
Total Pigment Solids	1 - 5%
Solvents	1 - 10%
Water	85 - 98%
Weight/Gallon	8.3 - 8.5 lb/gal

Basis for hazardous designation:

Assumed EP Toxic characteristic based on knowledge of the waste. Also tested for EP Toxicity and ignitability.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

ATTENTION: CHRIS BABKA

REPORT DATE: 05/15/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040562
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0072-03 - Paint Production Washwater

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.14	mg/l
M040	Barium (Ba)	3	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	46	mg/l
M200	Lead (Pb)	7.2	mg/l
M250	Mercury (Hg)	0.74	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	64	mg/l
M141	Chromium, Hexavalent(Cr+6)	45	mg/l
M150	Cobalt (Co)	0.5	mg/l
M160	Copper (Cu)	1.3	mg/l
M190	Iron,total (Fe)	110	mg/l
M230	Magnesium (Mg)	7.5	mg/l
M240	Manganese (Mn)	4.5	mg/l
M270	Nickel (Ni)	0.4	mg/l
M310	Sodium (Na)	4600	mg/l
M320	Strontium (Sr)	2	mg/l
M390	Zinc (Zn)	8.9	mg/l
0F01	Xylenes	< 200	mg/l
0F05	2-butanone	< 400	mg/l
0F08	4-methyl-2-pentanone	540	mg/l
0M32	Butyl Cellosolve	520	mg/l
0M48	Maleic Anhydride	< 500	mg/l
0M58	i-Butanol	1100	mg/l
0M79	Cellosolve Acetate	< 100	mg/l
0V06	Carbon Tetrachloride	< 200	mg/l
0V22	Methylene Chloride	710	mg/l
0V25	Toluene	< 200	mg/l
0V30	Trichlorofluoromethane	< 200	mg/l

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C-1-M(-2)

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CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040562
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0072-03 - Paint Production Washwater

TEST	DETERMINATION	RESULTS	UNITS
S040	British Thermal Units	WNC	
S064	Chlorine, Organic	< 0.1	%
S080	Cyanide, Total (CN)	< 0.1	mg/l
S098	Fluorine, Organic	< 0.01	%
S168	Specific Weight	8.5	lb/gal
S195	% Water (Karl Fisher)	90.2	%
S210	Viscosity	10	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W022	Alkalinity, Total (CaCO3)	8100	mg/l
W032	Ammonia as N (distillation)	28	mg/l
W050	BOD, 5-day (O2)	8200	mg/l
W120	COD (O2)	22000	mg/l
W435	Nitrogen, Kjeldahl (N)	< 50	mg/l
W440	Nitrogen, Organic (N)	< 50	mg/l
W500	Phenolics	5.8	mg/l
W590	Solids, dissolved at 180 C	18500	mg/l
W610	Solids, suspended at 103 C	3440	mg/l
W625	Solids, vol total at 550 C	6440	mg/l
W740	Sulfide (S)	< 4	mg/l

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ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

COMMENTS: WNC indicates that the sample will not combust. < means detection limit

C-1-M(-3)

Reviewed and Approved by: JMC

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CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
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412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041483
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0072-03A - Paint Production Washwater Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.26	mg/l
M040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	2.2	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.0084	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

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ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-M(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85-0072-00 LOCATION: OAK CREEK

DATE REC'D: 3-8-85 DATE SAMPLED: 12-19-85

ANALYSIS	DATE	RESULTS					
T.E.P.	4-10-85	SOLIDS	110 gm	INIT. DiH_2O	1760 ml	FINAL DiH_2O	376 ml
	used	ACID SOLN.	65 ml	INIT. pH	11.4	FINAL pH	5.0
F.PT.			>200°F				
% SOLIDS			____				
C.O.D.			____ mg/l				
OTHER:							
pH	4-18-85		12.5				

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PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-77 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

James Robinson DATE: 5-13-85

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042199
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0129-03 - Industrial Washwater

TEST	DETERMINATION	RESULTS	UNITS
BN48	Maleic Anhydride	5700	mg/l
OV21	Methyl Chloride	< 20	mg/l
BV25	Toluene	1300	mg/l
OV30	Trichlorofluoromethane	< 20	mg/l
BV46	Carbon Tetrachloride	< 20	mg/l
S271	RCRA METALS - SOLID		
S400	Arsenic (As)	0.44	mg/l
S410	Barium (Ba)	22	mg/l
S420	Cadmium (Cd)	< 0.05	mg/l
S430	Chromium (Cr)	190	mg/l
S450	Lead (Pb)	8.2	mg/l
S460	Mercury (Hg)	1.7	mg/l
S490	Selenium (Se)	< 0.04	mg/l
S500	Silver (Ag)	< 0.01	mg/l
S950	Acid Digestion		
S010	Ammonia, distillation (N)	100	mg/l
S015	% Ash @ 550 C	1.0	%
S065	COD (O2)	140000	mg/l
S080	Cyanide, Total (CN)	< 0.1	mg/l
S125	Nitrogen, Kjeldahl (N)	2000	mg/l
S126	Nitrogen, Organic (N)	1900	mg/l
S140	Phenolics	2.8	mg/l
S168	Specific Weight	8.5	lb/gal
S195	% Water (Karl Fisher)	85	%
S210	Viscosity	11.0	CP
S437	Chromium, Hexavalent (Cr+6)	< 400	mg/l
S440	Copper (Cu)	0.2	mg/l
S510	Zinc (Zn)	240	mg/l
S525	Iron (Fe)	76	mg/l
S971	Ashing		
W022	Alkalinity, Total (CaCO3)	2100	mg/l
W590	Solids, dissolved at 180 C	19000	mg/l

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C-1-M(-6)

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Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/04/85

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15042199
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/26/85

SAMPLE IDENTIFICATION: OC-85-0129-03 - Industrial Washwater

TEST	DETERMINATION	RESULTS	UNITS
1610	Solids, suspended at 103 C	4740	mg/l

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ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-M(-7)

Reviewed and Approved by: JMC

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CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
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Pittsburgh, PA 15275

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LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238
ATTENTION: MS. CHRIS BABKA

REPORT DATE: 06/12/85

NUS CLIENT NO: 320246
NUS SAMPLE NO: 15050280
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 05/03/85

SAMPLE IDENTIFICATION: OC-85-0129-03-A - Holding Tank #1148
Industrial Wastewater Extract

TEST	DETERMINATION	RESULTS	UNITS
I270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
I040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
I140	Chromium (Cr)	4.9	mg/l
M200	Lead (Pb)	< 0.3	mg/l
I250	Mercury (Hg)	0.031	mg/l
M290	Selenium (Se)	< 0.04	mg/l
I300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

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ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-M(-8)

Reviewed and Approved by: JMC

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

DATE: 5/26/81

PURCHASE ORDER NO.: 19291 REXNORD WORK ORDER NO.: FG 41427

Analysis of Aqueous Waste Stream from Waste Treatment Center.

WASHWATER

Sample Identification	Parameter						
	Lead	Titanium	Chromium	Zinc	Mercury	pH	TOC
816 - 014 Before Treatment (washwater)	76	6	51	52	0.600	10.9	4400
816 - 014 Decant Top	1.8	4	11	0.22	0.036	10.9	2000
816 - 014 After Treatment (Sludge)	68	<0.5	47	43	2.560	10.8	5000
816 - 014 Decant Bottom	1.2	2.5	7.2	0.17	0.112	9.2	2700
817 - 025 Before Treatment (washwater)	40	5	24	41	4.300	11.3	6400
817 - 025 Decant Top	1.7	<0.5	12	0.22	0.162	11.3	4500
817 - 025 After Treatment (Sludge)	57	6.5	27	58	2.440	11.3	6000
817 - 025 Decant Bottom	1.8	<0.5	8.7	0.33	0.085	9.6	8300

(continued page 2)

Thank you for your order.

C-1-M(-9)

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JUN 01 1981
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& CONTROL DEPARTMENT

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

DATE: 5/26/81

PURCHASE ORDER NO.: 19291 REXNORD WORK ORDER NO.: FG 41427

Parameter

Sample Identification	Lead	Titanium	Chromium	Zinc	Mercury	pH	TOC
816 - 815 Before Treatment (washwater)	16	2	3.55	27	1.220	9.9	2400
816 - 815 Decant Top	8.4	0.5	2.16	1.5	0.077	9.8	1700
815 - 815 After Treatment Sludge	21	2.5	5.1	23	1.460	9.8	2200
816 - 815 Decant Treatment	5.4	<0.5	1.79	2.7	0.140	9.5	1800

All results in mg/ℓ except pH. Samples submitted on 5/6/81.

Thank you for your order.

C-1-M(-10)

Steve Galewski

C-1. Attachment N.

Paint Plant Caustic Cleaning Water
(D001, D002, D007, D008, D009)

General Description:

Liquid

Flash Point	<140°F
Heating Value	<1,000 BTU/lb
Total Resin Solids	1 - 5%
Total Pigment Solids	15 - 25%
Solvents	1 - 5%
Water	75 - 80%
Weight/Gallon	8.5 - 9 lb/gal

Basis for hazardous designation:

Assumed EP Toxic, ignitable and corrosive characteristics based on knowledge of similar wastes generated at other PPG facilities.

C-1. Attachment O.

Resin Plant Caustic Cleaning Water
(D001, D002)

General Description:

Liquid

Flash Point	<140°F
Heating Value	<1,000 BTU/lb
Total Resin Solids	1 - 5%
Total Pigment Solids	None
Solvents	1 - 5%
Water	90 - 98%
Weight/Gallon	8.3 - 8.5 lb/gal

Basis for hazardous designation:

Assumed ignitable and corrosive characteristics based on knowledge of the waste.

C-1. Attachment N.

Paint Plant Caustic Cleaning Water
(D001, D002, D007, D008, D009)

General Description:

Liquid

Flash Point	<140°F
Heating Value	<1,000 BTU/lb
Total Resin Solids	1 - 5%
Total Pigment Solids	15 - 25%
Solvents	1 - 5%
Water	75 - 80%
Weight/Gallon	8.5 - 9 lb/gal

Basis for hazardous designation:

Assumed EP Toxic, ignitable and corrosive characteristics based on knowledge of similar wastes generated at other PPG facilities.

C-1. Attachment O.

Resin Plant Caustic Cleaning Water
(D001, D002)

General Description:

Liquid

Flash Point	<140°F
Heating Value	<1,000 BTU/lb
Total Resin Solids	1 - 5%
Total Pigment Solids	None
Solvents	1 - 5%
Water	90 - 98%
Weight/Gallon	8.3 - 8.5 lb/gal

Basis for hazardous designation:

Assumed ignitable and corrosive characteristics based on knowledge of the waste.

C-1. Attachment P.

Resin Plant Wastewaters
(D001)

General Description:

Liquid	
Flash Point	<140°F
Heating Value	<5000°F
Total Resin Solids	1 - 5%
Total Pigment Solids	None
Solvents	1 - 5%
Water	90 - 98%
Weight/Gallon	8 - 8.3 lb/gal

Basis for hazardous designation:

Assumed ignitable based on knowledge of similar wastes generated at other PPG facilities.

C-1. Attachment Q.

Cationic Wastewater
(D001)

General Description:

Liquid	
Flash Point	<140°F
Heating Value	<1000°F
Total Resin Solids	0.5 - 5%
Total Pigment Solids	None
Solvents	1 - 10%
Water	85 - 99%
Weight/Gallon	8.3 - 8.5 lb/gal

Basis for hazardous designation:

Tested for ignitability.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040559
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0069-03 - Cationic Washwater

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	< 0.01	mg/l
M040	Barium (Ba)	1.0	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.06	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	2.0	mg/l
M141	Chromium, Hexavalent(Cr+6)	< 1	mg/l
M150	Cobalt (Co)	< 0.1	mg/l
M160	Copper (Cu)	1.7	mg/l
M190	Iron,total (Fe)	0.4	mg/l
M230	Magnesium (Mg)	0.4	mg/l
M240	Manganese (Mn)	0.9	mg/l
M270	Nickel (Ni)	0.5	mg/l
M310	Sodium (Na)	210	mg/l
M320	Strontium (Sr)	< 1	mg/l
M390	Zinc (Zn)	0.6	mg/l
OF01	Xylenes	< 2	mg/l
OF04	Acetone	44	mg/l
OF05	2-butanone	790	mg/l
OF08	4-methyl-2-pentanone	140	mg/l
OF09	Styrene	< 2	mg/l
OM32	Butyl Cellosolve	77000	mg/l
OM58	1-Butanol	3700	mg/l
OM79	Cellosolve Acetate	< 100	mg/l
OV03	Benzene	< 2	mg/l
S040	British Thermal Units	WNC	
S064	Chlorine, Organic	< 0.1	%

RECEIVED MAY 16 1985 ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

C-1-Q(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205
412-788-1080

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040559
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0069-03 - Cationic Washwater

TEST	DETERMINATION	RESULTS	UNITS
S098	Fluorine, Organic	< 0.01	%
S168	Specific Weight	8.5	lb/gal
S195	% Water (Karl Fisher)	71.7	% - recheck 84%
S210	Viscosity	10	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W032	Ammonia as N (distillation)	5.7	mg/l
W050	BOD, 5-day (02)	4800	mg/l
W120	COD (02)	170000	mg/l
W270	Cyanide, total (CN)	< 0.1	mg/l
W435	Nitrogen, Kjeldahl (N)	59	mg/l
W440	Nitrogen, Organic (N)	53	mg/l
W500	Phenolics	2.6	mg/l
W590	Solids, dissolved at 180 C	3410	mg/l
W610	Solids, suspended at 103 C	56	mg/l
W625	Solids, vol total at 550 C	2280	mg/l
W740	Sulfide (S)	0.1	mg/l

RECEIVED
MAY 16 1985
ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

COMMENTS: WNC indicates that the sample will not combust. < means detection limit

C-1-Q(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041216
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0069-03A - Cationic Washwater Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.38	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.0006	mg/l
M290	Selenium (Se)	0.30	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-Q(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85-00069-00 LOCATION: OAK CREEK

DATE REC'D: 3-8-85 DATE SAMPLED: 12-19-85

ANALYSIS	DATE	RESULTS					
T.E.P.	4-3-85	SOLIDS	102 gm	INIT. DiH_2O	1632 ml	FINAL DiH_2O	406 ml
	used	ACID SOLN.	2 ml	INIT. pH	5.2	FINAL pH	4.4
F.PT.	4-4-85		92°F				
% SOLIDS			____				
C.O.D.			____ mg/l				

OTHER:
pH 4-5-85 5.8

RECEIVED
MAY 14 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-77 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

James Robinson DATE: 5-10-85

C-1. Attachment R.

Wastewater Treatment Supernatant
(D001, D007, D008, D009)

General Description:

Liquid

Flash Point	Possibly <140°F
Heating Value	<1,000 BTU/lb
Total Resin Solids	<0.5%
Total Pigment Solids	<0.05%
Solvents	Trace
Water	99.5%
Weight/Gallon	8.3 lb/gal
pH	7.5 - 9.5

Basis for hazardous designation:

Possibly ignitable based on similar waste from other PPG facilities. Assumed EP Toxic based on total metal analysis of the waste.

Rexnord

LABORATORY REPORT

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

DATE: 5/26/81

PURCHASE ORDER NO.: 19291 REXNORD WORK ORDER NO.: FG 41427

Analysis of Aqueous Waste Stream from Waste Treatment Center.

Supernatant

Sample Identification	Parameter						
	Lead	Titanium	Chromium	Zinc	Mercury	pH	TOC
816 - 014 Before Treatment	76	6	51	52	0.600	10.9	4400
816 - 014 Decant Top	1.8	4	11	0.22	0.036	10.9	2000
816 - 014 After Treatment (Sludge)	68	<0.5	47	43	2.560	10.8	5000
816 - 014 Decant Bottom	1.2	2.5	7.2	0.17	0.112	9.2	2700
817 - 025 Before Treatment	40	5	24	41	4.300	11.3	6400
817 - 025 Decant Top	1.7	<0.5	12	0.22	0.162	11.3	4500
817 - 025 After Treatment (Sludge)	57	6.5	27	58	2.440	11.3	6000
817 - 025 Decant Bottom	1.8	<0.5	8.7	0.33	0.085	9.6	8300

(continued page 2)

Thank you for your order.

C-1-R(-2)

RECEIVED
ENGINEERING
& CONTROL DEPARTMENT

Rexnord

LABORATORY REPORT

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

DATE: 5/26/81

PURCHASE ORDER NO.: 19291 REXNORD WORK ORDER NO.: FG 41427

Parameter

Sample Identification	Lead	Titanium	Chromium	Zinc	Mercury	pH	TOC
816 - 015 Before Treatment	16	2	3.55	27	1.220	9.9	2400
816 - 015 Decant Top	8.4	0.5	2.16	1.5	0.077	9.8	1700
815 - 015 After Treatment Sludge	21	2.5	5.1	23	1.460	9.8	2200
816 - 015 Decant Treatment	5.4	<0.5	1.79	2.7	0.140	9.5	1800

All results in mg/ℓ except pH. Samples submitted on 5/6/81.

Thank you for your order.

C-1-R(-3)

Steve Galewski

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

DATE: 3/26/81

PURCHASE ORDER NO.: 19119 REXNORD WORK ORDER NO.: FG 41405

Analysis of aqueous waste stream from waste treatment center.

	Parameter						
Sample	Lead	Chromium	Zinc	Mercury	Titanium	pH	TOC
818-006 A	18	20	14	0.0053	<0.5	7.30	1,900
818-006 B	12	12	9.5	0.0048	<0.5	7.90	2,900
817-011 A	15	7.0	5.7	0.0098	<0.5	7.10	1,200
817-011 B	7.4	7.2	4.7	0.0031	<0.5	4.45	7,700
818-007 A	2.5	2.5	8.2	0.0050	<0.5	7.20	2,000
818-007 B	1.4	1.8	3.9	0.0066	<0.5	6.9	3,500
817-010 A	18	15	5.4	0.0053	0.5	7.45	2,900
817-010 B	16	16	17	0.0098	0.8	-	-
818-005 A	0.6	9.2	13	0.0065	<0.5	6.0	3,800
818-005 B	2.1	6.7	10	0.0053	<0.5	-	-

All results reported in mg/l except pH.

Thank you for your order.

C-1-R(-4)

Steve Galewski

Steve Galewski

C-1. Attachment S.

Wastewater Treatment Sludges
(D001, D007, D008, D009)

General Description:

Sludge	- Pumpable Liquid
Flash Point	<140°F - >140°F
Heating Value	<5,000 BTU/lb
Total Resin Solids	2 - 20%
Total Pigment Solids	5 - 20%
Solvents	1 - 3%
Water	65 - 85%
Weight/Gallon	8.4 - 10 lb/gal
pH	6.1 - 11.3

Basis for hazardous designation:

Assumed EP Toxic characteristics based on knowledge of waste. Also tested for EP Toxicity, ignitability and corrosivity.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238
ATTENTION: MS. CHRIS BABKA

REPORT DATE: 07/02/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040561
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0071-03 - Aqueous Treatment Sludge

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.81	mg/l
M040	Barium (Ba)	61	mg/l
M090	Cadmium (Cd)	0.53	mg/l
M140	Chromium (Cr)	14	mg/l
M200	Lead (Pb)	66	mg/l
M250	Mercury (Hg)	5.0	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	3400	mg/l
M141	Chromium, Hexavalent(Cr+6)	< 2	mg/l Rev.
M150	Cobalt (Co)	2.8	mg/l
M160	Copper (Cu)	2.7	mg/l
M190	Iron,total (Fe)	17000	mg/l
M230	Magnesium (Mg)	100	mg/l
M240	Manganese (Mn)	14	mg/l
M270	Nickel (Ni)	2.4	mg/l
M310	Sodium (Na)	5600	mg/l
M320	Strontium (Sr)	19	mg/l
M390	Zinc (Zn)	570	mg/l
OF01	Xylenes	< 2000	mg/l
OF04	Acetone	< 4000	mg/l
OF05	2-butanone	< 4000	mg/l
OF08	4-methyl-2-pentanone	< 4000	mg/l
OF09	Styrene	< 2000	mg/l
OM32	Butyl Cellosolve	450	mg/l
OM48	Maleic Anhydride	< 500	mg/l
OM58	i-Butanol	740	mg/l
OM79	Cellosolve Acetate	< 100	mg/l
OV03	Benzene	< 2000	mg/l
OV06	Carbon Tetrachloride	< 2000	mg/l

RECEIVED JUL - 8 1985 ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

C-1-S(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101
ATTENTION: CHRIS BARKA

REPORT DATE: 05/15/85

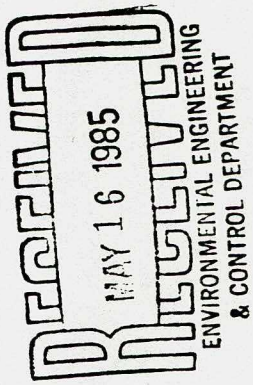
NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040561
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0071-03 - Aqueous Treatment Sludge

TEST	DETERMINATION	RESULTS	UNITS
8V22	Methylene Chloride	150000	mg/l
8V25	Toluene	< 2000	mg/l
8V30	Trichlorofluoromethane	< 2000	mg/l
S040	British Thermal Units	WNC	
S064	Chlorine, Organic	< 0.1	%
S168	Specific Weight	9.2	lb/gal
S195	% Water (Karl Fisher)	72.2	%
S210	Viscosity	15	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W022	Alkalinity, Total (CaCO3)	1700	mg/l
W270	Cyanide, total (CN)	1.1	mg/l
W500	Phenolics	7.4	mg/l
W590	Solids, dissolved at 180 C	16200	mg/l
W610	Solids, suspended at 103 C	10300	mg/l
W625	Solids, vol total at 550 C	29900	mg/l
W740	Sulfide (S)	< 4	mg/l

X - not possible

- recheck 78%



COMMENTS: WNC indicates that the sample will not combust. < means detection limits. Chlorinated compounds should be much less than detection limits.

C-1-S(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101
ATTENTION: CHRIS BABKA

REPORT DATE: 05/31/85

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041482
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0071-03A - Aqueous Treatment Sludge Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.30	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.0068	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

RECEIVED
JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < mean detection limit

C-1-S(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85-0071-00 LOCATION: OAK CREEK

DATE REC'D: 3-8-85 DATE SAMPLED: 12-18-85

ANALYSIS	DATE	RESULTS					
T.E.P.	4-8-85	SOLIDS	110gm	INIT. DiH_2O	1760ml	FINAL DiH_2O	413ml
	used	ACID SOLN.	27ml	INIT. pH	6.7	FINAL pH	5.2
F.PT.			70°F				
% SOLIDS	--		____				
C.O.D.			____ mg/l				

OTHER:

pH 4-5-85 6.1

RECEIVED
MAY 14 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-71 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

BY: James Robinson DATE 5-13-85

E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 6047

To Dan Scudder
PPG Industries

Subject Characterization of Aqueous Sludge: Analysis for Mercury content

Date 10/15/83

P.O. #

Sample 9/29,9/30/83

	Trial 1 9/29	Trial 2 9/29	Trial 1 9/30	Trial 2 9/30	Mean Value
% Solids	21%	-	37.8%	-	29.4%
% Ash Content	6%	-	17.5%	-	11.8%
Mercury, Total	24.6	88.32	11.1	3.45	31.87

C-1-S(-6)

LAB MANAGER R. C. Schroeser

CBC AQUASEARCH
140 EAST RYAN ROAD (414) 764-7005
OAK CREEK, WISCONSIN 53154 - 4599

LABORATORY REPORT

LABORATORY NUMBER	DATE	PAGE
#83-5175	9/8/83	1

PPG INDUSTRIES, INC.
10800 S. 13TH STREET
OAK CREEK, WI 53154

ATTN: DAN SCUDDER

REFERENCE METHOD:

DATE RECEIVED	DATE COLLECTED
7/8/83	N/A
SAMPLE NAME	
AQUEOUS TREATMENT SLUDGE	
ACCOUNT NUMBER	
#771	

VERBAL

☒ STANDARD METHODS, APHA, 15th EDITION, 1980.
☒ METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTE, EPA, 1979.
☐ TEST METHODS FOR THE EVALUATION OF SOLID WASTE, PHYSICAL, CHEMICAL METHODS, EPA, 1980.

PARAMETER	SAMPLE	EP TOXICITY LIMITS
CADMIUM	1.7	1.0
HEXAVALENT CHROMIUM	0.17	5.0
TOTAL CHROMIUM	37	5.0
COPPER	23	
LEAD	85	5.0
NICKEL	7.8	
ZINC	1,300	
BARIUM	230	100
SILVER	0.2	5.0
IRON	15,000	
MAGNESIUM	410	
ARSENIC	0.029	5.0
SELENIUM	-0.01	1.0
MERCURY	0.20	0.2
MANGANESE	82	
SODIUM	480	
CALCIUM	2,800	
TOTAL SOLIDS	23%	
% WATER	73.8	
pH	9.15 @ 26°C	
FLASH POINT	125°F	

* ALL UNITS ARE EXPRESSED AS:
☐ MG/L ☒ PPM
☐ MG/KG

C-1-S(-7)

9/10/83
DATE

LABORATORY SUPERVISOR

CBC
AQUASEARCH
140 EAST RYAN ROAD (414) 764-7005
OAK CREEK, WISCONSIN 53154 - 4599

LABORATORY NUMBER	DATE	PAGE
#83-5175	9/8/ 83	2

COMPANY NAME
PPG INDUSTRIES

PARAMETERS	SAMPLE
TOTAL CYANIDE	2.4
B.O.D.$_5$	18,900
C.O.D.	32,300
SPECIFIC WEIGHT	1.111
T.O.C.	8600
AMMONIA NITROGEN	150
CHLORIDE	170
FLUORIDE	2.9
PHENOLS	5.8
VISCOSITY(cps)	32.4
% ASH	14%
TOTAL VOLATILE ORGANICS	UNABLE TO RESOLVE WITHOUT MASS SPEC IDENTIFICATION

A (-) SIGN DENOTES A 'LESS THAN' VALUE.

C-1-S(-8)

*UNITS ARE EXPRESSED IN MG/L UNLESS OTHERWISE STATED

9/15/83
DATE

LABORATORY SUPERVISOR

LH

PPG INDUSTRIES

INTER-OFFICE CORRESPONDENCE

Date: June 8, 1981

To: M. Scheerbaum
Oak Creek Plant

From: C. M. Babka

Location: Springdale R&D

Subject: Oak Creek Aqueous Treatment Sludge

File: Waste Analysis

Sample Date: February 4, 1981

Toxic Extraction Results: 4/13/81

Parameter	TEP	RCRA TEP Limit
Units	µg/ml ≡ ppm	mg/l ≡ ppm
Arsenic	<.03	5
Barium	<5	100
Cadmium	<0.1	1
Chromium (Total)	0.2	5
Chromium (+6)	0.02	(5 proposed)
Lead	2.0	5
*Mercury	0.4	0.2
Selenium	<.02	1
Silver	.075	5

* - Exceeds RCRA TEP Limit.

This waste is an EP Toxic Hazardous waste due to Mercury (D009).

C. M. Babka (rx)

C. M. Babka

/n

cc: L. N. Streff/File

C-1-S(-9)

FORM 503-A REV. 6-1-70

ENVIRONMENTAL SAMPLE RESULTS SHEET

K 183

Date Submitted: 4-16-81

Date Completed:

Date Released:

I.H. Sample #:

Submitted By: C. M. Barlow

Extension: 337

Result To: C. M. Barlow

Source: F 1526 Oak Creek Aqueous Waste Extract 4-13-81

Parameter	Date	Result	Reference
Arsenic (As) X	11 May	<0.03	AA81-42
Barium (Ba) ② X	8 May	<5	-40
Cadmium (Cd) X	28 Apr	<0.1	-34
Calcium (Ca)			
Chromium (Tot.) (Cr) X	23 Apr	0.2	-31
Chromium +6 (Cr) X	12 May	0.02	IM3 -108
Copper (Cu)			
Iron (Fe)			
Lead (Pb) * X	23 Apr	0.2	AA81 -29
Magnesium (Mg)			
Manganese (Mn)			
Mercury (Hg) X	13 May	0.4	-43
Nickel (Ni)			
Selenium (Se) X	11 May	<0.02	-45
Silver (Ag) X	8 May	0.075	-41
Sodium (Na)			
Solids; suspended			
Solids; dissolved			
Solids; total			
% Ash @ 550°C			
Zinc (Zn)			

Parameter	Date	Result	Reference
Acetone			
Methyl Ethyl Ketone			
Methyl, i-Butyl Ketone			
Toluene			
i-Butanol			
n-Butanol			
Ethyl Benzene			
Xylene (Tot.)			
Styrene			
Cellosolve Acetate			
Ethyl Cellosolve			
Butyl Cellosolve			
Benzene			
i-propanol			

RECEIVED
MAY 26 1981
ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

* Sample Fixed w/ H_2SO_4
Acetate dissolution Pb = 2.0 mg/l

② Acetate dissolution

Laboratory/Supervisor/Director:

C-1-S(-10)

Date: 5/20/81

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 South 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

DATE: 5/29/81

PURCHASE ORDER NO.: 19354 REXNORD WORK ORDER NO.: FG41435

Analysis of Aqueous ~~still~~ treatment sludge sample submitted on April 24, 1981.

Solids %

Total Solids	8.36%
Volatile Solids	2.21%
Non-Volatile Solids	6.5%

Metals mg/l

As	0.073	pb	9.0
Ba	31	Mg	5.0
Cd	0.15	Mn	3.5
Ca	140	Hg	6.3
$Cr+^3$	1.6	Ni	0.5
$Cr+^6$	<0.1	Se	<0.5
Cu	1.6	Ag	<0.01
Fe	195	Na	1950
		Zn	230

% Solvents (1.607% identified)

Butyl Cellosolve	.021%
Xylene (Total)	1.08%
MIBK	.126%
n-butanol	.018%
i-butanol	.079%
Toluene	.018%
Cellosolve Acetate	.016%
Benzene	.005%
Styrene	.015%
MEK	.220%
Acetone	.009%

Flash Point:	>212°F
Density:	1.013 lbs/gal.
Viscosity:	46 cp



Thank you for your order.

C-1-S(-11)

Steve Galewski

Steve Galewski

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

DATE: 5/26/81

PURCHASE ORDER NO.: 19291 REXNORD WORK ORDER NO.: FG 41427

Analysis of Aqueous Waste Stream from Waste Treatment Center.

Treatment Sludge

Sample Identification	Parameter						
	Lead	Titanium	Chromium	Zinc	Mercury	pH	TOC
816 - 014 Before Treatment	76	6	51	52	0.600	10.9	4400
816 - 014 Decant Top	1.8	4	11	0.22	0.036	10.9	2000
✓ 816 - 014 After Treatment (Sludge)	68	<0.5	47	43	2.560	10.8	5000
816 - 014 Decant Bottom	1.2	2.5	7.2	0.17	0.112	9.2	2700
817 - 025 Before Treatment	40	5	24	41	4.300	11.3	6400
817 - 025 Decant Top	1.7	<0.5	12	0.22	0.162	11.3	4500
✓ 817 - 025 After Treatment (Sludge)	57	6.5	27	58	2.440	11.3	6000
817 - 025 Decant Bottom	1.8	<0.5	8.7	0.33	0.085	9.6	8300

(continued page 2)

Thank you for your order.

C-1-S(-12)

RECEIVED
ENGINEERING
& CONTROL DEPARTMENT

Rexnord

LABORATORY REPORT

TO: Mr. Martin Scheerbaum
PPG Industries
10800 S. 13th Street
Oak Creek, WI 53154

Corporate Research & Development Group
Environmental Research Center
5103 West Beloit Road
P. O. Box 2022
Milwaukee, WI 53201
414/643-2761

DATE: 5/26/81

PURCHASE ORDER NO.: 19291 REXNORD WORK ORDER NO.: FG 41427

Sample Identification	Parameter: Lead	Titanium	Chromium	Zinc	Mercury	pH	TOC
816 - 815 Before Treatment	16	2	3.55	27	1.220	9.9	2400
816 - 815 Decant Top	8.4	0.5	2.16	1.5	0.077	9.8	1700
815 - 815 After Treatment Sludge	21	2.5	5.1	23	1.460	9.8	2200
816 - 815 Decant Treatment	5.4	<0.5	1.79	2.7	0.140	9.5	1800

All results in mg/ℓ except pH. Samples submitted on 5/6/81.

Thank you for your order.

C-1-S(-13) Steve Galewski

File - Oak Creek Waste Analyses

ANALYTICAL LABORATORY FINAL REPORT
SPRINGDALE WET LAB

TO: BABKA

DATE: 3/ 3/81

SAMPLE	CODE	CHG	TEST		RESULT	DATE DONE
22058	E 1220	83	17	WATER	83.2	2/26/81
	A.C. Aqueous Waste 2/4/81		18	WGT/GAL	9.02	2/25/81
			19	FL PT PM	103 F	3/ 3/81
22059	E 1221	83	17	WATER	63.7	2/26/81
	Delaware W-B Flammable Paint Waste Jan-Feb. 1981.		18	WGT/GAL	8.90	2/25/81
			19	FL PT PM	91 F	3/ 3/81
22060	E 1222	83	17	WATER	96.8	2/26/81
	Dev. Center Caustic 8/80.		18	WGT/GAL	8.98	2/25/81
			19	FL PT PM	124 F	3/ 3/81
22061	E 1223	83	17	WATER	0.59	2/26/81
	Spr. Still Sludge 2/19/81		18	WGT/GAL	9.33	2/25/81
			19	FL PT PM	71 F	3/ 3/81
22062	E 1224	83	17	WATER	94.3	2/26/81
	Spr. Resin Plant Caustic Washwater WK of 2/11/81		18	WGT/GAL	8.84	2/25/81
			19	FL PT PM	144 F	3/ 3/81

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MAR 24 1981
ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

PENN ENVIRONMENTAL CONSULTANTS, INC.
FORT PITT PROFESSIONAL BUILDING
1517 WOODRUFF STREET
PITTSBURGH, PA. 15220
412-381-1133

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 151 COLFAX STREET
SPRINGDALE, PA 15144

ATTENTION: MR. JIM DIXON

REPORT DATE: 10.06.80

PEC PROJECT NO: 0165-00
PEC JOB NUMBER: 0371
PEC SAMPLE NO: 59451

DATE RECEIVED: 09.19.80

SAMPLE IDENTIFICATION: O.C. AQUEOUS WASTE 4-27 Treatment Sludge

PARAMETER	SYMBOL	RESULTS	UNITS
BARIUM	BA	5.7	MG/L
CADMIUM	CD	1.6	MG/L
CALCIUM	CA	52800	MG/L
CHROMIUM	CR	26.8	MG/L
COPPER	CU	6.7	MG/L
TOTAL IRON	FE TOTAL	4440	MG/L
MAGNESIUM	MG	740	MG/L
MANGANESE	MN	162	MG/L
MERCURY (COLD VAPOR METHOD)	HG CV	10200	UG/L
NICKEL	NI	5.1	MG/L
ZINC	ZN	5700	MG/L
ARSENIC	AS(LOW)	0.464	MG/L
SELENIUM	SE(LOW)	< .020	MG/L
ACID DIGESTION	ACID DIG		

COMMENTS:

C-1-S(-15)

Reviewed and Approved by:

cc: MS. CHRIS BABKA

File-O.C.
Waste Analy

PENN ENVIRONMENTAL CONSULTANTS, INC.
FORT PITT PROFESSIONAL BUILDING
1517 WOODRUFF STREET
PITTSBURGH, PA. 15220
412-381-1133

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 151 COLFAX STREET
SPRINGDALE, PA 15144

ATTENTION: MR. JIM DIXON

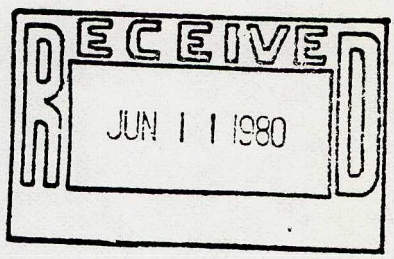
REPORT DATE: 06.09.80

PEC PROJECT NO: 0165-00
PEC JOB NUMBER: 9650
PEC SAMPLE NO: 55133

DATE RECEIVED: 05.21.80

SAMPLE IDENTIFICATION: OAK CREEK AQUEOUS WASTE 4-27-80

PARAMETER	SYMBOL	RESULTS	UNITS
BIOCHEMICAL OXYGEN DEMAND, 5 DAY	BOD-5	28000	MG/L
TOTAL ORGANIC CARBON	TOC	26000	MG/L
CHEMICAL OXYGEN DEMAND	COD	3175	MG/L
CHLORIDE	CL	100	MG/L
TOTAL CYANIDE	CN	0.20	MG/L
FLUORIDE DISTILLATION	F, DIST	6.5	MG/L
AMMONIA NITROGEN, DISTILLATION	NH3-N D	53	MG/L
PHENOLS	PHENOL	3.1	MG/L



COMMENTS:

Reviewed and Approved by:

cc: MS. CHRIS BABKA

File C.C.
Waste Analysis

ANALYTICAL LABORATORY FINAL REPORT
SPRINGDALE WET LAB

TO: BABKA

DATE: 5/22/80

SAMPLE	CODE	CHG	TEST	RESULT	DATE DONE
17500	E 1197 Del. Still Sludge				
		83	19 FL PT PM	74'F	5/22/80
17501	E 1198 Cleveland Still Water				
		83	15 ASH	.15%	5/22/80
			17 WATER	92.3	5/21/80
			18 WGT/GAL	8.48	5/21/80
			19 FL PT PM	101'F	5/22/80
			PH per G. Kirsch		6/20/80
17502	E 1199 O.C. Aqueous Waste				
		83	15 ASH	22.0%	5/22/80
			17 WATER	65.7	5/21/80
			18 WGT/GAL	9.96	5/21/80
			19 FL PT PM	136'F	5/22/80
17503	E 1200 O.C. Still Sludge				
		83	15 ASH	13.47%	5/22/80
			17 WATER	8.93	5/21/80
			18 WGT/GAL	8.85	5/21/80
			19 FL PT PM	82'F	5/22/80

PPG INDUSTRIES, INC.
10800 South 13th St.
POB 28
Oak Creek, Wisconsin 53154
(414) 764-6000

EPA ID#: WID059972935
Facility Contact: Dan Scudder,
Environmental Engineer

Aqueous Treatment Sludge

Generation Rate: 5000 gallons/week

Total Solids	6-35% (Normal 10-15%)
Total Suspended Solids	5-30%
Total Dissolved Solids	1- 5%
Total Volatile Solids	1- 5%
Total Non-Volatile Solids (%Ash @ 550°C)	5-30%

As	< .5ppm	Ca	< 6%
Ba	< 50ppm	Cu	< 10ppm
Cd	< 2ppm	Fe	< .5%
Cr	<100ppm	Mg	< .1%
Cr+6	< 30ppm	Mn	<200ppm
Pb	<200ppm	Ni	< 5ppm
Hg	<200ppm	Na	< .5%
Se	< .5ppm	Zn	< 1%
Ag	< 1ppm		

Total Volatiles	65-94%
%Water	64-91%
%Solvent	<1-3%
Butyl Cellosolve	< .1%
Methyl Ethyl Ketone	< .3%
Xylene	<1.1%
Toluene	< .2%
Ethyl Benzene	<.01%
i-Butanol	<. 1%
n-Butanol	< .1%
Ethyl Cellosolve	<.005%
Methyl IsoButyl Ketone	<.2
Cellosolve Acetate	<.02%
Styrene	<.02%
Benzene	<.04%
Acetone	<.02%

BOD_5	<30000ppm
COD	< 5000ppm
TOC	<30000ppm
NH_3-N	< 100ppm
Chlorides	< 100ppm
Fluorides	< 10ppm
Total Cyanide	< .5ppm
Phenols	< 5ppm

Wt/gal	8.4-9.9LB/gal.
Flashpoint	100->212°F
pH	7-11
Viscosity	100-3000CPS

DOT Shipping Name: Hazardous Waste, Liquid, NOS.
DOT Hazard Class: ORM-E
DOT Code: NA 9189
EPA Waste Codes: D001, D007, D008, D009.

C-1. Attachment T.

Paint Plant Caustic Sludge
(D001, D007, D008, D009)

General Description:

Sludge	
Flash Point	<140°F - >200°F
Heating Value	>5,000 BTU/lb
Total Resin Solids	5 - 20%
Total Pigment Solids	10 - 30%
Solvents	1 - 5%
Water	50 - 70%
Weight/Gallon	9 - 11 lb/gal
pH	11 - 13

Basis for hazardous designation:

Assumed ignitable and EP Toxic based on knowledge of the waste and similar wastes from other PPG facilities. Also tested for EP Toxicity, ignitability and corrosivity.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238
ATTENTION: MS. CHRIS BABKA

REPORT DATE: 07/02/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040560
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/07/85

SAMPLE IDENTIFICATION: OC-85-0070-03 - Caustic Sludge

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.29	mg/l
M040	Barium (Ba)	33	mg/l
M090	Cadmium (Cd)	0.73	mg/l
M140	Chromium (Cr)	20	mg/l
M200	Lead (Pb)	37	mg/l
M250	Mercury (Hg)	9.6	mg/l
M290	Selenium (Se)	< 0.08	mg/l
M300	Silver (Ag)	0.2	mg/l
M050	Beryllium (Be)	0.03	mg/l
M110	Calcium (Ca)	260	mg/l
M141	Chromium, Hexavalent(Cr+6)	< 10	mg/l Rev.
M150	Cobalt (Co)	6.8	mg/l
M160	Copper (Cu)	8.9	mg/l
M190	Iron,total (Fe)	730	mg/l
M230	Magnesium (Mg)	140	mg/l
M240	Manganese (Mn)	3.1	mg/l
M270	Nickel (Ni)	5.3	mg/l
M310	Sodium (Na)	34000	mg/l
M320	Strontium (Sr)	17	mg/l
M390	Zinc (Zn)	83	mg/l
OF05	2-butanone	< 400	mg/l
OF08	4-methyl-2-pentanone	< 400	mg/l
OM48	Maleic Anhydride	< 5000	mg/l
OV06	Carbon Tetrachloride	< 200	mg/l
OV22	Methylene Chloride	< 200	mg/l
OV25	Toluene	< 200	mg/l
OV30	Trichlorofluoromethane	< 200	mg/l
S010	Ammonia, distillation (N)	26	mg/l
S040	British Thermal Units	WNC	
S064	Chlorine, Organic	< 0.1	%
S080	Cyanide, Total (CN)	< 0.1	mg/l

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C-1-T(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/16/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040560
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/07/85

SAMPLE IDENTIFICATION: OC-85-0070-03 - Caustic Sludge

TEST	DETERMINATION	RESULTS	UNITS
S098	Fluorine, Organic	< 0.01	%
S125	Nitrogen, Kjeldahl (N)	< 50	mg/l
S126	Nitrogen, Organic (N)	< 50	mg/l
S168	Specific Weight	9.3	lb/gal
S174	Sulfide by N2 generation (S)	< 2	mg/l
S195	% Water (Karl Fisher)	68.3	% - recheck 79 %
S210	Viscosity	28	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W022	Alkalinity, Total (CaCO3)	71000	mg/l
W500	Phenolics	32	mg/l
W590	Solids, dissolved at 180 C	INT	
W610	Solids, suspended at 103 C	INT	
W625	Solids, vol total at 550 C	180000	mg/l

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ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: INT for solids because sample would not filter. WNC indicates that the sample will not combust.
Chromium and hexavalent chromium results were rechecked. Sample matrix interference causes high Cr+6 results. < means detection limit

Reviewed and Approved by: JMC C-1-T(-3)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041481
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0070-03A - Caustic Sludge Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.25	mg/l
M040	Barium (Ba)	14	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.5	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.28	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

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JUN 05 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-T(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC-85 0070-00 LOCATION: OAK CREEK

DATE REC'D: 3-8-85 DATE SAMPLED: 12-19-85

ANALYSIS	DATE	RESULTS					
T.E.P.	4-8-85	SOLIDS	110gm	INIT. DiH_2O	1760ml	FINAL DiH_2O	0 ml
	used	ACID SOLN.	440ml	INIT. pH	12.4	FINAL pH	5.0
F.PT.		88°F					
% SOLIDS		____					
C.O.D.		____ mg/l					

OTHER:

pH 4-5-85 13.3

RECEIVED
MAY 14 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-T1 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

C-1-T(-5)

Jarred Robinson DATE: 5-13-85

PPG INDUSTRIES
P.O.# 24645

CAUSTIC SLUDGE WASTE
$250.00

1168

SPECIAL WASTE ANALYSIS REPORT

SALES	CODE
CWD	A64309 N

WASTE PROFILE SHEET CODE

LABORATORY: CONTROLLED WASTE DIVISION

PROFILE SHEET RECEIVED ON: 9/13/82 REPRESENTATIVE SAMPLE RECEIVED ON: 9/13/82

CERTIFICATE OF REP. SAMPLE RECEIVED: 9/13/82 SAMPLE TAKEN: 6/23/82

PROPOSED TREATMENT/DISPOSAL FACILITY:

THE ANALYSES BELOW REPORTED WERE SELECTED BY ME, BASED UPON THE GENERATOR'S REPRESENTATIONS IN THE PROFILE SHEET AND ANY APPLICABLE WASTE ANALYSIS PLAN ESTABLISHED BY THE PROPOSED FACILITY FOR WASTE OF THIS TYPE. ANALYSES REQUIRED BY A WASTE ANALYSIS PLAN ARE INDICATED BY AN ASTERISK (*).

DATE OF ANALYSIS: 10/8/82 LAB MANAGER: [signature]

Test	As Received	Leachate	Analyst Initials	Test	As Received	Leachate	Analyst Initials
Specific Gravity	1.24						
pH	11.55		[illegible]				
Acidity, % as							
Alkalinity, % as	[illegible]	[illegible]					
C.O.D., mg/l				Phenols, mg/l	18		
B.O.D., mg/l				Cyanides, as CN, Total, mg/l			
Total Solids @ 105°C	32.38%		[illegible]	Cyanides, as CN, Free, mg/l	150.[illegible]		[illegible]
Total Dissolved Solids, mg/l				Nitrogen, Ammonia, as N, mg/l			
Total Suspended Solids, mg/l				Nitrogen, Organic, as N, mg/l			
Residue on Evaporation @ 180°C				Total Kjeldahl Nitrogen, as N, mg/l			
Flash Point, F°	>200		[illegible]	Total Alkalinity (P), as $CaCO_3$, mg/l			
Ash Content, on ignition				Total Alkalinity (M), as $CaCO_3$, mg/l			
Heating Valve, BTU/lb				Total Hardness, as $CaCO_3$, mg/l			
"Acid Scrub," gNaOH/g				Calcium Hardness, as $CaCO_3$, mg/l			
Arsenic, as AS, mg/l	0.24			Magnesium Hardness, as $CaCO_3$, mg/l			
Barium, as Ba, mg/l	337.68		[illegible]				
Boron, as Bi, mg/l				Oil and Grease, mg/l			
Cadmium, as Cd, mg/l	<0.059		[illegible]				
Chromium, Total as Cr, mg/l							
Hexavalent Chromium @ Cr, mg/l	<0.059		[illegible]	Aldrin, mg/l			
Copper, as Cu, mg/l	0.356		[illegible]	Chlordane, mg/l			
Iron, Total as Fe, mg/l				DDT's, mg/l			
Iron, dissolved, as Fe, mg/l				Dieldrin, mg/l			
Lead, as Pb, mg/l	444.31		[illegible]	Endrin, mg/l			
Manganese, as Mn, mg/l				Heptachlor, mg/l			
Magnesium, as Mg, mg/l				Lindane, mg/l			
Mercury, as Hg, mg/l	190			Methoxychlor, mg/l			
Nickel, as Ni, mg/l	<0.059		[illegible]	Toxaphene, mg/l			
Selenium, as Se, mg/l	<0.059		[illegible]	Parathion, mg/l			
Silver, as Ag, mg/l	<0.059		[illegible]	2, 4, D, mg/l			
Zinc, as Zn, mg/l	132.70		[illegible]	2, 4, 5, TP (Silvex), mg/l			
				PCB's, mg/l			
Bicarbonates, as HCO_3, mg/l				Layered			[illegible]
Carbonates, as CO_3, mg/l							
Chlorides, as Cl, mg/l				Physical State	[illegible]		[illegible]
Fluorides, as F, mg/l							
Nitrate, as NO_3, mg/l				Color	[illegible]		[illegible]
Nitrite, as NO_2, mg/l							
Phosphate, as P, mg/l				Odor			
Sulfate, as SO_4, mg/l							
Sulfides, as S, mg/l	[illegible]		[illegible]				

THIS REPORT HAS BEEN PREPARED FOR THE EXCLUSIVE USE AND BENEFIT OF WASTE MANAGEMENT OF WISCONSIN, CONTROLLED WASTE DIVISION. NO REPRESENTATION IS MADE TO ANY OTHER PERSON RECEIVING OR ANALYTICAL ACCURACY OR COMPLETENESS IS HEREBY MADE TO ANY OTHER PERSON RECEIVING THIS REPORT.

FORM WM-52 (Rev. 11-80)
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E-A ENVIRO-ANALYSTS, INC.
1300 S. Green Bay Rd.
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No. 3026

To Dan Scudder
PPG Industries

Subject EP Toxicity Test: Caustic
Sludge sample

Date 8/20/82

P.O. # Scudder

Sample 6/23/82

	Caustic mg/l
Arsenic	< 0.01
Barium	41.0
Cadmium	< 0.01
Chromium	2.50
Lead	10.08
Mercury	0.41
Selenium	< 0.01
Silver	0.06
Copper	0.21
Zinc	2.68
Nickel	0.10

C-1-T(-7)

LAB MANAGER: R E Schlosser

CBC **AQUASEARCH**
MILWAUKEE, WISCONSIN 764-7005 ~~821-7020~~

LABORATORY NUMBER	DATE	PAGE
2920,2921	10/9/81	1

2922

LABORATORY REPORT

DATE RECEIVED	DATE COLLECTED
9/23/81	9/23/81
SAMPLE NAME	
Sludge	
ACCOUNT NUMBER	
# 771	

- PPG INDUSTRIES
  10800 South 13th Street
  Oak Creek, Wisconsin 53154

ATTN: M. SCHEERBAUM

REFERENCE METHOD:

[X] STANDARD METHODS, APHA, 14th EDITION, 1975.

[X] METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTE, EPA, 1979.

[ ] TEST METHODS FOR THE EVALUATION OF SOLID WASTE, PHYSICAL, CHEMICAL METHODS, EPA, 1980.

[ ]

PARAMETER	Caustic Powder SAMPLE	Caustic Rinse SAMPLE	Caustic Sludge SAMPLE
MERCURY	-0.002	0.091	4.6
% N_aOH (Alkalinity)	82.6%	4%	10.6%

(-) means 'less than' value.

RECEIVED
OCT 16 1981
ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

C-1-T(-8)

* UNITS ARE EXPRESSED IN MG/L UNLESS OTHERWISE STATED.

10-9-81
DATE

Robert E. Whitmore
LABORATORY SUPERVISOR

CBC AQUASEARCH
MILWAUKEE, WISCONSIN

764-7005
~~321-7020~~

LABORATORY NUMBER	DATE	PAGE
2922	10/9/81	2
COMPANY NAME		
PPG INDUSTRIES		

PARAMETER	EP TOXICITY	EP TOXICITY LIMIT
CADMIUM	0.039	1.0
CHROMIUM	1.2	5.0
LEAD	1.6	5.0
BARIUM	48	100
SILVER	0.01	5.0
ARSENIC	-0.001	5.0
SELENIUM	-0.01	1.0
MERCURY	0.33	0.2

(-) means 'less than' value.

C-1-T(-9)

* UNITS ARE EXPRESSED IN MG/L UNLESS OTHERWISE STATED

10-9-81
DATE

Robert E. Whitman
LABORATORY SUPERVISOR

E-A ENVIRO-ANALYSTS, INC.
1300 S Green Bay Rd
Racine, Wisconsin 53406

LABORATORY REPORT
WASTE WATER EXAMINATION

Report No 2221

To Martin Scheerbaum
PPG Industries
Oak Creek

Subject Revised laboratory analysis of caustic waste stream samples dated 4/11/81.

Date 9/1/81

P.O. # pending

Sample Rec'd 5/15/81

Total Solids	28.8%
% Ash	22.7%
% Volatile Solids (by calculation)	6.1%

Metals (ppm) (approximately 6.0% identified)

Arsenic	<0.1	Magnesium	137.3	Iron	1823.8
Barium	670.0	Manganese	50.1		
Cadmium	1.0	Mercury	150.0		
Chromium, total	22.1	Nickel	10.2		
Chromium +6	<1.0	Silver	0.5		
Copper	19.6	Selenium	<10.0		
Lead	10.2	Zinc	55.4		

Total Volatiles(calculated)	71.2%	
% water	69.5%	
% Solvents(calculated)	1.7%	0.2%(identified)*
Xylene	0.060%	
Butyl Cellosolve	0.014%	
Methyl isobutly ketone	0.012%	
u-butanol	0.029%	
toluene	0.001%	
cellosolve acetate	0.021%	
benzene	0.052%	
methylethyl ketone	0.017%	
styrene	0.001%	
acetaone	0.002%	
isobutanol	0.005%	

* Matrix interferences may have caused incomplete recovery. These values are average values from three analytical runs.

% NaOH 3.3%

C-1-T(-10)

LAB MANAGER R E Schreiber

C-1. Attachment U.

Floor Sweepings
(D007, D008, D009)

General Description:

Solid floor sweeping compound contaminated with dry raw material pigment and resin residues. This waste is usually added to an available paint plant waste filter drum as additional absorbent material.

Basis for hazardous designation:

Assumed EP Toxic characteristics based on knowledge of the waste. Also tested for EP Toxicity.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/15/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040566
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0076-03 - Floor Sweepings

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.61	mg/kg
M040	Barium (Ba)	190	mg/kg
M090	Cadmium (Cd)	0.5	mg/kg
M140	Chromium (Cr)	370	mg/kg
M200	Lead (Pb)	2300	mg/kg
M250	Mercury (Hg)	0.48	mg/kg
M290	Selenium (Se)	< 0.4	mg/kg
M300	Silver (Ag)	< 1.0	mg/kg
M050	Beryllium (Be)	< 0.2	mg/kg
M110	Calcium (Ca)	2200	mg/kg
M141	Chromium, Hexavalent(Cr+6)	< 10	mg/kg
M150	Cobalt (Co)	< 1.0	mg/kg
M160	Copper (Cu)	1.0	mg/kg
M190	Iron,total (Fe)	33000	mg/kg
M230	Magnesium (Mg)	330	mg/kg
M240	Manganese (Mn)	73	mg/kg
M270	Nickel (Ni)	< 3.0	mg/kg
M310	Sodium (Na)	90	mg/kg
M320	Strontium (Sr)	10	mg/kg
M390	Zinc (Zn)	27	mg/kg
S015	% Ash @ 550 C	37	%
S040	British Thermal Units	7600	BTU/lb
S120	% Moisture (As received)	7.4	%
S165	% Solids, total at 103 C	92.8	%
S170	Specific Gravity	INT	
S950	Acid Digestion		
S955	Water Digestion		
M490	pH	6.9	

RECEIVED MAY 16 1985 ENVIRONMENTAL ENGINEERING & CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-U(-2)

Reviewed and Approved by: JMC

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: CHRIS BABKA

NUS CLIENT NO: 320201
NUS SAMPLE NO: 15041484
VENDOR NO: 01831711
WORK ORDER NO: 55830
DATE RECEIVED: 04/19/85

SAMPLE IDENTIFICATION: OC-85-0076-03A - Floor Sweepings Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.52	mg/l
M040	Barium (Ba)	1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	1.0	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.0003	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

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& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-U(-3)

Reviewed and Approved by: JMC

C-1. Attachment V.

Floor Cleaning Solution
(D001, D007, D008, D009 or F003, F005)

General Description:

Liquid	- Usually a Solvent Mixture
Flash Point	<140°F
Heating Value	10,000 - 16,000 BTU/lb
Total Resin Solids	0.5 - 1%
Total Pigment Solids	<0.5%
Solvents	95 - 99%
Water	1 - 5%
Weight/Gallon	7.3 - 7.5 lb/gal

This waste is added to the Paint Plant dirty solvent waste to be recycled.

Basis for hazardous designation:

Assumed ignitable and EP Toxic based on knowledge of the waste. Also tested for EP Toxicity and ignitability.

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

ATTENTION: CHRIS BABKA

REPORT DATE: 05/15/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040563
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0073-03 - Floor Cleaning Solution

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.065	mg/l
M040	Barium (Ba)	8	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	5.7	mg/l
M200	Lead (Pb)	14	mg/l
M250	Mercury (Hg)	0.05	mg/l
M290	Selenium (Se)	< 0.04	mg/l
M300	Silver (Ag)	< 0.1	mg/l
M050	Beryllium (Be)	< 0.02	mg/l
M110	Calcium (Ca)	33	mg/l
M141	Chromium, Hexavalent(Cr+6)	INT	
M150	Cobalt (Co)	< 0.1	mg/l
M160	Copper (Cu)	0.7	mg/l
M190	Iron,total (Fe)	150	mg/l
M230	Magnesium (Mg)	6.0	mg/l
M240	Manganese (Mn)	15	mg/l
M270	Nickel (Ni)	< 0.3	mg/l
M310	Sodium (Na)	32	mg/l
M320	Strontium (Sr)	6	mg/l
M390	Zinc (Zn)	5.0	mg/l
OF01	Xylenes	37000	mg/l
OF04	Acetone	< 8000	mg/l
OF05	2-butanone	22000	mg/l
OF08	4-methyl-2-pentanone	96000	mg/l
OF09	Styrene	< 4000	mg/l
OM32	Butyl Cellosolve	28000	mg/l
OM58	i-Butanol	290000	mg/l
OM79	Cellosolve Acetate	< 1000	mg/l
OV03	Benzene	< 4000	mg/l
OV22	Methylene Chloride	< 4000	mg/l
S040	British Thermal Units	16000	BTU/lb

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C-1-V(-2)

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: 260 KAPPA DRIVE
PITTSBURGH, PA 15238

ATTENTION: MS. CHRIS BABKA

REPORT DATE: 07/02/85

NUS CLIENT NO: 320245
NUS SAMPLE NO: 15040563
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/08/85

SAMPLE IDENTIFICATION: OC-85-0073-03 - Floor Cleaning Solution

TEST	DETERMINATION	RESULTS	UNITS
S064	Chlorine, Organic	0.7	%
S098	Fluorine, Organic	0.01	%
S168	Specific Weight	7.3	lb/gal
S190	Sulfur, total	< 0.05	%
S195	% Water (Karl Fisher)	1.4	%
S210	Viscosity	6.0	CP
S950	Acid Digestion		
S971	Ashing		
S980	Oxygen Bomb Preparation		
W022	Alkalinity, Total (CaCO3)	100	mg/l
W032	Ammonia as N (distillation)	1.4	mg/l
W050	BOD, 5-day (O2)	INT	
W120	COD (O2)	INT	
W270	Cyanide, total (CN)	0.1	mg/l
W435	Nitrogen, Kjeldahl (N)	120	mg/l
W440	Nitrogen, Organic (N)	120	mg/l
W500	Phenolics	9.8	mg/l
W590	Solids, dissolved at 180 C	5190	mg/l
W610	Solids, suspended at 103 C	900	mg/l
W625	Solids, vol total at 550 C	6600	mg/l

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COMMENTS: INT on analyses because sample was not water soluble. REVISED DISSOLVED AND SUSPENDED SOLIDS DATA.
< means detection limit. Benzene and chlorinated compounds are much less than detection limits.

C-1-V(-3)

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: PPG INDUSTRIES, INC.
ADDRESS: ROSANNA DRIVE
ALLISON PARK, PA 15101

REPORT DATE: 05/31/85

ATTENTION: MS. C. BABKA

NUS CLIENT NO: 320237
NUS SAMPLE NO: 15041217
VENDOR NO: 01831710
WORK ORDER NO: 55830
DATE RECEIVED: 04/17/85

SAMPLE IDENTIFICATION: OC-85-0073-03A - Floor Cleaning Solution Extract

TEST	DETERMINATION	RESULTS	UNITS
M270	RCRA METALS		
M030	Arsenic (As)	0.32	mg/l
M040	Barium (Ba)	< 1	mg/l
M090	Cadmium (Cd)	< 0.05	mg/l
M140	Chromium (Cr)	0.1	mg/l
M200	Lead (Pb)	< 0.3	mg/l
M250	Mercury (Hg)	0.009	mg/l
M290	Selenium (Se)	0.22	mg/l
M300	Silver (Ag)	< 0.1	mg/l
S950	Acid Digestion		
S971	Ashing		

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& CONTROL DEPARTMENT

COMMENTS: < means detection limit

C-1-V(-4)

Reviewed and Approved by: JMC

PPG Industries, Inc. Rosanna Drive P.O. Box 9 Allison Park, Pennsylvania 15101 (412) 487-4500

Research Center
Coatings and Resins Division

PPG ENVIRONMENTAL LAB REPORT

SAMPLE #: OC 85.0073-00 LOCATION: OAK CREEK

DATE REC'D: ~~12.18.85~~ 3.8.85 DATE SAMPLED: ~~3.8.85~~ 12.18.85

ANALYSIS	DATE	RESULTS					
T.E.P.	4.10.85	SOLIDS	110 ppm	INIT. DiH_2O	1760 ml	FINAL DiH_2O	439 ml
	used	ACID SOLN.	1 ml	INIT. pH	5.0	FINAL pH	4.5
F.PT.			42°F				
% SOLIDS			____				
C.O.D.			____ mg/l				

OTHER:

pH 4.18.85 7.8

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MAY 14 1985
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& CONTROL DEPARTMENT

PROCEDURES AND COMMENTS:

EPA SW-846 METHOD 1310 (TEP)
ASTM D-93-77 (FLASH POINT)
HACH METHOD (EPA ACCEPTED) MODEL 16500 (COD)

NAME: [illegible] DATE: 5.13.85

C-1. Attachment W.

Discarded or Spilled Raw Materials
(P000 - U000 Codes)

General Description:

See attached Table for list of chemicals and their physical properties. These materials are only wastes if discarded or spilled.

Basis for hazardous designation:

Listed if discarded or spilled. Physical properties can be obtained from Material Safety Data Sheets or Raw Material Supplier information.

C-1. Attachment W. Discarded or Spilled Raw Materials

EPA Waste Code	Chemical Name	PPG Code	PHYSICAL PROPERTIES							
			f.pt., °F	wt/gal	b.pt., °F	V.P., mm Hg	Physical State	% Solids	% Ash	Other
P092	Phenylmercuric acetate	AMC-207	240	10.40	—	—	Liquid	30	12.1	18% Hg metal
U002	Acetone	SKG-71	0	6.61	134	186	Liquid			
U007	Acrylamide Acrylamide briquettes	KMQ-1932 KMV-4909		9.11 9.11			Solid Solid?			
U008	Acrylic acid	KMX-9393	130	8.79	287	4.0	Liquid			
U031	n-butyl alcohol	SAA-38	84	6.75	243	5.5	Liquid			
U056	Cyclohexane	SLE-1509	0	6.52	179	78	Liquid			
U057	Cyclohexanone	SKP-905	111	7.91	313	3.4	Liquid			
U069	di-n-butyl phthalate	FQJ-3089	340	8.73	635		Solid			
U080	Dichloromethane	75-10								paint stripper
U107	di-n-octyl phthalate	FQE-158	425	8.21			Solid			
U112	Ethyl acetate	SSE-255	24	7.51	171	76	Liquid			
U113	Ethyl acrylate	KMA-285	48	7.7	211	31	Liquid			
U122	Formaldehyde	KZL-1893	166	8.13	219	22	Liquid			40% dissolved in n-butanol
U123	Formic acid	KHB-5274	122	10.1	213	33	Liquid			
U140	Isobutyl alcohol	SAM-49	82	6.68	225	8	Liquid			
U147	Maleic anhydride	KHK-377	215	12.31	395	0.15	Solid			
U154	Methanol	SAE-95	52	6.62	147	97	Liquid			
U159	Methyl ethyl ketone	SKF-74	16	6.71	176	71.2	Liquid			
U161	Methyl isobutyl ketone	SKH-8690	64	6.68	244	16	Liquid			
U162	Methyl methacrylate	KMJ-398	50	7.89	212	29	Solid			
U190	Phthalic anhydride	KHA-254	305	12.75	543	<1	Solid			
U197	p-benzoquinone	KJV-953		11		0.1	Solid			
U220	Toluene	SRT-87	40	7.21	231	22.4	Liquid			
U223	Toluene diisocyanate	KQX-747	270	10.17	484	0.01	Solid			
U239	Xylene	SRC-75	81	7.16	281	6.3	Liquid			

C-1. Attachment X.

Off-site Wastes

General Description:

Off specification or obsolete products and/or wastes are occasionally returned to PPG Oak Creek from offsite PPG product distribution centers. The materials are returned in small containers, and consolidated with other PPG Oak Creek wastes. These materials may consist of the same categories of waste that PPG Oak Creek generates:

Solvent-Base Paint Waste

Water-Base Paint Waste

Dirty Solvent

Washwaters

The majority of the wastes come from small quantity generators.

Basis for hazardous designation:

Assumed EP Toxic and/or ignitable based on knowledge of the wastes and similarity to other PPG wastes.

C-1. Attachment Y.

Off-Specification Products

General Description:

Off specification or obsolete products are occasionally declared waste when reuse or re-formulation is not possible. These materials could be either paint or resin and would be included with and handled in the same manner as paint and resin wastes.

Basis for hazardous designation:

Declared hazardous when discarded. Physical properties can be obtained from Material Safety Data Sheets or product formulas. Testing for hazardous characteristics is required only if the material cannot be identified.

C-1. Attachment Z.

Laboratory Paint and Resin Wastes
(D001, D002, D003, D004, D005, D006, D007, D008, D009)

General Description:

Quality control samples taken from the production processes are discarded after analysis is complete and they are no longer needed. Samples are segregated by type, e.g. paint resin, raw material, and by compatibility, e.g. corrosive versus flammable. These wastes are handled in the same manner as similar production wastes.

Basis for hazardous designation:

Assumed hazardous based on knowledge of products and raw materials.

SECTION D

PROCESS INFORMATION

This section provides specific information on the hazardous waste management operations at the PPG Coatings and Resins Plant in Oak Creek, Wisconsin. It is presented in accordance with the requirements 40 CFR Part 270.15 and 270.16 as well as 40 CFR Part 264.190 through 264.194.

D-1 Containers - Storage/Treatment Area - Item 4

PPG uses containers for holding and storing hazardous wastes until they are transported off-site for treatment or disposal. Hazardous wastes are placed into containers at varying accumulation locations throughout the Oak Creek Plant. The containerized hazardous wastes are moved to one of the two permitted areas -- Items 4 and 5 shown in Figure D-1-1 -- before the 90-day accumulation periods expire. Containers are usually stored on pallets to facilitate movement of containers and to prevent the containers from coming into contact with any spills, leaks, or runoff. The labeled containers remain in storage until the plant arranges for off-site disposal.

D-1a Containers with Free Liquids

D-1a(1) Description of Containers (40 CFR 264.171 and 264.172)

All wastes stored in this facility (listed in Table D-1-1) are containerized in DOT specification 17E closed-head or 17H open-head carbon steel 55-gallon drums. These drums are 24 inches in diameter and 36 inches in height, can hold a maximum of 750 pounds and all open-head drums have bolted rings on the lids. Used raw material or product drums with all previous markings obliterated are used to store wastes if the

waste is compatible with any residual material in the drum. Because the hazardous properties of the wastes are similar to those of the raw materials used and the products produced, most used drums are suitable for waste storage without being decontaminated. Otherwise, reconditioned drums are used.

If required by a future incineration disposer, fiber or plastic containers meeting the appropriate DOT specifications will be used to store waste at this facility.

Five gallon steel or plastic containers are used to store wastes in this area until the contents of these containers are transferred to the appropriate treatment tank or consolidated with a 17E or 17H drum. These five gallon pails meet DOT specifications 37C and can contain the wastes listed in Table D-1-1 except caustic and wastewater treatment sludges. Plastic pails are used only for water-based wastes.

D-1a(2) Container Management Practices (40 CFR 264.173)

The hazardous wastes managed in container storage/treatment area (Item 4) are listed in Table D-1-1. Hazardous wastes, as generated by the various manufacturing operations, are placed in labeled containers. The labels are for internal use only. After being filled, the containers are sealed and moved from the

satellite accumulation areas to a transfer accumulation area prior to movement to the storage areas (Item 4). The labels on the containers give the date, drum number, location of generation and a general description of the waste. This practice ensures that all containers will be properly identified and handled.

Some wastes are treated in containers at Container Storage/Treatment Area (Item 4). Absorbent is added to some wastes while the containers are being filled. This activity is currently exempt from regulation. Absorbent is also added prior to shipment off-site. These absorbent additions are made in order to prevent separation of free liquids within the containers. Solidification agents may also be used for this purpose. Only solidification agents will be added to containers containing free liquids when so required by the regulations.

Containers of filled and sealed hazardous waste are placed on pallets for transportation by forklift. The pallets in the storage/treatment areas are not stacked more than three tiers high and two wide. This provides aisle space between each group. Once transported to a storage area, the filled containers could either remain in storage until transported off-site, 2) be transferred to a blending tank, or 3) be consolidated into another container. Physically incompatible materials are segregated in the storage areas.

Recordkeeping procedures for container management and general hazardous waste management are discussed in Attachment D-1.

Container Storage Area-Item 4 consists of a 40 1/2' x 50' contiguous area as shown in Figure D-1-2. This area is paved with 8" of reinforced concrete laid over a 4" compacted sand base. This container storage area is adjacent to the waste treatment center. The container storage area is sloped to a grated sump as shown in Figure D-1-2. The sump is used for collection and inspection of runoff liquids. The storage area is surrounded by curbs to prevent run-on and to contain direct precipitation as well as leaks or spills. The maximum volume of hazardous waste that could be stored in this area is approximately 300 - 55 gallon containers, which is equivalent to 16,500 gallons. Pallets of containers are placed in rows no more than two pallets wide with 3 foot minimum aisles between rows of containerized wastes. Aisle spacing allows for inspection of containers. Filled containers are never stacked more than three tiers high. The layout of Item 4 is shown in Figure D-1-3. Although several wastes can be handled in this area, usually only containers of one waste stream are stored at a time. This storage area is predominantly used for consolidation of like wastes for treatment or off-site disposal.

D-1a(3) Secondary Containment System Design and Operation
(40 CFR 264.175(b), 264.175(b)(1), 264.175(b)(2), 264.175(b)(3), and 264.175(b)(4))

The secondary containment system of Container Storage Area-Item 4 is constructed of concrete, and includes containment

within a sump of 850 gallons. Secondary containment within the 4" perimeter curb is 4,920 gallons. The total secondary containment volume is therefore 5,770 gallons, which exceeds the capacity necessary to retain 10% of the total hazardous waste storage volume (1,650 gallons), assuming all wastes are 100% liquids, which in most cases they are not. Since Storage Area Item 4 is not roofed, the sump and diked area provides collection and control of direct precipitation due to rainfall events. Additionally, the surrounding land is graded to encourage runoff away from the storage area. The concrete pad and sump are currently in good condition to contain leaks or spills. The pad and sump were designed free of any gaps, holes, or cracks. The base of the storage area is sloped approximately 1% toward the sump area.

D-1a(4) Removal of Liquids from Collection System
(40 CFR 264.175(b)(5))

The secondary containment system of Container Storage Area - Item 4 is regularly inspected to ensure that collected liquids do not overtop the surrounding curbs. Odor (solvent smell) and pH will be checked in all collected liquids along with a visual inspection (presence of sheen, phase separation, or evidence of punctured container). If any doubt surrounds the source or characteristics of any liquid, a sample will be analyzed for indicator parameters such as COD, TOC, and oil and grease.

If contamination is verified, the liquid will be removed from the containment system. If the liquid is not suspected of being contaminated, then it is released to the sanitary sewer system or to the waste treatment center. If contamination of the liquid is found, then the liquid will be removed by pumping to drums, by manual clean-up via addition of absorbent materials, or by transferring to the waste treatment center. Any drums containing this contaminated material will be labeled, sealed, and stored in a hazardous waste storage area until on-site management or off-site disposal is arranged. In conjunction with contaminated material removal, an investigation will be conducted to determine and correct the cause of the release of the hazardous liquid. This investigation will also determine appropriate steps to prevent reoccurrence of the problem.

D-1b Containers Without Free Liquids (40 CFR 264.175)

All containers having no free liquids are stored by PPG utilizing the same secondary containment system as used for containers with free liquids. These containment facilities consist of a sloped concrete pad area with adequate containment volume for compatible liquid wastes stored on

the pad. Containers are stored on pallets to prevent contact with accumulated liquid and stacked to a maximum height of three pallets to minimize damage to containers.

Where appropriate, PPG adds absorbents to containers to eliminate free liquids. These containers are then handled as containers without free liquids. When required by RCRA amendments, PPG will terminate the use of absorbents and substitute solidification agents. Confirmation of the absence of free liquids will be determined by the use of the paint filter test.

D-2 Containers - Storage/Treatment Area - Item 5

PPG uses containers for holding and storing hazardous wastes until they are transported off-site for treatment or disposal. Hazardous wastes are placed into containers at varying accumulation locations throughout the Oak Creek Plant. The containerized hazardous wastes are moved to one of the two permitted areas -- Items 4 and 5 shown in Figure D-1-1 -- before the 90-day accumulation period expires. Containers are usually stored on pallets to facilitate movement of containers and to prevent the containers from coming into contact with any spills, leaks, or runoff. The labeled containers remain in storage until the plant arranges for off-site disposal.

D-2a Containers with Free Liquids

D-2a(1) Description of Containers (40 CFR 264.171 and 264.172)

All wastes stored in this facility (listed in Table D-2-1) are containerized in DOT specification 17E closed-head or 17H open-head carbon steel 55-gallon drums. These drums are 24 inches in diameter and 36 inches in height, can hold a maximum of 750 pounds and all open-head drums have bolted rings on the lids. Used raw material or product drums with all previous markings obliterated are used to store wastes if the

waste is compatible with any residual material in the drum. Because the hazardous properties of the wastes are similar to those of the raw materials used and the products produced, most used drums are suitable for waste storage without being decontaminated. Otherwise, reconditioned drums are used.

If required by a future incineration disposer, fiber or plastic containers meeting the appropriate DOT specifications will be used to store waste at this facility.

D-2a(2) Container Management Practices (40 CFR 264.173)

The hazardous wastes managed in container storage/treatment area (Item 6) are listed in Table D-2-1. Hazardous wastes, as generated by the various manufacturing operations, are placed in labeled containers. The labels are for internal use only. After being filled, the containers are sealed and moved from the satellite accumulation areas to a transfer accumulation area prior to movement to the storage areas (Item 5). The labels on the containers give the date and drum number, location of generation and general description of the waste. This practice ensures that all containers will be properly identified and handled.

Some wastes are treated in containers at the Container Storage/Treatment Area (Item 5). Absorbent is added to some wastes while the containers are being filled. This activity is currently exempt from regulation. Absorbent is also added prior to shipment off-site. These absorbent additions are made in order to prevent separation of free liquids within the containers. Solidification agents may also be used for this purpose. Solidification agents only will be added to containers with free liquids when so required by the regulations.

Containers of filled and sealed hazardous waste are placed on pallets for transportation by forklift. The pallets in the storage/treatment areas are not stacked more than three tiers high and two wide. This provides aisle space between each group. Once transported to a storage area, the filled containers could either remain in storage until transported off-site, 2) be transferred to a blending tank, or 3) be consolidated into another container. Physically incompatible materials are segregated in the storage areas.

Recordkeeping procedures for container management and general hazardous waste management are discussed in Attachment D-1.

Container Storage Area - Item 5 consists of a 100' x 60' contiguous area as shown in Figure D-2-1. This area is paved with 8" of reinforced concrete laid over an 8" base of crushed stone. This container storage area is directly adjacent to the east internal access road which is used for all movements of containerized hazardous waste out of the storage area. Containerized Storage Area (Item 5) is sloped and is provided with curbs as shown in Figure D-2-1. A sump is used for collection and inspection of liquids from the container storage area. The maximum volume of hazardous waste that could be stored in this area is approximately 2,700 - 55 gallon containers, or 148,500 gallons. Pallets of containers are placed in rows no more than two pallets wide with three foot miniumum aisles between rows of containerized wastes. Aisle spacing allows for inspection of containers. Rows and aisles will be designated by lines painted on the pavement. Filled containers are not stacked more than three tiers high. The layout of Item 5 is shown in Figure D-2-2.

D-2a(3) Secondary Containment System Design and Operation (40 CFR 264.175(b), 264.175(b)(1), 264.175(b)(2), 264.175(b)(3), and 264.175(b)(4))

The secondary containment system of Container Storage Area - Item 5 is constructed of concrete, and includes containment within the sump of 2,100 gallons and containment within the storage area of 13,000 gallons. The total secondary containment volume is therefore approximately 15,000 gallons. This volume is in excess of that necessary to contain 10% of the total hazardous waste storage volume, assuming all wastes are 100% liquids, which in most cases they are not. Since container Storage Area - Item 5 is not roofed, the sump and diked area provide collection and control of direct precipitation due to rainfall events. Additionally, the surrounding land is graded to encourage runoff away from the storage area. The concrete pad and sump are currently in good condition to contain leaks or spills. The pad and sump were designed free of any gaps, holes, or cracks. The base of the storage area is sloped approximately 2% toward the sump area.

D-2a(4) Removal of Liquids from Collection System

The secondary containment system of Container Storage Area - Item 5 is regularly inspected to ensure that collected

liquids do not overtop the surrounding curbs. Odor (solvent smell) and pH will be checked in all collected liquids along with a visual inspection (presence of sheen, phase separation, or evidence of punctured container). If any doubt surrounds the source or characteristics of any liquid, a sample will be analyzed for indicator parameters such as COD, TOC, and oil and grease. (Limits for COD and oil and grease have been set by the WPDES permit). If contamination is verified, the liquid will be removed from the containment system. If no contamination is suspected or found in the liquid, then it will be released to the permitted storm outfall. If contamination of the liquid is found, then the liquid will be removed by pumping to drums, by manual clean-up via addition of absorbent materials, or by transferring to the waste treatment center. Any drums containing this contaminated material will be labeled, sealed, and stored in a hazardous waste storage area until on-site management or off-site disposal is arranged. In conjunction with contaminated material removal, an investigation will be conducted to determine and correct the cause of the release of the hazardous liquid. This investigation will also determine appropriate steps to prevent reoccurrence of the problem.

D-2b Containers Without Free Liquids (40 CFR 264.175)

All containers having no free liquids are stored by PPG utilizing the same secondary containment system as used for

containers with free liquids. These containment facilities consist of a sloped concrete pad area with adequate containment volume for compatible liquid wastes stored on the pad. Containers are stored on pallets to prevent contact with accumulated liquid and stacked to a maximum height of three pallets to minimize damage to containers.

Where appropriate, PPG adds absorbents to containers to eliminate free liquids. These containers are then handled as containers without free liquids. When required by RCRA amendments, PPG will terminate the use of absorbents and substitute solidification agents. Confirmation of the absence of free liquids will be determined by the use of the paint filter test.

D-3 Tanks - Organic Waste Blending 1901 & 1902 - Items 2 & 3

D-3a Description of Tanks (40 CFR 264.191)

Tanks used for hazardous waste management are as shown in Figure D-3-1.

The two Organic Waste Blending Tanks 1901 and 1902 are located in the waste treatment center and are used to blend compatible but different waste streams in order to render the wastes more amenable for off-site disposal. These tanks are each 6,000 gallons in volume. The wastes treated in these tanks are listed in Table D-3-1, and typically have specific gravities in the range of 0.99 -1.10. Both tanks are agitated to mix the wastes and keep the solids from separating. Each tank typically treats one tank volume of hazardous waste per day, thereby treating a combined total volume of 12,000 gallons per day. The waste from these tanks is shipped off-site in bulk.

The tanks were built third quarter 1974 and put into service first quarter 1975. The shells of the tanks are carbon steel (ASTM A285 GR "C" or ASTM A283 GR "C") and were constructed in accordance with UL-142 "Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids". The tanks were designed for a

temperature of 100°F, a maximum operating volume of 92%, and atmospheric pressures. The sides, top, and bottom of the tanks are 1/4" thick. The tanks sit directly on reinforced concrete pads elevated from the floor of the building. A diagram showing equipment currently in use with the tanks, along with tank dimensions, is provided in Figure D-3-2. Figure D-3-3 is a mechanical drawing of the tanks.

D-3b Tank Corrosion and Erosion (40 CFR 264.192(a))

The Organic Waste Blending Tanks 1901 and 1902 typically manage ignitable or EP toxic wastes, as opposed to corrosive wastes. These tanks are therefore not subject to rapid corrosion or erosion. When built, the tank interiors were cleaned and then coated with Texaco Rustproof Compound "L". Any tank corrosion should be detected during the annual tank shell thickness readings, as discussed in Section F-2. The most recent tank thickness readings were taken on June 17, 1985. All thickness readings on both tanks were within the range of (95-111%) the original tank specifications. These thickness readings demonstrated that very little corrosion or erosion had occurred. Tank thickness readings greater than the original specification results from one of these factors: 1) paint or other exterior coating, 2)

material build-up on interior, or 3) increased cross-sectional area due to a weld or other factors.

D-3c Tank Management Practices (40 CFR 264.192(b))

The tank filling system operates through an automatic-manual mode, controlled by a switch at the control panel. The normal operation is automatic. As the level in one of the tanks reaches the normal fill point, which is approximately 90% of the tank volume, flow is diverted to the other tank. The level in each tank is shown by a level indicator on the front side of each tank. The operator must monitor all tank filling and record tank levels daily. The Environmental Engineer reviews the logs and schedules the shipment of material to prevent an accumulation of material beyond the storage capacity.

The tanks are equipped with high level alarms and automatic feed cut-offs. Along with an audible alarm in the Waste Treatment area that must be acknowledged, indicator lights at the control panel, Utility Center and the Security office will signal that a problem exists.

The procedures for normal transfer of wastes for bulk shipment off-site are given in Attachment D-3. When wastes

are shipped off-site from these tanks, the recordkeeping procedures are those outlined in Attachment D-1.

D-4 Tanks - Water Based Sludge Treatment Tank 1910 - Item 1

D-4a Description of Tank (40 CFR 264.191)

The location of this tank is shown in Figure D-3-1.

This 10,000 gallon tank is located in the southwest corner of the waste treatment center and is used for blending compatible water-based waste streams for more manageable off-site disposal. The wastes treated in this tank are listed in Table D-4-1, and typically have specific gravities in the range of 0.99 - 1.10. This tank typically treats 2,000 gallons per day of hazardous waste. The waste from this tank is shipped off-site for disposal in bulk or drums.

The tank was built fourth quarter 1981 and put into service second quarter 1982. The shell of this tank is carbon steel (A 515-70), 1/4" thick, and constructed in accordance with UL-142 "Standards for Steel Aboveground Tanks for Flammable and Combustible Liquids." The tank was designed for ambient temperatures and pressures, and a maximum operating level of 90%. The tank is placed on 4 - 8" x 24" H-beam steel legs over a reinforced concrete pad. Figure D-4-1 provides tank dimensions and current operating equipment associated with the tank. Figure D-4-2 is a mechanical drawing of the tank.

D-4b Tank Corrosion and Erosion (40 CFR 264.192(a))

The water-based sludge treatment tank typically treats water-based wastes which are not corrosive. Only very small amounts of corrosive wastes are managed in this tank, and these "corrosive" hazardous wastes are typically corrosive due to high pH. The tank is, therefore, not subject to excessive corrosion or erosion. Any change in the tank shell thickness would be detected during the annual tank shell thickness readings as discussed in Section F-2. The most recent tank thickness readings on the top, bottom, and sides were taken on June 17, 1985. All tank thickness readings were greater than the original specification, proving the lack of corrosion and erosion. Tank thickness readings greater than the original specification results from one of three factors: 1) paint or other exterior coating, 2) material build-up on the interior, or 3) increased cross-sectional area due to a weld or other factors.

NOT SO! WHAT'S THE PH?

?

D-4c Tank Management Practices (40 CFR 264.192(b))

This tank is used to blend compatible aqueous wastes to facilitate treatment or disposal. The majority of waste

entering this tank comes from the Aqueous Waste Treatment Tanks in the Waste Treatment Center. When the Aqueous Waste Treatment Tanks have been allowed to settle, the sludge can be pumped into the Water-Base Sludge Treatment Tank following the procedures outlined in Attachment D-5. The tank level is checked visually and recorded daily. Since additions to this tank are batch-type and require a manual set-up by the operator, a high-level detection system and automatic feed cut-off is not needed. The procedure for bulk shipment of wastes off-site are given in Attachment D-3.

When wastes are shipped off-site from this tank, the recordkeeping procedures are those outlined in Attachment D-1.

D-5 Tanks - Organic Waste Blending Tank 1462 or ST - 30 - Item 6

D-5a Description of Tank (40 CFR 264.191)

This tank is located as shown in Figure D-3-1.

This 6,000 gallon tank is located in the resin plant and is used to blend compatible organic or water-base waste streams. The tank typically treats one tank-volume per day of hazardous waste. The wastes treated in this tank are given in Table D-5-1, and typically have specific gravities in the range of .99 - 1.1. Once again, these wastes are ignitable or EP toxic in general, although small amounts of corrosive or reactive hazardous wastes may be treated.

The tank was built third quarter 1973 and put into service first quarter 1975 as a resin storage tank. It was converted to its current service in 1982. The shell of this tank is carbon steel (ASTM A285 GR "C") and was constructed in accordance with UL-142 "Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids." The tank is 1/4" thick on the sides and bottom, 5/16" thick on the top, and is placed directly on a reinforced concrete pad elevated from the floor. The equipment and tank dimensions are shown in Figure D-5-1. Figure D-5-2 is a mechanical drawing of the tank. The design standards for the tank were a maximum pressure of 5 psi in a bolted down condition, 150°F, and a maximum

liquid volume of 90%. The waste in this tank can be either transferred to the waste treatment center or, in an emergency, to drums. When transferred to the waste treatment center, the waste may go to either Organic Waste Blending Tanks 1901 and 1902 or to the Water-Based Sludge Tank 1910.

D-5b Tank Corrosion and Erosion (40 CFR 264.192(a))

This tank treats only small volumes of hazardous wastes considered reactive or corrosive. This tank is not subject to excessive amounts of corrosion or erosion. Any change in shell thickness will be detected during annual shell thickness readings as discussed as Section F-2. The most recent readings on the top and sides of the tank were collected on June 17, 1985. These tank thickness readings were all greater than the original specifications. Tank thickness readings greater than original specifications results from one of three factors: 1) paint or other exterior coating, 2) material build-up on the interior, or 3) increased cross-sectional area due to a weld or other factors.

D-5c Tank Management Practices (40 CFR 264.192(b))

This Organic Waste Blending Tank blends a number of different organic or water-based waste streams. The tank level is measured using a manometer system. This tank has an automatic high level detection system with an audible alarm in the immediate vicinity of the tank and an indicator light in the resin reactor control room. The alarm must be acknowledged at the pump manifold by an operator. The wastes leaving this tank are typically pumped to other waste management units at the Oak Creek plant. When wastes are pumped to containers and shipped off-site for disposal, the recordkeeping procedures are those outlined in Attachment D-1.

Date: 7/10/85
Revision No.: 0
D

TABLE D-1-1

WASTES MANAGED AT CONTAINER STORAGE/TREATMENT AREA ITEM 4

Water-Base Paint Waste

Wastewater Treatment Sludges

Paint Plant Caustic Sludge

Off-Site Generated Wastes

Off-Specification Products

Laboratory Paint and Resin Wastes

Date: 7/10/85
Revision No.: 0
D

TABLE D-2-1

WASTES MANAGED AT
CONTAINER STORAGE/TREATMENT AREA
ITEM 5

Water-Base Paint Waste

Solvent-Base Paint Waste

Resin Waste

Paint Plant Filter Cartridges and Bags

Resin Plant Filter Cartridges and Bags

Paint Plant Baghouse Dust

Resin Plant Baghouse Dust

Wastewater Treatment Sludges

Paint Plant Caustic Sludge

Floor Sweepings

Discarded or Spilled Raw Materials

Off-Site Generated Wastes

Off-Specification Products

Laboratory Paint and Resin Wastes

Date: 7/10/85
Revision No.: 0
D

TABLE D-3-1

WASTES TREATED IN ORGANIC WASTE BLENDING TANKS 1901 & 1902 ITEM 2 & 3

Paint Plant Dirty Solvent

Resin Plant Dirty Solvent

Solvent Recovery Still Sludge

Solvent-Based Paint Waste

Resin Waste

Discarded or Spilled Raw Materials

Off-Site Generated Wastes

Off-Specification Products

Laboratory Paint and Resin Wastes

Date: 7/10/85
Revision No.: 0
D

TABLE D-4-1

WASTES TREATED IN WATER BASE SLUDGE TREATMENT TANK 1910 ITEM 1

Water-Based Paint Waste

Paint Plant Trade Washwater

Paint Plant Industrial Washwater

Paint Plant Caustic Cleaning Water

Resin Plant Caustic Cleaning Water

Resin Plant Wastewaters

Cationic Wastewater

Wastewater Treatment Supernatant

Wastewater Treatment Sludges

Paint Plant Caustic Sludge

Off-Site Generated Wastes

Off-Specification Products

Laboratory Paint and Resin Waste

Date: 7/10/85
Revision No.: 0
D

TABLE D-5-1

HAZARDOUS WASTES TREATED IN ORGANIC WASTE BLENDING TANK 1462 OR ST-30 ITEM 6

Paint Plant Dirty Solvent

Resin Plant Dirty Solvent

Solvent Recovery Still Sludge

Solvent-Based Paint Waste

Resin Waste

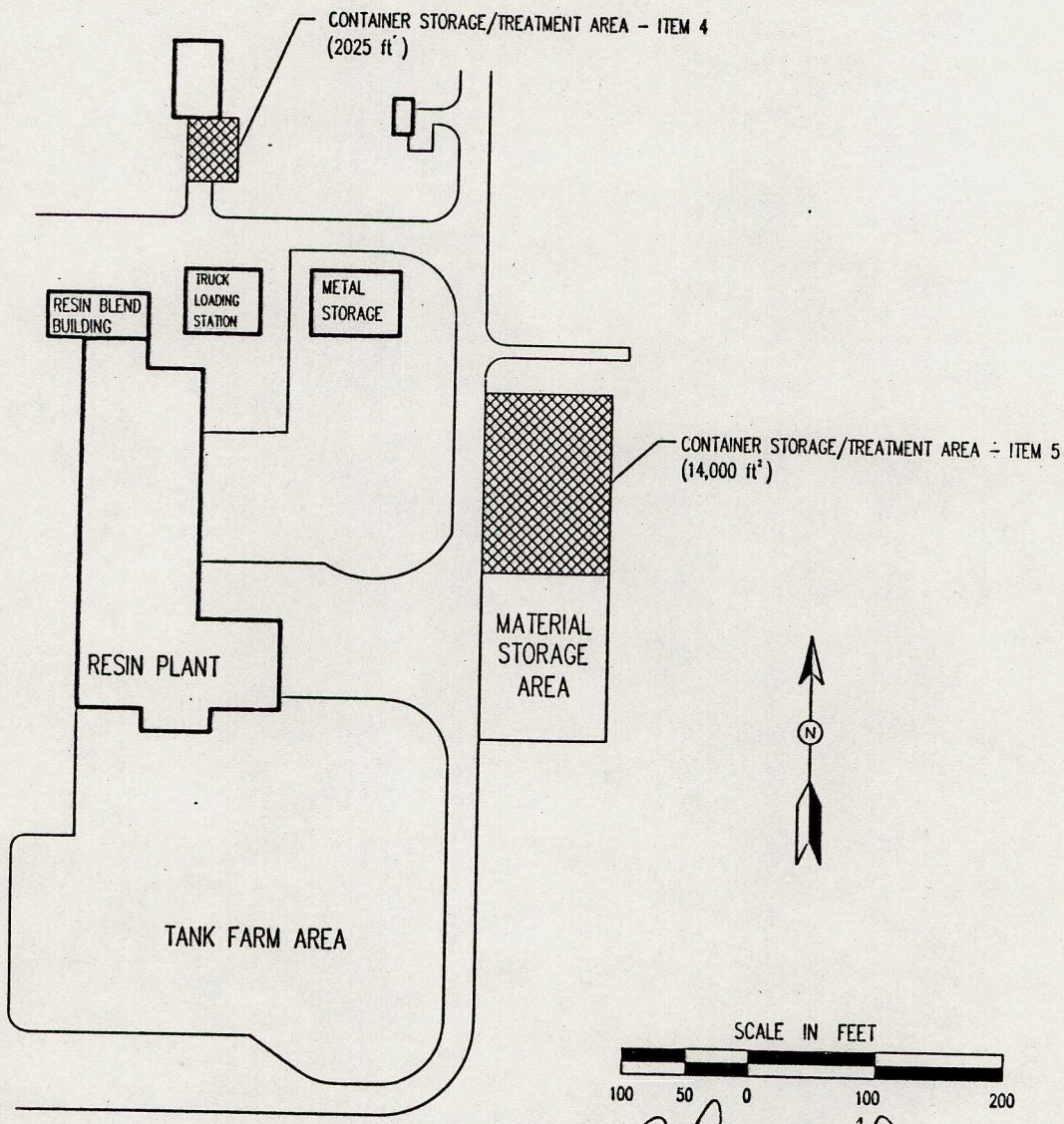
Discarded or Spilled Raw Materials

Off-Site Generated Wastes

Off-Specification Products

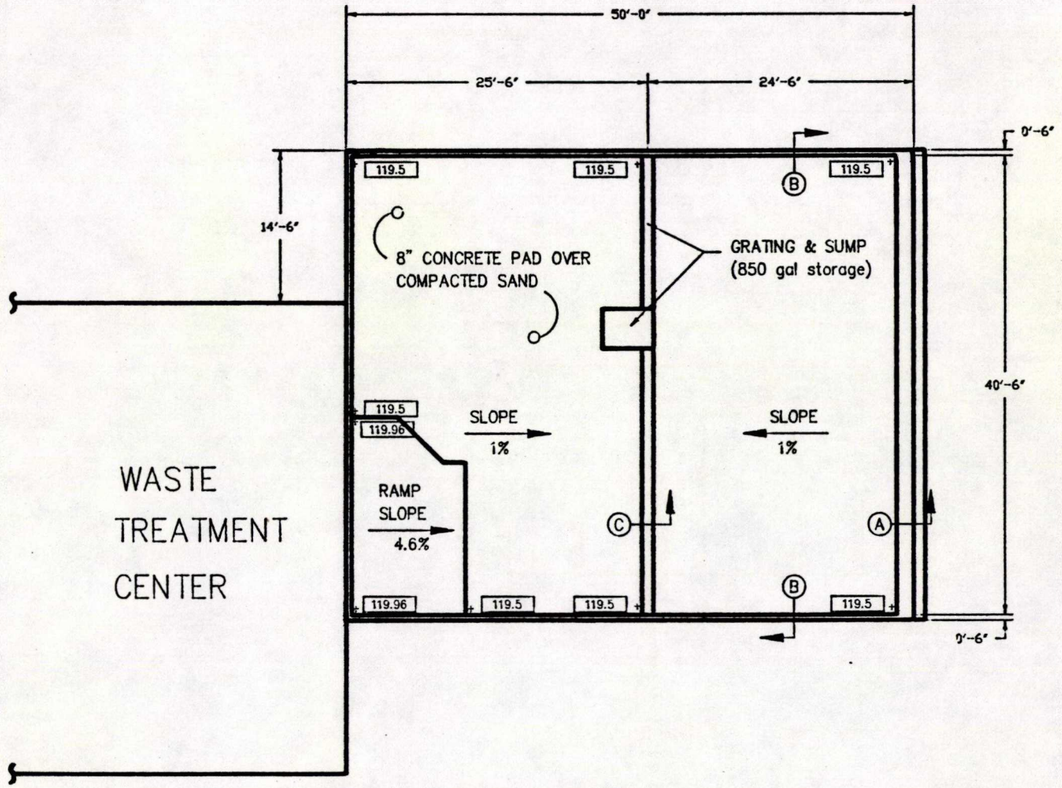
Laboratory Paint and Resin Wastes

Water-Base Paint Waste

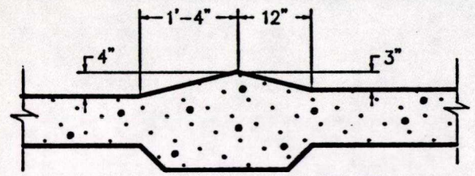


Chris A. Wath.
Wisc PE No E1599)
7/6/85

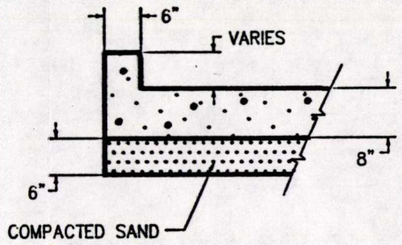
HAZARDOUS WASTE CONTAINER MANAGEMENT AREAS	FIGURE NO. D-1-1
ERM–Midwest	



SOURCE: PPG Drawing CR-7201-5154

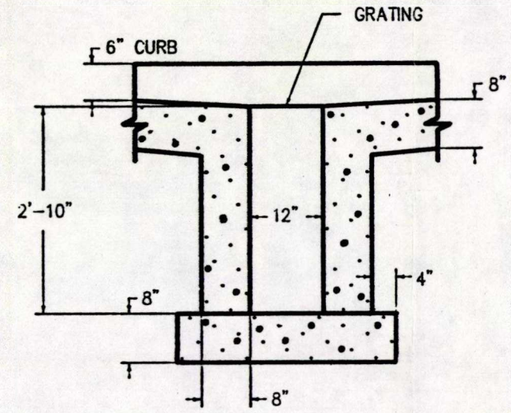


SECTION (A)



TYP. CURB & PAVEMENT

SECTION (B)

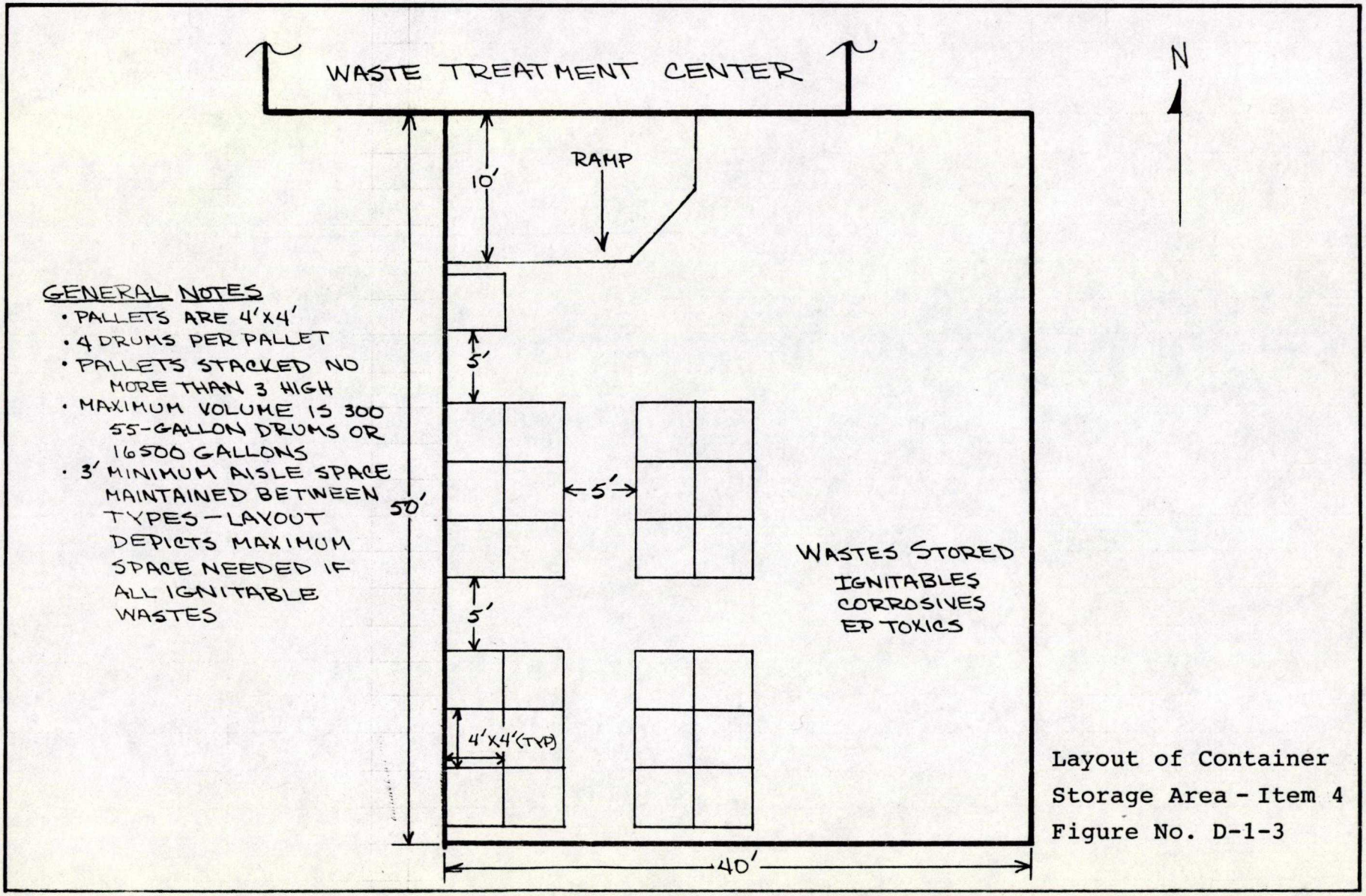


TYPICAL TRENCH

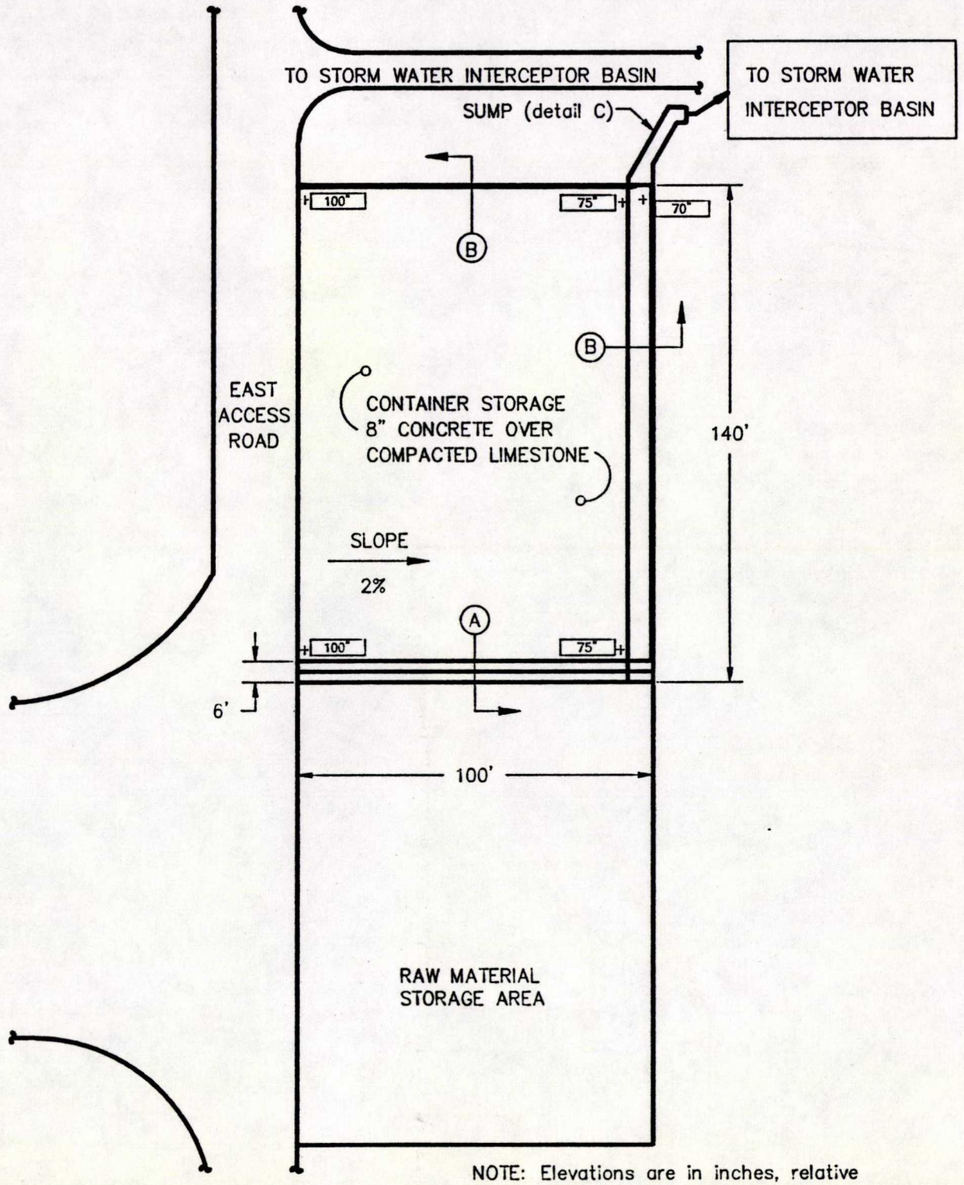
SECTION (C)

Wisc PE No E15991
7/6/85

CONTAINER STORAGE AREA ITEM - 4	FIGURE NO. D-1-2
ERM-Midwest	

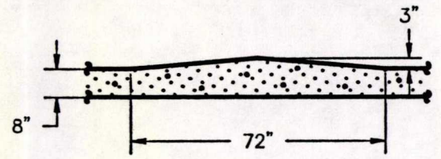


Layout of Container Storage Area - Item 4
Figure No. D-1-3

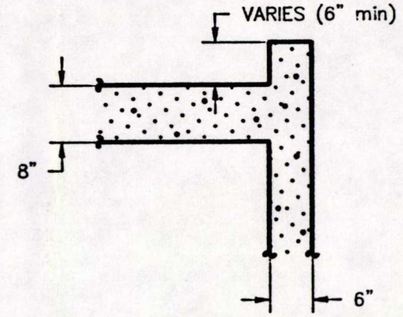


NOTE: Elevations are in inches, relative to an arbitrary point

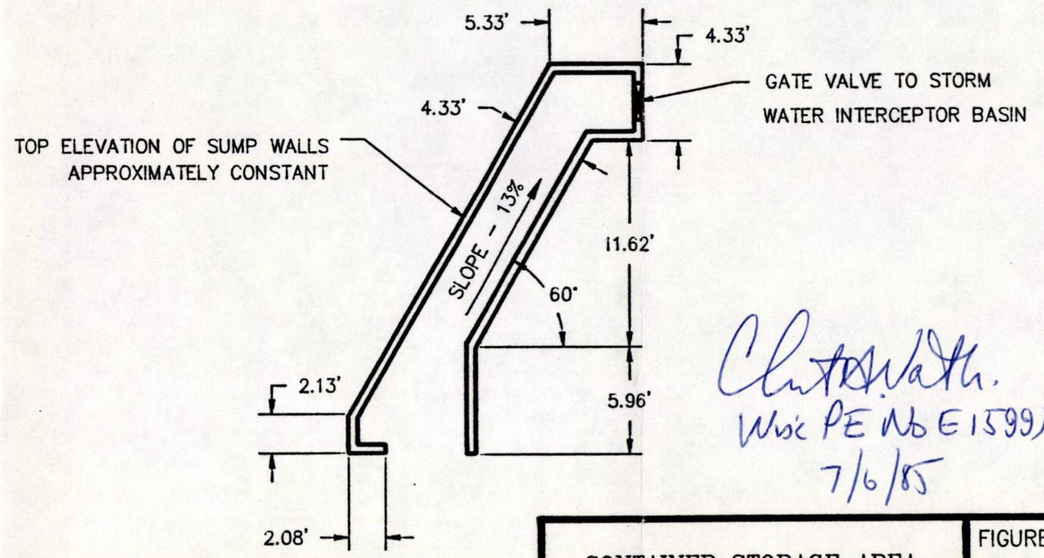
SECTION A



SECTION B



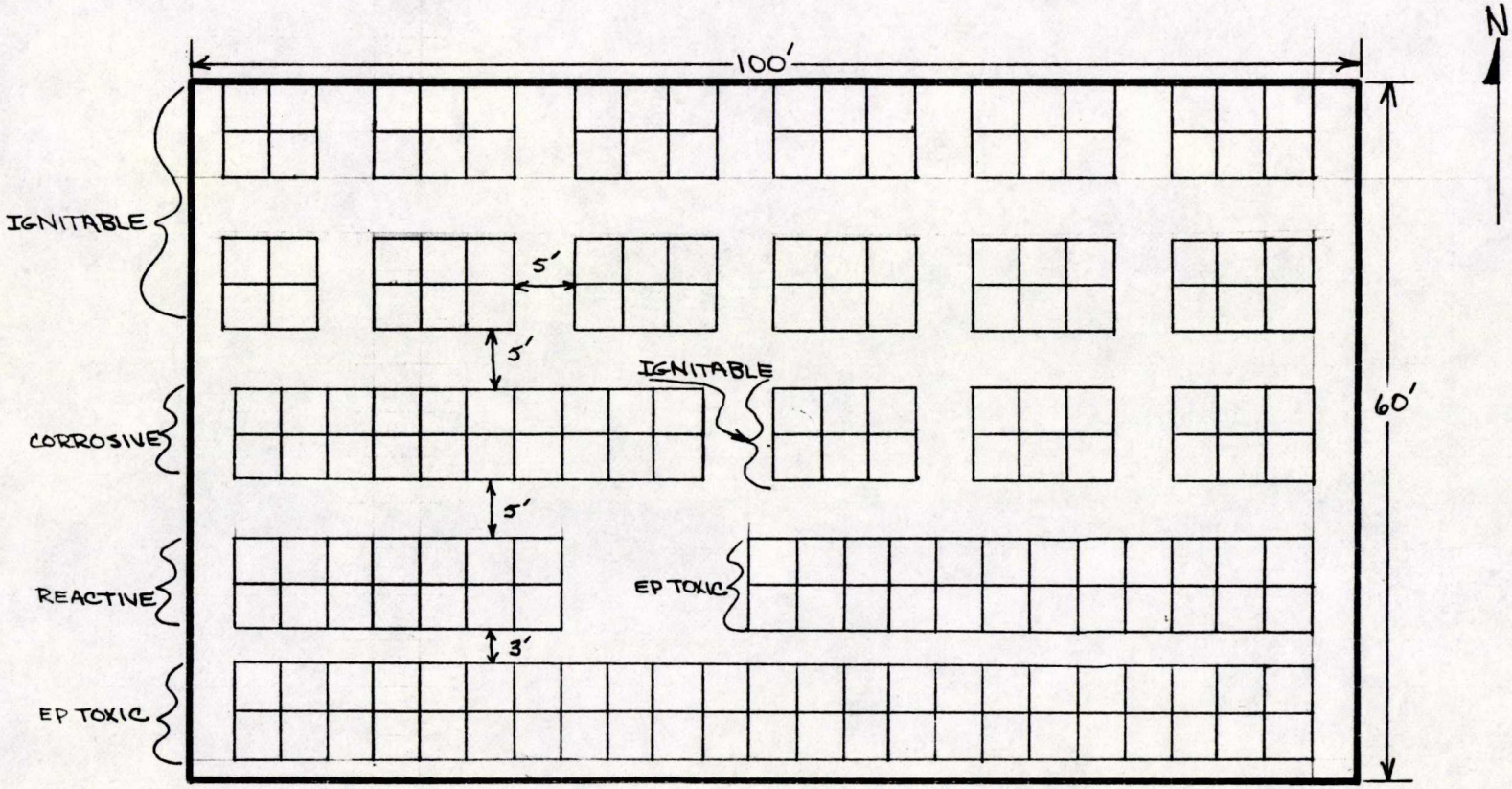
DETAIL C



SOURCE: PPG construction notes and field measurements

Clinton Wath.
Wisc PE No E15991
7/6/85

CONTAINER STORAGE AREA ITEM – 5	FIGURE NO. D–2–1
ERM–Midwest	



GENERAL NOTES

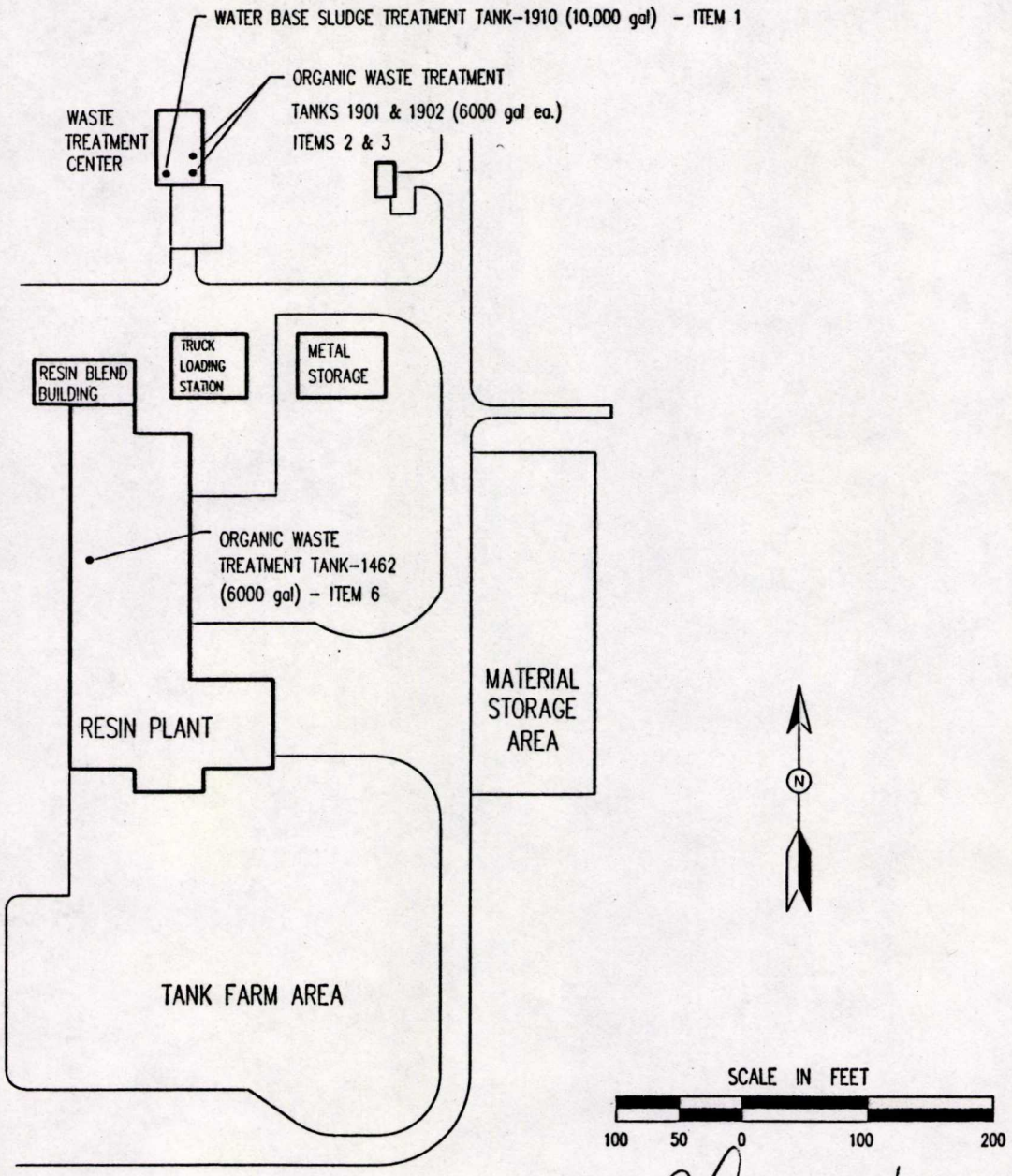
- PALLETS ARE 4' X 4'
- 4 DRUMS PER PALLET
- PALLETS STACKED NO MORE THAN 3 HIGH
- MAXIMUM VOLUME IS 2700 55-GALLON DRUMS OR 148,500 GALLONS
- 3' MINIMUM AISLE SPACE

COMMENT:

WASTES STORED ARE PREDOMINANTLY EP TOXICS AND IGNITABLES. LAYOUT DEPICTS MAXIMUM CORROSIVE AND REACTIVE WASTES THAT COULD BE STORED. AREAS SHOWN FOR THESE WILL BE USED FOR STORAGE OF EP TOXICS OR IGNITABLES, IF AVAILABLE.

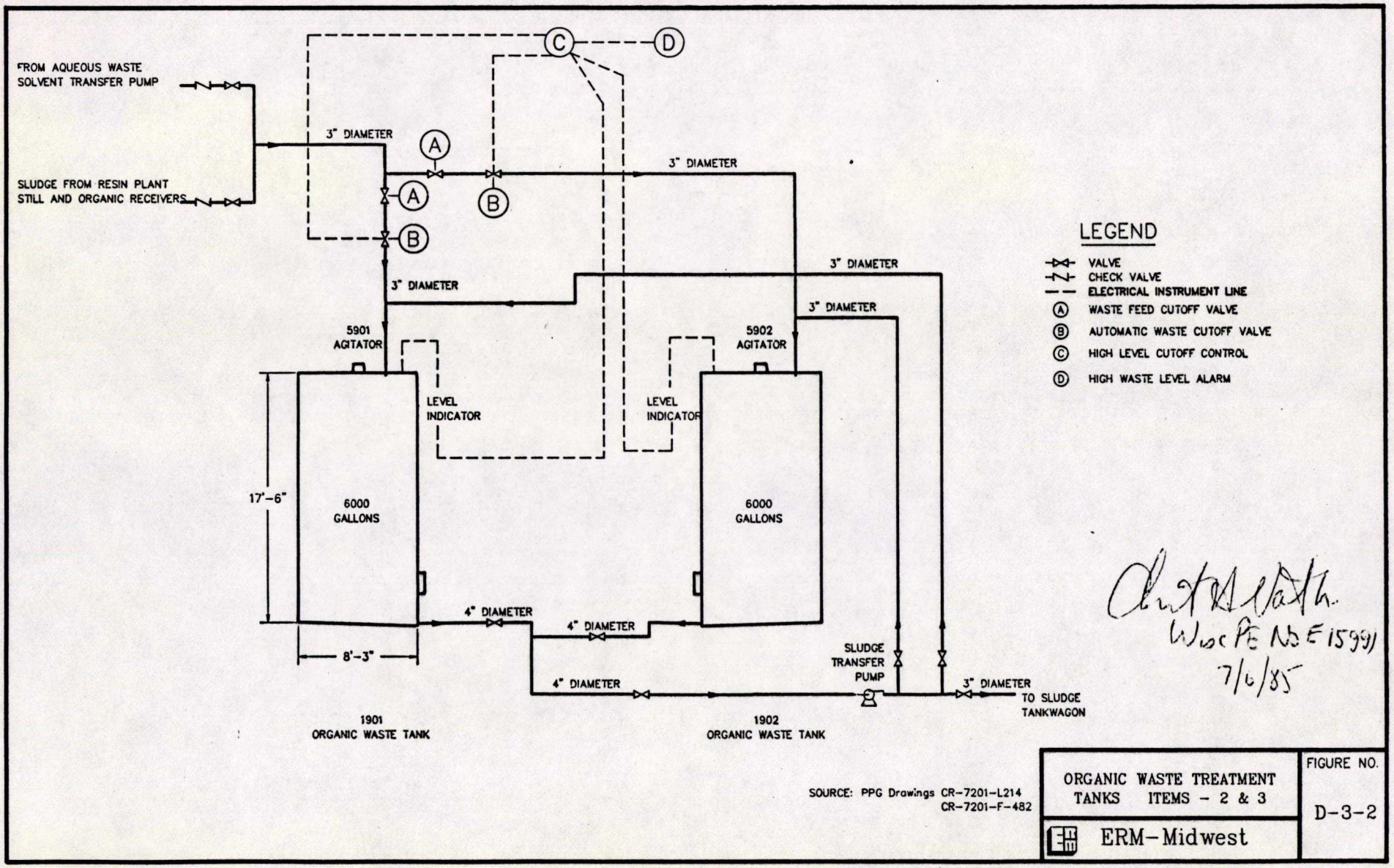
Layout of Container Storage Area - Item 5

Figure No. D-2-2



Clint A. Vath
Wisc PE No E15991
7/6/85

HAZARDOUS WASTE TANK TREATMENT AREAS	FIGURE NO. D-3-1
ERM-Midwest	



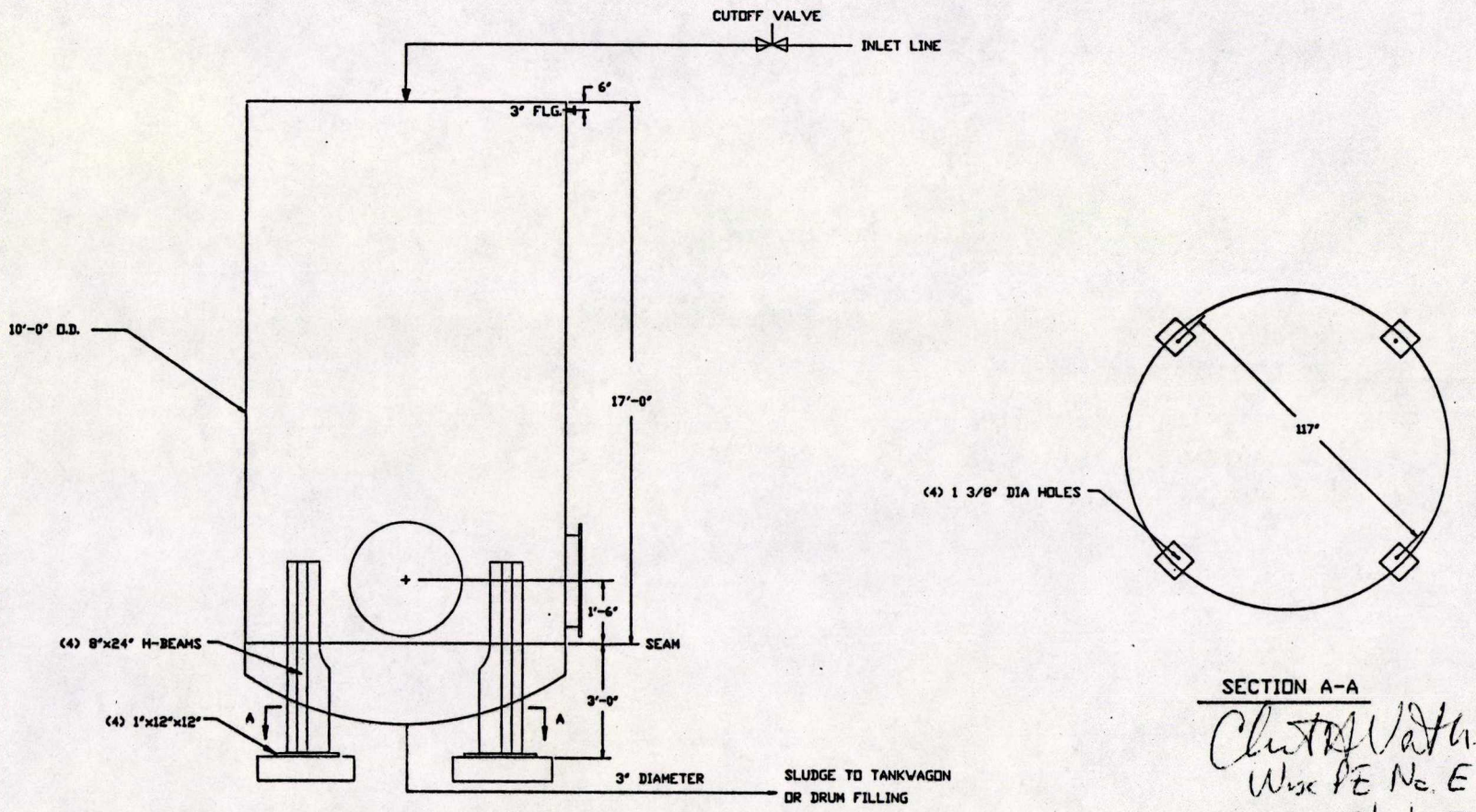
Wisc PE No E15991
7/6/85

SOURCE: PPG Drawings CR-7201-L214
CR-7201-F-482

ORGANIC WASTE TREATMENT TANKS ITEMS - 2 & 3

ERM-Midwest

FIGURE NO. D-3-2

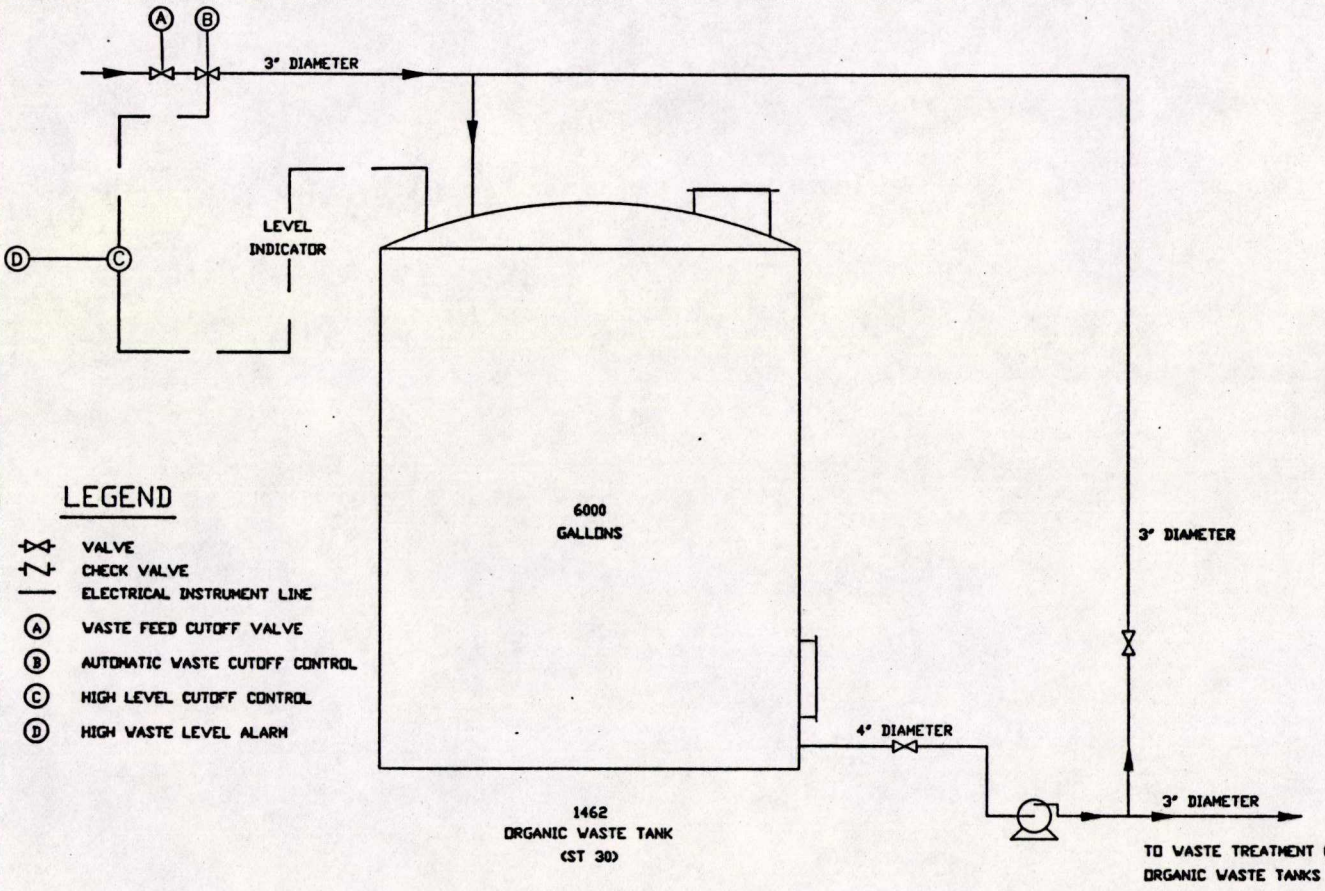


SECTION A-A

Chuck A Vath.
Wisc PE No. E15991
7/6/85

SOURCE: PPG DWG NO. 1181-20 REV. A

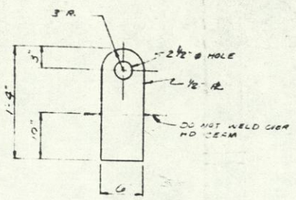
WATER BASE SLUDGE TREATMENT TANK 1910 ITEM - 1	FIGURE NO. D-4-1
ERM-Midwest	



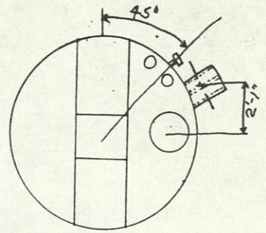
SOURCE: PPG DWG. CR-7201-L-526 and notes

Wis PE No E15991
7/6/85

ORGANIC TREATMENT TANK ST-30 ITEM - 6	FIGURE NO. D-5-1
ERM-Midwest	

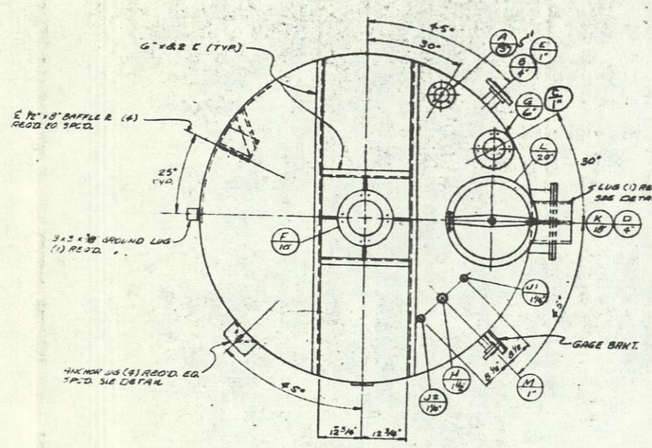


DETAIL @ LIFTING LUG
(2) REQ'D.

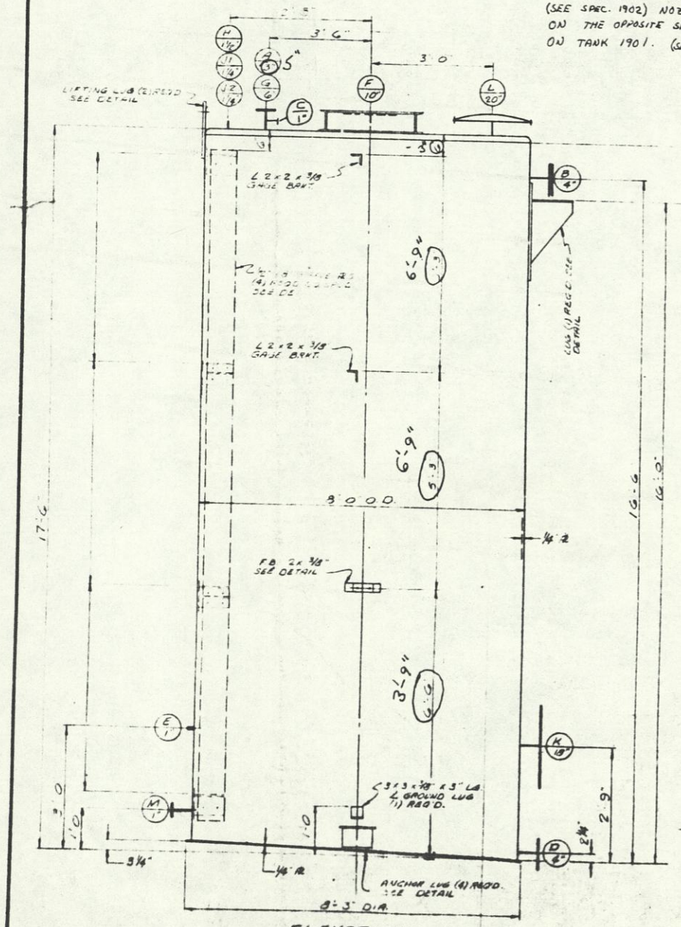


1902

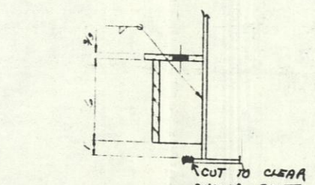
THE SUPPORT LUG ON TANK 1902 IS LOCATED IN A DIFFERENT PLACE THAN SHOWN ON THIS DRAWING. (SEE SPEC. 1902) NOZZLE "M" ON TANK 1902 IS ON THE OPPOSITE SIDE OF THE TANK AS "M" ON TANK 1901. (SEE SPEC. 1902)



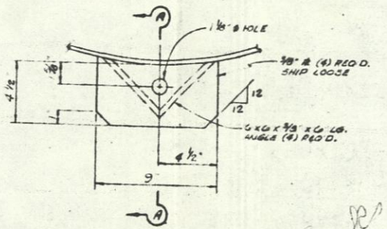
PLAN



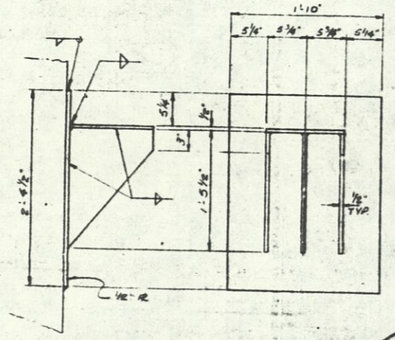
ELEVATION



SECTION A-A



DETAIL @ ANCHOR LUG
(4) REQ'D.



DETAIL @ LUG
(1) ONE REQ'D.

FULL PENET. GR. BUTT WELD

½"

Tanks 1901, 1902 ✓

M	1	1"	150#	RAISED	NOZZLE
L	1	20"			STAYTITE MW 5774
K	1	18"			SHELL MAN.
J1-J2	2	1½"	3000#	FORGED	LEVEL INDICATOR
H	1	1½"	3000#	FORGED	LEVEL INDICATOR
G	1	6"	150#	RAISED	VENT
F	1	10"	150#	RAISED	AGITATOR
E	1	1"	3000#	FORGED	FLOWR INDICATOR
D	1	6"	150#	RAISED	OUTLET
C	1	1"	3000#	FORGED	VENT GAS PURGE
B	1	6"	150#	RAISED	THERMO WELL CONT.
A	1	8"	150#	RAISED	INLET

w/ BLD. w/ INTERNAL PIPE

MARK	QUAN.	SIZE	RATING	TYPE	REMARKS

SCHEDULE OF OPENINGS

NO.	REVISION	BY	DATE

COLUMBIADAN ENGINEERS, INC.

- ☐ APPROVED
- ☒ APPROVED AS NOTED
- ☐ NOT APPROVED–RESUBMIT
- ☐

APPROVAL IS FOR GENERAL ARRANGEMENT AND LAYOUT ONLY.

BY F. Fuller DATE: 9-30-74

MFG. BY MODERN WELDING CO. INC. modern

MAX. DES. PRESS. P.S.I. AT °F
FULL VACUUM YEAR WT. LBS.
MFG'R'S NO. DRWG. NO.
CUST. NO. ITEM NO.
MAT'L SP. NO. HYDRO P.S.I.

STD. STAINLESS STEEL NAME PLATE

GENERAL NOTES

CONSTRUCTION ACCORDING TO U.L.-142
CODE SYMBOL NOT REQ'D
DESIGN PRESSURE ATMOS. PSI
DESIGN TEMP °F
JACKET DESIGN PRESSURE PSI
JACKET DESIGN TEMP °F
MAX. ALLOWABLE WORKING PRESSURE - PSI
LIMITED BY
JOINT EFF. STRESS RELIEVE
RADIOGRAPH NOT REQ'D
CORROSION ALLOWANCE NONE
VESSEL HYDROSTATIC TEST 1½# AIR W/ SOAP SUDS
JACKET HYDROSTATIC TEST
COIL HYDROSTATIC TEST
INSPECTION BY BUYER
MATERIAL SHELL SA-285-C HEADS SA-285-C
NOZZLE NECKS A-53-B PIPE A-53-B
FLANGES SA-181-1 SUPPORTS C.S. SKIRTS
BAFFLES C.S. PADS
BOLTING A-307-B NUTS A-307-B
GASKETS J.M. #91
SANDBLAST EXT. SP.6 COMM. BLAST
PAINT INT.-(1) COAT TEXACO RUSTPROOF COMPOUND 'L' EXT.(1) SHOP COAT PPG SIGMADIDE INHIBITIVE RED PRIMER #LC-38699 (3) MILS D.F.T.

ALL NOZZLES AND MANWAY BOLT HOLES TO STRADDLE NORMAL CENTER LINES OR THEIR PARALLEL LINES UNLESS OTHERWISE NOTED.

EST. WT. EMPTY 8,200 LBS.
EST. WT. FULL OF WATER LBS.
CUSTOMER STANDARDS

REF. DWGS:

SHOP NOTE:
ALL INSIDE WELDS TO BE GROUND SMOOTH
ALL FLG'D. OPENINGS TO HAVE PLYWOOD COVERS & POLYETHYLENE FILM COVERS FOR SHIPPING

APPROVED PPG INDUSTRIES

FINAL

SEE NOTE 14 UPPER LEFT SECTION OF DRAWING

CR-7201-F-482 Sheet 1 of 2

ITEM NO. 1901 (1902)	ITEMS (2) TWO

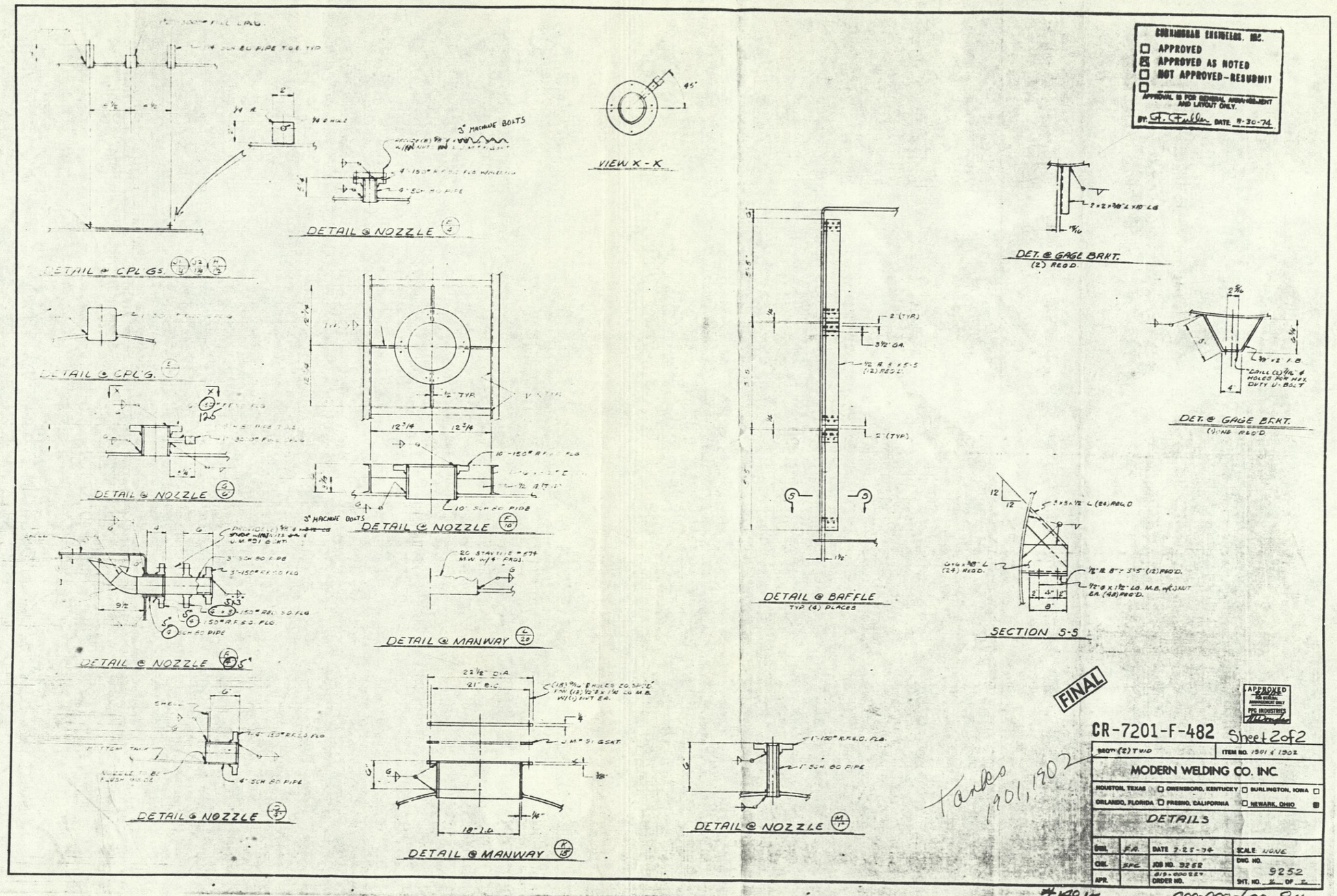
MODERN WELDING CO. INC.
HOUSTON, TEXAS ☐ OWENSBORO, KENTUCKY ☐ BURLINGTON, IOWA ☐
ORLANDO, FLORIDA ☐ FRESNO, CALIFORNIA ☐ NEWARK, OHIO ■

PPG INDUSTRIES INC.
61'-0" O.D. x 17'-6" S.T.L. SHELL ORGANIC WASTE TANK

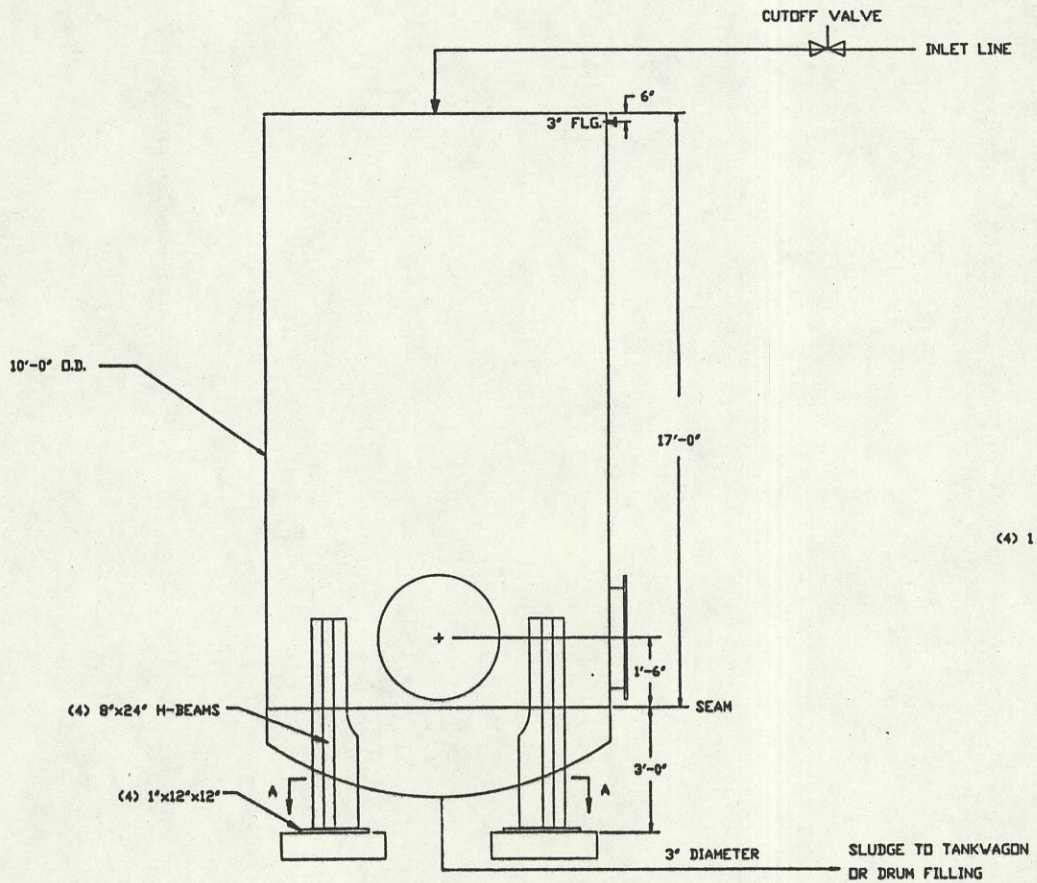
DES.	F.A.	DATE 7-26-74	SCALE: NONE
CHK.	S.F.C.	JOB NO. 9252	DWG. NO. 9252
APP.		513-000887 ORDER NO.	SHT. NO. 1 OF 2

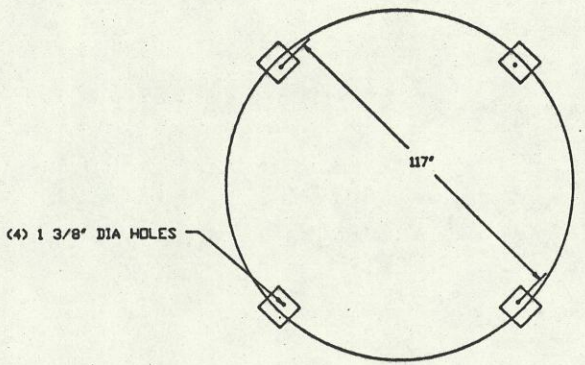
14814

000-000-600-E



CUNNINGHAM ENGINEERS, INC.
APPROVED
APPROVED AS NOTED
NOT APPROVED-RESUBMIT
APPROVAL IS FOR GENERAL ARRANGEMENT AND LAYOUT ONLY.
BY: F. Fuller DATE: 8-30-74
DETAIL @ CPL'GS.
DETAIL @ NOZZLE
VIEW X-X
DETAIL @ CPL'G.
DETAIL @ NOZZLE
DETAIL @ NOZZLE
DETAIL @ NOZZLE
DETAIL @ MANWAY
DETAIL @ NOZZLE
DETAIL @ MANWAY
DETAIL @ BAFFLE
TYP. (4) PLACES
DET. @ GAGE BRKT.
(2) REQ'D.
DET. @ GAGE BRKT.
(1) ONE REQ'D.
SECTION S-S
FINAL
APPROVED FOR GENERAL ARRANGEMENT ONLY
PPG INDUSTRIES
CR-7201-F-482
Sheet 2 of 2
REQ'D (2) TWO
ITEM NO. 1901 & 1902
MODERN WELDING CO. INC.
HOUSTON, TEXAS
OWENSBORO, KENTUCKY
BURLINGTON, IOWA
ORLANDO, FLORIDA
FRESNO, CALIFORNIA
NEWARK, OHIO
DETAILS
DWN. F.A.
DATE 7-25-74
SCALE NONE
CHK. SFC
JOB NO. 9252
DWG NO. 9252
APR.
ORDER NO.
SHT. NO. 2 OF 2
Tanks 1901, 1902
#14815
000-000-600-811



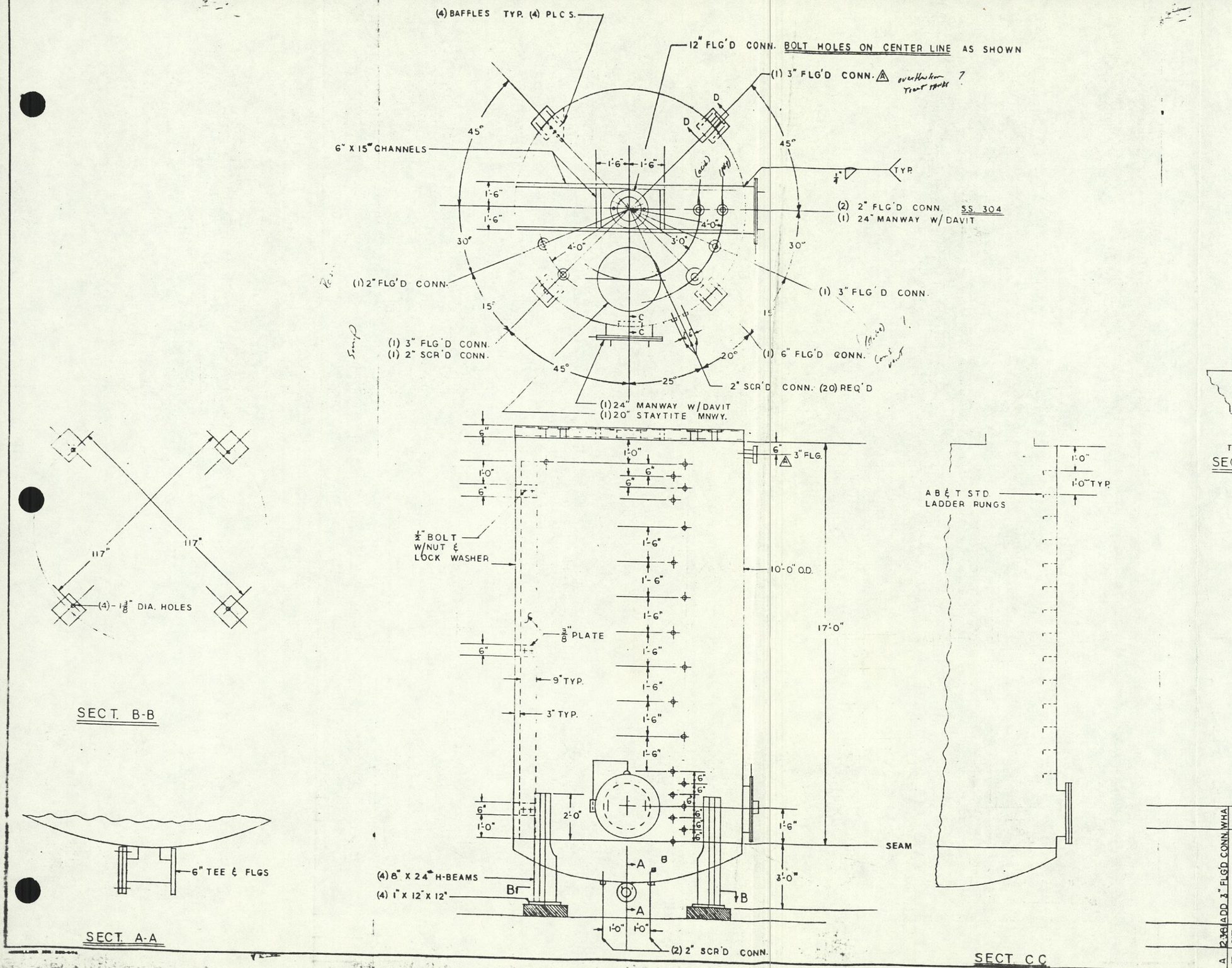


SECTION A-A

Clint A Vath.
Wisc PE No. E15991
7/1/85

SOURCE: PPG DWG NO. 1181-20 REV. A

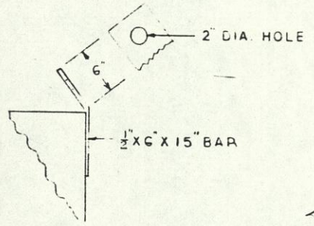
WATER BASE SLUDGE TREATMENT TANK 1910 ITEM - 1	FIGURE NO. D-4-1
ERM-Midwest	



SECT. B-B

SECT. A-A

SECT. C-C



SECT. D-D

Tank 1910.

NAT'L BD.

NAT'L BD. SER. NO.

MFG. BY

ADVANCE BOILER & TANK CO.

W DIV I MILWAUKEE, WIS.

MAX. WKG. PRESS. -20 TO 650°F		PSIG.
HEAD RAD.	X-RAY	
HEAD TH.	MFR'S. SER. NO.	
SHELL TH.	YEAR BUILT	19

ALL MATERIAL C.S. EXCEPT AS SHOWN

FOLLOWING SPECIFICATIONS APPLY EXCEPT AS NOTED ON DRAWING

CONSTRUCTION	NON CODE	DP	1 PSIG	DT	AMBIENT
X-RAY		HT		MAG. PART	DYE CHECK
CUST. SPEC. CORR. ALL.		STATE REQ.			
HEADS	THICK .25"	DR 114#	ICR 7.25"	ELL RATIO	MAT. SA285
SHELLS	THICK .25"	MAT. SA 515-70			
FLANGES	TYPE RFSO	CLASS 150#		MAT. SA105 OR 304 SS	
WELD FITTINGS	TYPE	CLASS		MAT.	
PAD FLGS	TYPE	BOLTING		MAT.	THK
CPLGS.	TYPE SCR'D	CLASS 3000#		HALF. CPLGS	
PIPE	SCH. 40	MAT. SA120 OR BETTER OR 304 SS			
MAN.H.	x x x			RING MAT.	COVER MAT
HAND.H.	x x x			RING	COVER
RD. M.H.	PIPE MAT. SA 515-70	RING & FLG. MAT. SA515-70		BOLTING SA 307	
BOLTS	MAT. SA307				
STUDS	MAT.				
WLD.FLGS.	MAT.	TYPE			
NOZZLE REINF. PADS		MAT.		THICK	
HEAD TO SHELL JT. (A)	TAPER	REV IN	GAP	REV OUT	LAND
				JOGGLE	CHILL RING
HEAD TO SHELL JT. (B)	TAPER	REV IN	GAP	REV OUT	LAND
				JOGGLE	CHILL RING
SHELL TO SHELL JT.		REV IN	GAP	REV OUT	LAND
NOZZLE RECESS		2 1/2 T		FLUSH NO BEVELING	
FINISH	IN CLEAN	OUT ROP			
MFG'S SERIAL NO'S					
NAT. BD. NO'S					

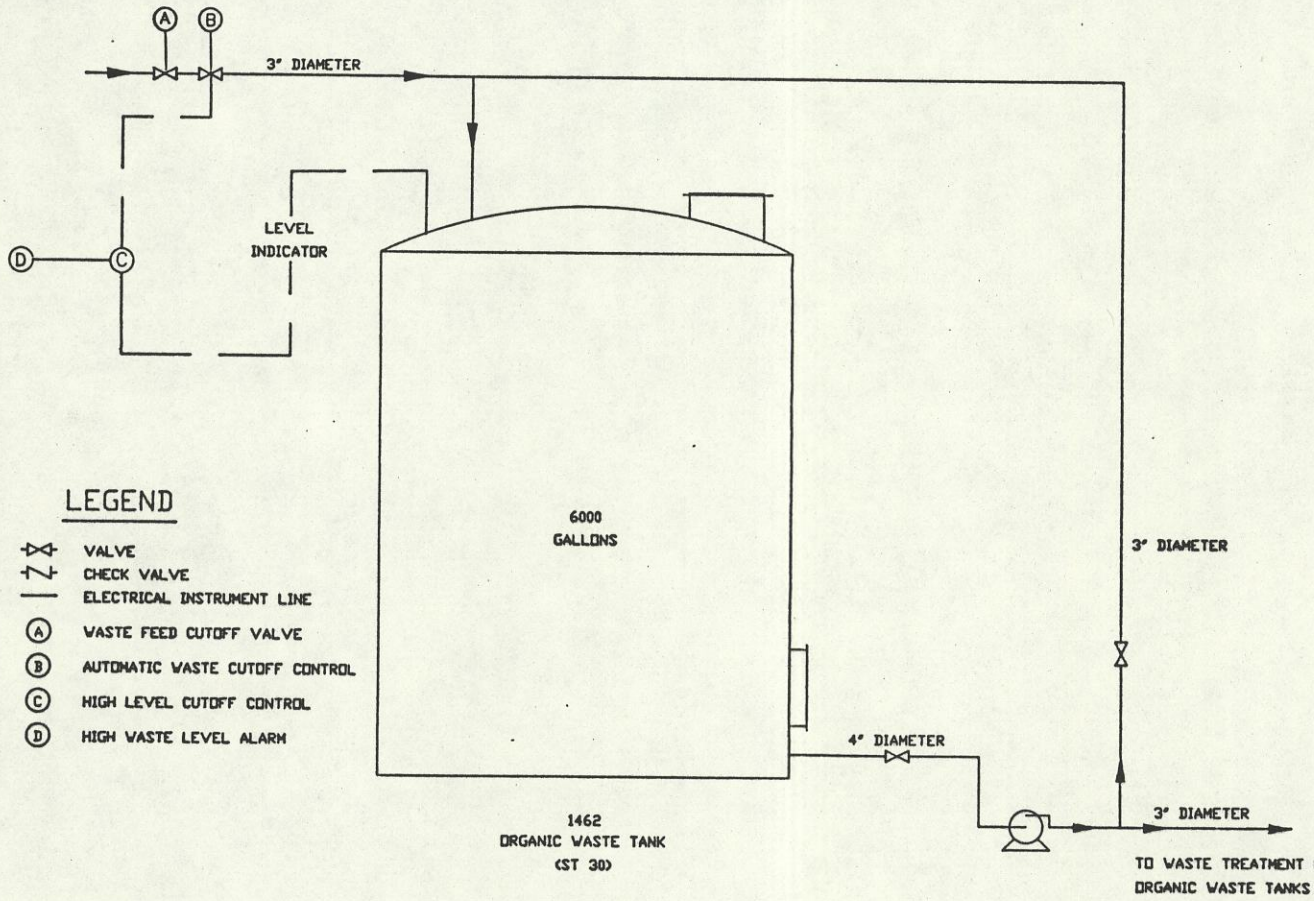
ADVANCE BOILER & TANK CO.

1711 S. CARFERRY DRIVE

JONES ISLAND — MILWAUKEE, WIS. 53207

CUSTOMER P.P.G.		PROJECT # P.O. 20938	
DESCRIPTION STORAGE TANK			NO REQ'D 1
SCALE NTS	DATE 11-16-81	JOB NO. 1181-20	SHEET 1 OF 1
DWN WHA		DRAWING NO. 1181-20	REV. A
CHK			

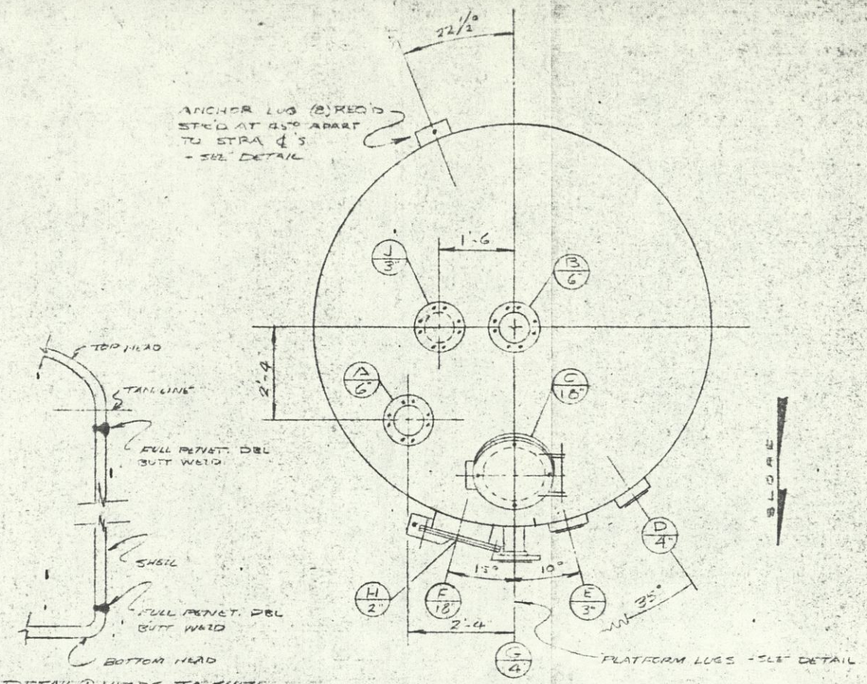
A 2-3-81 ADD 3" FLG'D CONN. WHA

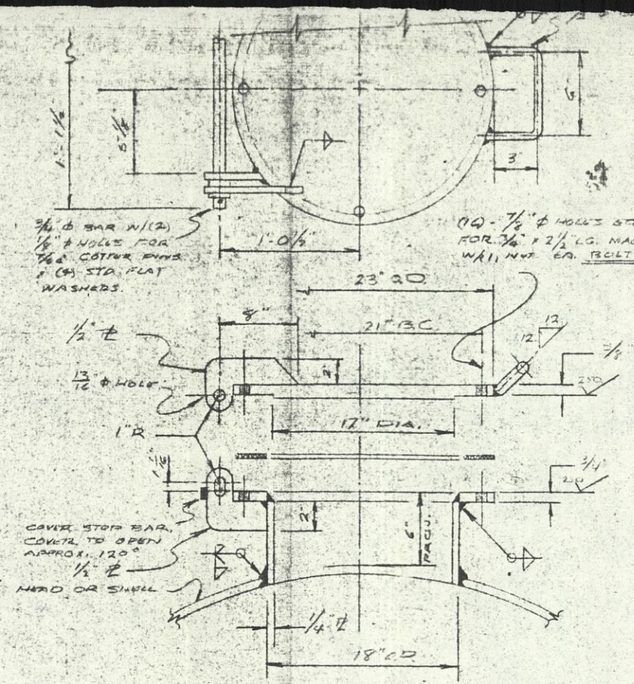


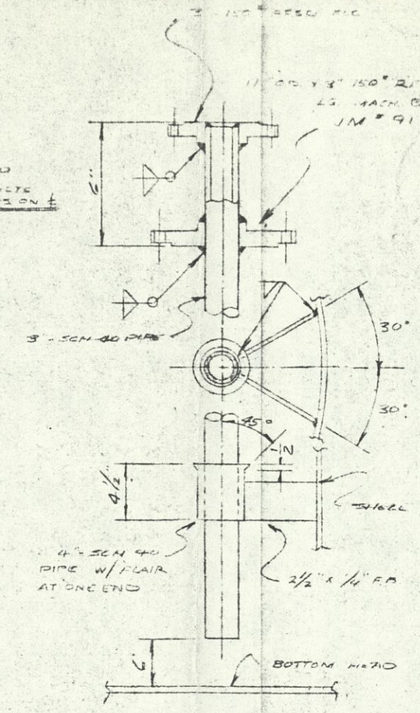
SOURCE: PPG DWG. CR-7201-L-526 and notes

Clint A Wath
Wisc PE No E15991
7/6/85

ORGANIC TREATMENT TANK ST-30 ITEM - 6	FIGURE NO. D-5-1
ERM-Midwest	







MFG. BY MODERN WELDING CO. INC.	
MAX. DES. PRESS.	P.S.I. AT °F
FULL VACUUM	YEAR WT. LBS.
MFG'S NO.	DWG. NO.
CUST. NO.	ITEM NO.
NAT'L. BD. NO.	HYDRO P.S.I.

STD. STAINLESS STEEL NAME PLATE

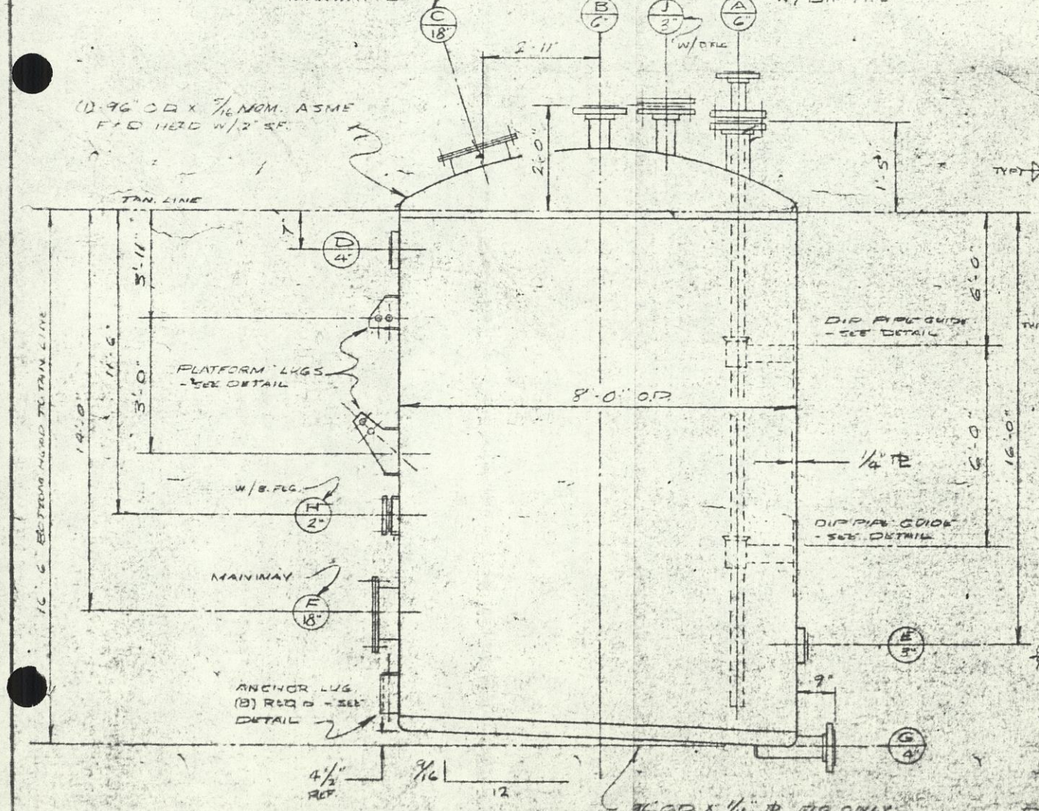
GENERAL NOTES

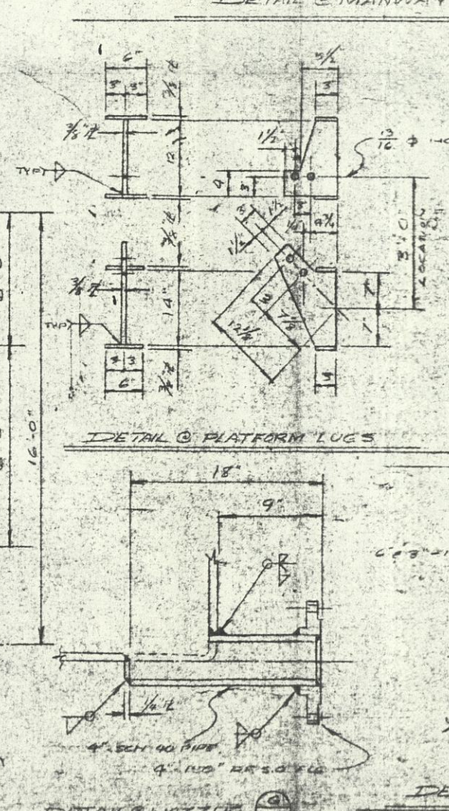
MAX. ALLOWABLE (EXT.) PRESSURE	4 OZ. AT 150° F
CONSTRUCTION ACCORDING TO:	ASME WELDING ONLY
CODE SYMBOL	IS NOT REQ'D
DESIGN PRESSURE	5 PSI IN EXCESS DOWN CON
DESIGN TEMP.	150 °F
JACKET DESIGN PRESSURE	PSI
JACKET DESIGN TEMP.	°F
MAX. ALLOWABLE WORKING PRESSURE	PSI
LIMITED BY	
JOINT EFF.	STRESS RELIEVE NOT REQ'D
RADIOGRAPH	NOT REQ'D
CORROSION ALLOWANCE	1/8 HEADS & SHELL
VESSEL HYDROSTATIC TEST	1½ PSI AIR W/ HEAD & WATER
JACKET HYDROSTATIC TEST	
COIL HYDROSTATIC TEST	
INSPECTION BY	BUYER
MATERIAL SHELL	SA-285-C HEADS SA-285-C
NOZZLE NECKS	C-S PIPE C-S
FLANGES	C-S SUPPORTS C-S SKIRTS
BAFFLES	PADS
BOLTING	SA-325 NUTS
GASKETS	JM "91
SANDBLAST	NONE
PAINT	OUTSIDE ONE SHOP COAT OF PPG SPEEDHIDE IN-R4 PRIMER.

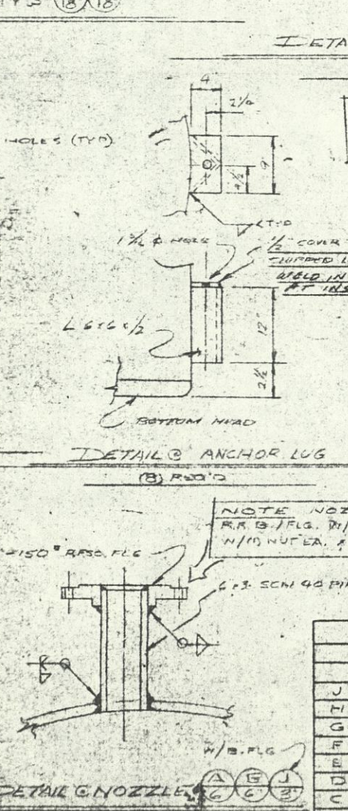
ALL NOZZLES AND MANWAY BOLT HOLES TO STRADDLE NORMAL CENTER LINES OR THEIR PARALLEL LINES UNLESS OTHERWISE NOTED.

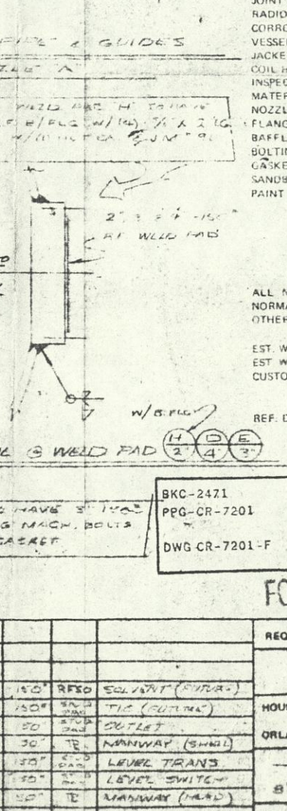
EST. WT. EMPTY 6200 LBS.
EST. WT. FULL OF WATER LBS.
CUSTOMER STANDARDS

REF. DWGS:









BKC-2471
PPG-CR-7201
DWG CR-7201-F 618

THIS IS TO CERTIFY THAT THIS IS A TRUE COPY OF ITEM WILL BE FABRICATED

FOR FABRICATION JUL 19

MARK	REQ'D	SIZE	RATING	TYPE	REMARKS
J	1	3"	150#	RFSO	SOLVENT (OUTLET)
H	1	2"	150#	SO. SW. SOCK.	TIC (OUTLET)
G	1	4"	150	STUD. SOCK.	OUTLET
F	1	18"	150	TE	MANWAY (SHELL)
E	1	3"	150#	SO. SOCK.	LEVEL TRANS
D	1	4"	150#	SO. SOCK.	LEVEL SWITCH
C	1	18"	150#	TE	MANWAY (HEAD)
B	1	6"	150#	RFSO	VENT
A	1	6"	150#	RFSO	INLET W/3" OUTLET

REQ'D (3) THREE — ITEM NO. 1459, 61, 62

MODERN WELDING CO., INC.

HOUSTON, TEXAS ☐ OWENSBORO, KENTUCKY ☐ BURLINGTON, IOWA ☐
ORLANDO, FLORIDA ☐ FRESNO, CALIFORNIA ☐ NEWARK, OHIO ☑

BLAW-KNOX

8'-6" OD x 16'-6" MIN. STORAGE TANK

DWN.	J.DW	DATE	6-26-78	SCALE: NONE
CHK.	MD	JOB NO.	9126	DWG. NO. 9100

ATTACHMENT D-1

RECORDKEEPING PROCEDURES

ATTACHMENT D-1

RECORDKEEPING PROCEDURES

In order to effectively manage all hazardous waste handled and stored at the PPG Oak Creek Plant, a comprehensive hazardous waste information and recordkeeping system has been established. The overall program provides for the following, which are required under RCRA regulations.

- A manifest system.
- Recordkeeping procedures.
- Procedures for reporting to EPA.

The following describe the movement of hazardous waste through the facility and specifies how information on the waste is generated and filed.

1. Materials generated at the facility are determined to be a hazardous waste by the Environmental Engineer.

   The Environmental Engineer bases his judgment on his best professional knowledge or on the results of testing or waste analysis.

2. The Environmental Engineer files a copy of the test report, if any, and a copy of the Quarterly Hazardous Waste Management Report in the Operating Record.

   Separate storage reports are prepared for hazardous waste from each generation location.

3. When quantities, characteristics, or hazardous waste generating processes change, the Environmental Engineer will be notified. The Environmental Engineer will make all necessary or appropriate changes in management practices or environmental permits.

4. The Environmental Engineer and waste treatment operators are responsible for preparing wastes for shipping.

   Special procedures, as required under the regulations for packaging, labeling, marking are followed according to 40 CFR 260.30 through 262.33 as well as 49 CFR 100 through 199.

   Placarding is handled by the Shipping Department.

ATTACHMENT D-1
(Continued)

RECORDKEEPING PROCEDURES

5. The Environmental Engineer oversees preparation of the manifest, and files a copy for recordkeeping purposes.

6. Shipping documents are prepared and filed and the completed manifest is distributed by the Plant Shipping and Receiving Department.

7. If no manifest is received 30 days after hazardous waste is removed from the plant, the Environmental Engineer or his designee contacts the operator of the treatment/storage/disposal (TSD) facility and sometimes the transporter.

   The purpose of the call is to determine whether or not the wastes were received at the TSD facility.

8. If the fate of the hazardous waste is not resolved in 45 days, the Environmental Engineer submits an Exception Report to the Wisconsin Department of Natural Resources.

   This report will include a copy of the appropriate manifest and a cover letter explaining efforts taken to locate the hazardous waste.

9. If the fate of the hazardous waste is resolved. the Environmental Engineer places the appropriate information in the file.

   All information on wastes received at TSD facilities, and for which signed manifests have been received at the facility, are placed and stored in the file.

Responsibility for maintaining the waste and permit files is given to the Environmental Engineer. Three separate files are maintained: one for wastes on site, a second "pending" file for wastes that have left the site but for which no signed manifests have been received from the TSD facility, and a third "closed" file for wastes that have been accepted in writing by TSD facilities.

Complete records for all hazardous wastes handled at the facility are included in the Operating Records for the facility.

ATTACHMENT D-2

FULL TANK PROCEDURES

ATTACHMENT D-2

FULL TANK PROCEDURES

After a "full" tank alarm has sounded, the first responsibility of the operator is to acknowledge the alarm by pushing the "acknowledge" button on the control panel.

The horn will be silenced, but the alarm light will stay lighted until the cause of the alarm is cleared. If the adjacent tank has available capacity (check its level) and the valve has not automatically diverted, the operator will manually divert the inlet flow, with the appropriate switch on the control panel, to the tank with available capacity. If the other tank is already filled, he will take the following actions:

1. Notify the Environmental Engineer of the condition.

2. Notify the resin plant Supervisor or Engineer by telephone to discontinue transferring organic wastes to storage at the waste treatment center.

During off-shifts, a "high level" condition in either or both organic storage tanks is also announced in the utility center as a waste treatment problem.

The utility center attendant will immediately respond to the alarm in the waste treatment area by following the procedure outlined previously for the operator. A high-level condition is also announced at the guardhouse panel as a utility center problem. If the alarm is not immediately acknowledged, the guard will notify the utility center attendant that a problem exists.

ATTACHMENT D-3

BULK WASTE TRANSFER PROCEDURES

ATTACHMENT D-3

BULK WASTE TRANSFER PROCEDURES

1. Open the manually operated valves to the transfer pump, located just in front of the collection tanks. Two valves are to be opened. One at the chosen tank, the other on the pump suction port.

2. Open the outlet valves to allow tank-wagon filling. This valve is located on the outlet side of the transfer pump.

3. Attach the ground cable to the tank-wagon. This cable is located on the platform and is equipped with a spring clip for easy attachment.

4. At the tank-wagon loading station (outdoors), insert the filling arm (counterweighted, pivotal) through the tank-wagon top opening.

5. Open the valve just ahead of the filling arm. This opens the line for the filling operation.

6. Return indoors to start the transfer pump. The pump control switch is located on the control panel.

7. Tank wagons will vary in capacity. The operator must monitor the filling to prevent overfilling of the tank-wagon.

8. When the tank-wagon is "filled", shut off the pump. Shut off the valve on the tank outlet.

9. Connect the inert gas line quick coupler to the quick connector on the outlet side of the transfer pump. Clear the line to the tank-wagon with inert gas until this line is clear. Shut off the inert gas flow. Disconnect the inert gas line. Re-position the inert gas hose on hose rack.
10. Close all valves (3) on the line to the tank-wagon.

ATTACHMENT D-3
(Continued)

BULK WASTE TRANSFER PROCEDURES

11. Re-tract the filler hose from the tank-wagon opening.

12. Close the tank-wagon man-way opening cover.

13. Disconnect ground connection.

ATTACHMENT D-4

SMALL WASTE LOT PUMPING

ATTACHMENT D-4

SMALL WASTE LOT PUMPING

Small lots of wastes can be managed by pumping to the treatment tanks. Sequentially, the operation is as follows:

1. Bring the materials to be disposed and locate close to the transfer pump. Open the container to be emptied.

2. Attach ground cable to this container.

3. Insert the withdrawal wand. Attach the transfer hose from the withdrawal wand to the suction side connector in the transfer pump. The hose is equipped with a complementary quick connector on each end. Open the suction side valves. Open the destination valves (choice of three: two tanks or the tank wagon). The container contents are then transferred by switching the pump on.

4. The operator must carefully monitor this operation since there is no over-riding control to prevent unnecessary pump operation.

5. After pumping last drum, repeat previously described line clearing operation. Replace the inert gas hose on its reel.

6. When the drums have been emptied, they are removed.

Alternatively, small lots of wastes can be pumped directly into tank-wagons for bulk shipment off-site. The operation is as described above.

ATTACHMENT D-5

AQUEOUS SLUDGE TRANSFER PROCEDURES

ATTACHMENT D-5

AQUEOUS SLUDGE TRANSFER PROCEDURES

When a Wastewater Treatment Tank is empty, except for sludge, the operator has the option of receiving new waste in the tank, or removing the sludge from the tank. The sludge removed from the Aqueous Waste Treatment Tank is pumped into the Water Base Sludge Treatment Tank 1910. The procedure for removing the sludge is as follows:

1. The wastewater treatment tank agitator should be running.

2. Connect a hose to the bottom valve of the wastewater tank which contains the sludge. Then connect the other end of the hose to the inlet line of the Roper progressive cavity sludge pump.

3. Connect a hose from the outlet of the sludge pump to the fill line of the sludge storage tank, 1910.

4. Plug in the pump and open all appropriate valves on the tanks and the pump.

5. Turn the pump on. The control switches are located on the pump.

6. Adjust the variable speed control so that the pump is pumping at a reasonable rate. Never adjust the variable speed control when the pump is not operating.

7. When all the sludge is removed from the waste tank, the pump should be flushed with water and turned off. The pump should never be allowed to run when no liquid is going through it.

8. All valves on the tank and the pump should be closed, and the hoses disconnected.

US EPA RECORDS CENTER REGION 5
1009767

SECTION E

GROUND WATER MONITORING

Since PPG does not dispose of hazardous waste on the site, and since all hazardous waste management is done in containers or tanks, this section is not applicable.

SECTION F

PROCEDURES TO PREVENT HAZARDS

F-1 Security

F-1a Security Procedures and Equipment (40 CFR 264.14)

In addition to the general security provisions of fencing, gates, and security personnel, a number of other features contribute to the safety and security of the Oak Creek Plant. Employees have immediate access to alarms, telephones, and/or radio communication equipment. The Oak Creek Plant is supplied with an alarm system, a public address system, and an internal telephone system. The same telephone system can be used for communications outside the plant.

Visitor Policy

Employees are required to carry identification cards when on PPG property. All plant entries are monitored by security guards or by electronic means (see below). Only persons

with the proper identification are allowed to enter onto the property.

All visitors to the PPG Oak Creek Plant enter through the visitor's entrance on the west side of the office building. Upon entry, the visitor will be asked to state his/her business and the PPG employee they wish to visit. All visitors must sign in and be issued a visitors pass. The PPG employee or his representative will meet the visitor in the lobby and escort the visitor to the area being visited. Visitors are always escorted. After the visit, the visitor will be escorted back to the lobby. The host is responsible for the visitor's actions.

Visitors entering the hazardous waste management areas are required to wear hard hats and safety glasses. It will be the responsibility of the escorting PPG employee to obtain the protective equipment from the receptionist or the safety office, ensure that the visitor wears the equipment, and to return the protective equipment to its proper location. Truck drivers stay in their cabs if they do not have the proper equipment.

Except for purposes of pick-up or delivery, no off-site vehicles will be permitted inside the fence. Vehicle entry will be through the south gate and controlled by the guard.

There should be little reason for visitors to enter the plant outside of normal day-time working hours. If after-hours or week-end visits should be necessary, the procedure will be similar to the procedure for normal visitors or sales/service visitors except that sign in and pass issuing will be performed by the guard at the employees' entrance. Service people doing work after hours will only be required to sign in and out. Emergency personnel such as police, fire, or medical personnel will, of course, be exempt from all provisions of these visitors' policies if entering the plant in response to an emergency.

F-1a(1) 24-Hour Surveillance System
(40 CFR 264.14(b)(1))

Trained security guards are on-site at the Oak Creek Plant at all times. These security guards monitor entry and exit from PPG property, as well as provide security measures within the manufacturing area. The parking lots are not fenced, but are provided with 24-hour surveillance by telephone monitors used by the guards.

The south truck gate has one powered slide gate and two traffic arms, controlled by the security guard and monitored by a television camera. An intercom system between the truck gate and the guard permits voice contact with truck drivers or persons seeking entry for identification purposes. The gate area is lighted by floodlights to permit recognition at night.

The railroad spur gate is locked, monitored by ADT (commercial security firm), and is connected to an alarm in the security office. This system alerts the guard to any attempted entry. A key control system in the security office requires sign out for keys to the east gate at the storm water outfall, and to the material handling gate at the parking lot. The security attendant logs entry and exit at these gates.

The main office lobby is locked and connected to ADT and an alarm during second and third shift.

F-1a(2) Barrier and Means to Control Entry

(40 CFR 264.14(b)(2)(i) and 264.14(b)(2)(ii))

F-1a(2)(a) Barrier

The PPG Industries Oak Creek Plant has a seven foot high chain link fence surrounding the manufacturing area to prevent unknowing entry by the public. The fence has a barbed wire top and four controlled access gates. There are also two access doors at the administration building.

F-1a(2)(b) Means to Control Entry

As previously discussed, entry to the facility is monitored by trained security guards. Employees are required to carry identification while at work, and visitors must sign a log sheet and carry a visitor pass.

F-1a(3) Warning Signs (40 CFR 264.14(c))

Signs which are legible from a distance of at least 25 feet are posted at all hazardous waste management areas so as to be seen from any approach to the waste management areas.

These signs bear the legend: "Danger Hazardous Materials - Unauthorized Personnel Keep Out" or the legend "Restricted Area - Unauthorized Persons Keep Out." These warning signs alert personnel to the dangers of the hazardous waste.

F-1b Waiver (40 CFR 264.14(a))

The PPG Oak Creek Plant does not request a waiver of the requirements stated in Part 264.14(a)(1) and (2) regarding injury to intruder and violation by intruder.

F-2 Inspection Schedule (40 CFR 264.15)

F-2a General Inspection Requirements (40 CFR 264.15(a), 264.15(b), and 264.33)

This inspection schedule and plan were developed to comply with the requirements that hazardous waste facilities be inspected for malfunctions, operator errors, and discharges which are causing releases, or that may lead to releases of hazardous waste or a threat to human health.

F-2a(1) Types of Problems (40 CFR 264.15(b)(3))

A written schedule for inspections has been developed and followed. This schedule ensures that all safety and emergency equipment, hazardous waste monitoring equipment, security devices, and operating and structural equipment are inspected. The items listed in the inspection logs are considered important because of their role in preventing, detecting, or responding to environmental or human health hazards. Provided with each item inspected is a list of problems normally encountered with that item.

F-2a(2) Frequency of Inspection (40 CFR 264.15(b)(4))

Table F-2-1 is a summary of required inspections, the frequency of inspection, the items and potential problems for which the inspections are conducted, and the party responsible for each inspection.

F-2b Specific Process Inspection Requirements

F-2b(1) Container Storage/Treatment Area Inspections
(40 CFR 264.174)

Daily Inspection

Daily inspections in the container storage and treatment areas will normally be performed by the waste treatment center operator. In the event that the waste treatment center operator is unable to perform this function, the plant Environmental Engineer, or another qualified person will conduct the inspection tour. Results of each inspection will be recorded on the inspection log sheet entitled, "Daily Inspection Log" (see Attachment F-1). This is a general inspection report form and is not specific to only the container management areas.

The daily inspection will try to identify leakage or spills, although general observations about the waste management

area will also be made. The information requested on the daily log sheet includes the inspector's name and title, date and time of inspection, item inspected, typical problems encountered, status of the item, observations, and date and nature of any repairs or remedial action. Daily inspection report forms will be forwarded as soon as they are completed to the plant Environmental Engineer who will review these forms on a daily basis. All deficiencies found during the daily inspection tours will be noted by the Environmental Engineer during his review of the inspection report. These inspection reports will be filed by the Environmental Engineer in a retention log, and retained for a minimum of three years.

Weekly Inspection

Weekly inspections in the container storage/treatment areas will be performed by the plant Environmental Engineer or his alternate. The weekly inspection will provide a closer look at the physical condition of hazardous waste management areas and confinement structures than allowed for in the daily inspections. The Environmental Engineer will complete the "Weekly Inspection Log" (see Attachment F-2) and file it in the same file with the daily inspection logs. Conducting the weekly inspections personally will afford the plant

Environmental Engineer the opportunity to continuously assess the adequacy of the daily inspection tours.

F-2b(2) Tank Inspection (40 CFR 264.194(a) and 264.194(b))

Daily Inspections

Daily inspections of hazardous waste management tanks in the waste treatment center will be performed by the waste treatment center operator. If the waste treatment center operator is unable to perform this function, the plant Environmental Engineer, or another qualified person will conduct the inspection tour. The organic waste treatment tank area at the Resin Plant will be inspected by production personnel normally assigned to that area. Results of each inspection will be recorded on the "Daily Inspection Log." (see Attachment F-1). This report form is general, and therefore is not specific to only the tank management areas.

The daily inspection will try to identify leakage or spills, although observations as to the general conditions of hazardous waste management areas will also be made. The specific information requested on the daily log sheet includes the inspector's name and title, date and time of

inspection, item inspected, typical problems encountered, status of the item, observations, and date and nature of any repairs or remedial action. Daily inspection report forms will be forwarded as soon as they are completed to the plant Environmental Engineer who will review these forms on a daily basis. All deficiencies found during the daily inspection tours will be noted by the Environmental Engineer during his review of the inspection report. The inspection reports will then be filed by the Environmental Engineer in a retention log, and retained for a minimum of three years.

Weekly Inspections

Weekly inspections in the hazardous waste management tank areas will be performed by the plant Environmental Engineer or his alternate. The weekly inspection will provide for a more in-depth inspection of the physical condition of tank and tank management structures than provided for in the daily inspections. The Environmental Engineer will complete the "Weekly Inspection Log" (see Attachment F-2) and file it in the same file with the daily inspection logs. Conducting the weekly inspections personally will afford the plant Environmental Engineer the opportunity to continuously assess the adequacy of daily inspection tours.

Hazardous waste management tanks will be maintained in good repair at all times. An annual thickness reading will be taken with an ultrasonic reader on all readily accessible tank sides. All readings will be recorded and filed with the Environmental Engineer.

If the annual thickness readings or the daily and weekly inspections indicate conditions exist that an internal inspection of a tank is needed, the tank will be emptied and cleaned. Tank entry will be performed as described in the plant's Standard Operating Procedure 0126 included as Attachment F-3.

F-2b(3) Waste Pile Inspection (40 CFR 264.254(a) and 264.255)

Not Applicable.

F-2b(4) Safety/Emergency Equipment Inspection (40 CFR 264.15 (b)(1))

All hazardous waste activities are located within the perimeter fence, and are protected by plant safety and emergency equipment. This safety equipment includes fire extinguishers, fire hoses, fire blankets, overhead sprinklers, safety showers, eye-wash fountains, and fire alarms. All safety equipment is checked for operability and/or deterioration monthly by the plant Safety Department. These monthly checks are intended to discover any defects or malfunctions in the safety equipment which might impair the effectiveness of the equipment. A record of these checks is

kept by the Safety Department. All emergency systems and equipment are checked or tested at least annually to comply with the plant's fire insurance requirements.

Additionally, the plant is divided into seven fire alarm zones. Each zone alarm is tested weekly to ensure that it is functional. Mock fire evacuations are held periodically to ensure that all personnel are familiar with evacuation routes and procedures.

F-2c Remedial Action (40 CFR 264.15 (c) and 264.194 (c))

If inspections reveal that non-emergency maintenance is needed, the maintenance will be completed as soon as possible to preclude further damage and reduce the need for emergency repairs. If a hazard or release is iminent or has already occurred during the course of an inspection or at any time between inspections, remedial action will be taken immediately. The Environmental Engineer will be responsible for arranging corrective actions for any deficiencies noted on the daily, weekly, or monthly inspection reports. When the plant Environmental Engineer is absent, the Assistant Plant Engineer will assume this responsibility and also conduct the inspections.

F-2d Inspection Log (40 CFR 264.15 (d))

A record of inspections is maintained on-site by the Environmental Engineer. After an inspection, the appropriate log sheet is placed in this file and remains on-site for a minimum of three years. This file of past log sheets provides a time record of the condition of all hazardous waste management equipment.

F-3 Waiver of Preparedness and Prevention Equipment

(40 CFR 264.32 and 264.35)

The applicant does not wish to request a waiver of the preparedness and prevention requirements under 40 CFR 264 Subpart C. Requirements of this Subpart are primarily addressed in Section D, Section F, and Section G of this application.

F-3a Equipment Requirements (40 CFR 264.32)

Internal and external communications, emergency equipment, and fire control equipment are discussed in Section F and Section G.

F-3b Aisle Space Requirements (40 CFR 264.35)

Aisle space requirements are addressed in Sections D-1a(2), and D-2a(2).

F-4 Preventative Procedures, Structures, and Equipment

(40 CFR 270.14 (b)(8)(i))

F-4a Loading/Unloading Operations

Hazardous wastes generated in manufacturing are directly piped to hazardous waste treatment tanks, or are collected in labeled containers and then covered. These covered containers of hazardous waste are then transported to the container storage/treatment areas. Occasionally these containers of hazardous waste are pumped into tanks of hazardous waste for treatment or bulk disposal. Spills are unlikely during the container loading operations. In the event of an accident, however, the material will immediately be collected and containerized. This spill clean-up material will be properly labeled and stored in the container storage/treatment areas before being transported to off-site permitted hazardous waste facilities with the other hazardous wastes. The spill affected areas of the facility and equipment will be decontaminated.

The only areas that will involve hazardous waste unloading operations at the PPG plant will be the receiving/shipping areas, the hazardous waste storage pad, and the waste treatment center. These areas will have mostly on-site

generated hazardous waste unloaded, but some small quantities of off-site generated hazardous waste will also be unloaded.

Hazardous waste loading operations will take place when waste is readied for shipment off-site, but once again spills are unlikely. If a spill or accident occurs, the above outlined procedures will be followed.

Precautions will be taken to reduce the potential for hazards during all hazardous waste loading and unloading operations. First, the entire areas involved with these operations are paved and graded to facilitate the smooth movement of all equipment, including forklifts and trucks, into and out of the areas. Second, aisle and ramp space is maintained at all times adequate to provide for the unobstructed movement of equipment in case of an emergency. Third, spill control equipment is available to contain and clean-up a spill should one occur.

Spill control procedures that will be implemented should an accident occur during loading or unloading operations are presented in the SPCC Plan which is attached to Section G.

Containers

All containers remain on pallets during loading and unloading operations. The use of pallets prevent the containers from coming into contact with moisture or spills, as well as facilitating all movements of the containers. When containers are unloaded they are removed from the vehicle by means of a forklift truck and the pallet, and then transferred to a storage aisle. The Waste Treatment Operator prepares containers for loading onto vehicles for transport off-site the day before the containers are to be moved. The specific responsibilities of preparing the containers include: confirming that all the containers are properly labeled, confirming that the integrity of the containers remains uncompromised, and segregating out of the containers to be removed from storage. The Waste Treatment Operator actually loads the containers onto the transport vehicle, and the Environmental Engineer oversees this operation. During all loading and unloading operations all vehicles, containers, and forklift trucks never leave paved areas.

Bulk Loading

The procedure for transfer of organic wastes to tank-wagons for off-site shipment is described in Attachment D-3.

Small Container Pumping

Small lots of organic wastes can be disposed of by pumping to an organic treatment tank. The operation follows the procedure outlined in Attachment D-4.

F-4b Runoff

The Root River is the major body of surface water in the vicinity of the Oak Creek Plant and runoff from the plant eventually flows to this river. The Root River, at its closest point, is located approximately 1,000 feet south of the closest portion of the plant property. Most plant runoff drains to a marshy area on the eastern edge of the plant property. This marshy area drains to the Root River.

The major runoff drainage patterns from the active areas of the plant are as follows:

Central Outfall

The main process and storage areas of the plant, as well as the employee parking area, drain through a storm sewer system to the interceptor basin at outfall 001. Except for

the employee parking area, the process and storage areas of the plant, as well as some tank wagon parking areas, have yard drains that are normally plugged to prevent spills from leaving the plant site. The drains are opened during rainfall events and promptly plugged after runoff ends. Runoff from these areas is monitored as part of the plant's Wisconsin Pollutant Discharge Elimination Source (WPDES) permit requirements. A continuous monitor (Total Carbon) is currently used at the interceptor to detect spills of soluble organic compounds and alert plant personnel. A gate can be closed to contain the spill contaminated runoff on-site and allow proper disposal. Roof runoff from most production buildings drains directly to this storm sewer system. The runoff from the Container Storage Area B is allowed to enter the interceptor basin, after inspection to ensure that the runoff is uncontaminated by hazardous waste.

Southern Ditch

The south side of the plant, including the shipping and receiving departments and the trailer and tank wagon parking area, drains directly to a ditch running along the south side of the plant fence line. This ditch flows to the west and ends at the drainage ditch along South 13th Street, which flows south to the Root River.

South 13th Street Ditch

The west side of the plant, including the main office building and lawn area, drain to South 13th Street Ditch. As previously discussed, this South 13th Street Ditch also collects the runoff flow from the Southern Ditch.

Southeastern Area

A small portion of the southeast corner of the plant area drains directly to the marsh along the railroad spur.

A summary of runoff drainage patterns is provided in Figure F-4-1.

Tank Farm

Rainfall around the underground tank farm will either percolate into the fill around the tanks or drain from the surface into the spill collection trench system. Water percolating into the fill is collected in the tank farm underdrain system. This system is drained to the publicly owned sanitary sewer system or the waste treatment center. Water collected in the spill trenches drains to a spill

retention pond. Pond and sump water is normally pumped to the sanitary sewer or the waste treatment center. All spills and contaminated runoff are managed as hazardous wastes.

F-4c Water Supplies

All hazardous wastes are managed in secure containers or tanks, and are disposed of off-site. Care is taken while wastes are at the Oak Creek Plant to minimize the possibility of spills or other releases of hazardous wastes. However, should a spill or release of hazardous waste occur that is not contained before groundwater is affected, the nearest drinking water well is approximately 1,440 feet west of any Oak Creek Plant hazardous waste management facility. Additionally, a cluster of 7 drinking water wells ranging in distance from 1,980 feet to 2,500 feet occurs northwest of the nearest hazardous waste management facility. Not only are these drinking water wells separated from hazardous waste management facilities by long distances, but the groundwater flow patterns in the area are such that contaminated groundwater would flow away from, not toward, any of the above drinking water wells. For the above reasons, the contamination of drinking water supplies by hazardous waste is highly unlikely.

F-4d Equipment and Power Failure

In the event of a power interruption, the manufacturing operations are shut down. After shutdown, maintenance personnel check for malfunctions and equipment failures. The plant is equipped with a diesel driven fire water pump for safety even during power interruptions.

F-4e Personnel Protection Equipment

The Emergency Coordinator and the Safety Officer keep appropriate personnel informed of the specific hazardous materials located in each area. The Emergency Coordinator or designated alternate will be responsible for coordinating the use of safety equipment and protective clothing in an emergency. All personnel protective equipment is checked for proper repair on a pre-determined schedule as previously provided. The available protective equipment is listed and discussed in greater detail in the Contingency Plan, Section G, and includes MSA air packs, heat-resistant coats, heat-resistant boots, heat-resistant gloves, heat-resistant hats, impermeable gloves, and fire blankets.

F-5 Prevention of Reaction of Ignitable, Reactive, or Incompatible Wastes (40 CFR 264.17 (a), 264.17(b) 264.176, 264.177, 264.198, 264.199 (b), 264.256, and 264.257)

The hazardous wastes generated at the Oak Creek Plant are either corrosive, ignitable, reactive or toxic. However, all wastes produced at the plant are compatible, no violent reactions occur on mixing any wastes. The containers are compatible with the contained wastes; therefore, the only source of ignition for the wastes is external to the containers. To prevent a possible source of external ignition, no smoking is allowed at the Oak Creek Plant and grounding devices are used during transfer of wastes.

The containerized hazardous waste management areas - Items 4 and 5 are approximately 100 feet from the nearest facility fenceline. This distance is greater than the 50 foot separation distance required in 40 CFR 264.176 for containers holding ignitable or reactive wastes. The hazardous waste management tanks are a minimum distance of 240' from the nearest facility fenceline; whereas, the minimum required separation distance for a completely unprotected tank of similar volume containing unstable liquids is 100 feet (NFPA 30, 2-2.1.5). The PPG Oak Creek

plant is clearly in compliance with all applicable separation requirements.

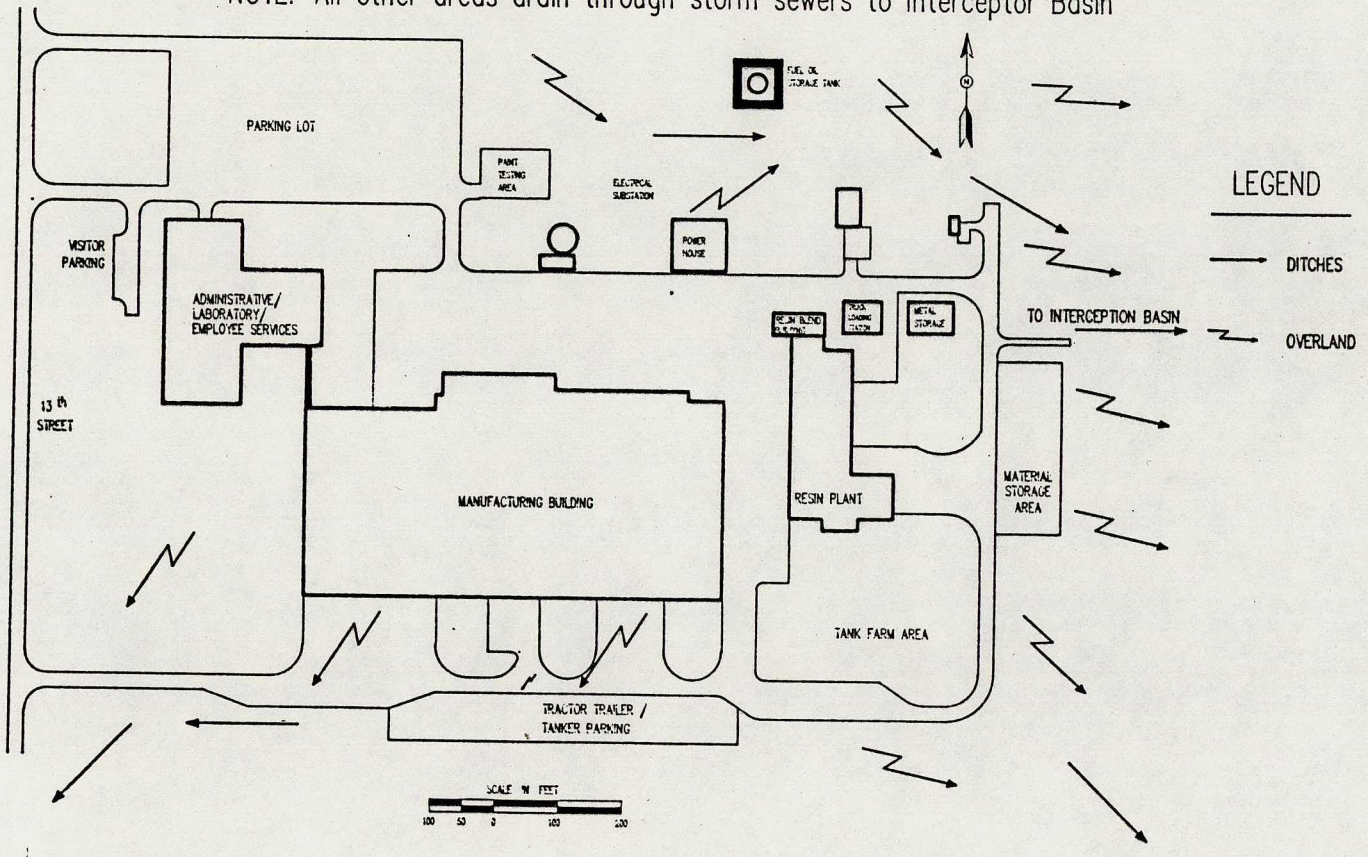
TABLE F-2-1

INSPECTION SCHEDULES

ITEM & PROBLEM	FREQUENCY				RESPONSIBLE PARTY
	DAILY	WEEKLY	MONTHLY	ANNUALLY	
Safety Equipment* - Operability, Deterioration			X		Safety Department
Emergency Systems - Proper Operation				X	Safety Department
Fire Alarms - Proper Operation		X			Safety Department
Hazardous Waste Management Areas - Spills, Leakage	X				Waste Treatment Operator (operating personnel nea ST-30)
Hazardous Waste Management Structures - Physical Condition of Tanks and Containers, Physical Condition of Pads and Confinement Structures		X			Plant Environmental Engineer

* Fire Extinguishers, Fire Hoses, Fire Blankets, Overhead Sprinklers, Safety Showers, Eye-Wash Fountains, and Fire Alarms

NOTE: All other areas drain through storm sewers to Interceptor Basin



GENERAL SITE DRAINAGE	FIGURE NO.
ERM–Midwest	F-4-1

ATTACHMENT F-1

HAZARDOUS WASTE MANAGEMENT
DAILY INSPECTION LOG

Revised: 7/10/84

ATTACHMENT F-1

DAILY INSPECTION LOG

		Satisfactory	Not Satisfactory	Comments (use back if necessary)
A) WASTE TREATMENT CENTER:				
Waste levels in organic storage tanks	1901 _____ ft			
	1902 _____ ft			
Waste level in aqueous sludge storage tank	1910 _____ ft			
Inlet and discharge control features:	Inlet Valves			
	Outlet Valves			
	Overflow Ports			
	High Level Alerts			
Leakage of waste from any piece of equipment				
B) WASTE TREATMENT STORAGE PAD:				
Evidence of leaking drums or spilled material				
Drums are stacked properly				
The general condition of the drums				
C) DRUMMED WASTE STORAGE PAD				
Evidence of leaking drums or spilled material				
Drums are stacked properly				
The general condition of the drums				
D) RECEIVING DOCK:				
Evidence of leaks or spills				
E) JANK FARM:				
Evidence of leaking tanks or spilled material				
Spill containment basin empty of waste material				

ATTACHMENT F-1
(Continued)

DAILY INSPECTION LOG

F) WASTE RECOVERY OPERATIONS:

Inlet and discharge control features: Inlet Valves
Outlet Valves
High Level Alerts

Waste levels in dirty solvent storage tanks 122_____gal
123_____gal
124_____gal
ST30_____%

Evidence of leaks or spills

Drum staging area: Leaks or spills
General condition of drums
Drums are stacked properly

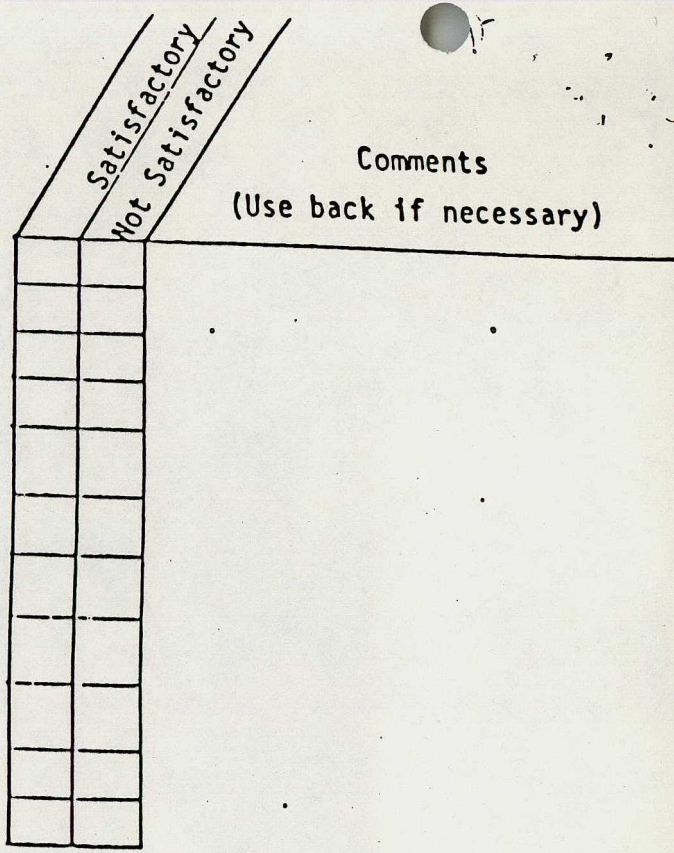
G) MIBK DISTILLATE STORAGE TANK

Inlet & discharge controls
Tank Level _____gals
Evidence of leaks or spills
Condition of containment dyke

H) PLANT DUST COLLECTORS

Industrial
Small Order
Trade
U. V. Product
Resin (North)
Resin (South)

Note: Inspect for visible stack emission and mechanical malfunction



ATTACHMENT F-2

HAZARDOUS WASTE MANAGEMENT
WEEKLY INSPECTION LOG

ATTACHMENT F-2

WEEKLY INSPECTION LOG

	Satisfactory	Not Satisfactory	Comments
Waste Treatment Center			
Condition of treatment/storage tanks:			
1) organic tanks			
2) aqueous tanks			
Condition of piping & pumps			
Condition of confinement structures:			
Condition of area around confinement structures:			
Drummed Waste Storage Pad			
Condition of confinement structures:			
Condition of area around confinement structures:			
Solvent Recovery Still			
Condition of tanks:			
Stills			
Receivers			
Dirty Solvent Storage Tank			
Condition of storage tank(s):			
Condition of confinement structure:			
Condition of area around confinement structure:			
Spill Control Carts			
Resin Plant Cart: 1) Box & cart locked			
2) Key available			
3) Air bottles available			
4) Other			
Paint Plant Cart: 1) Box & cart locked			
2) Key available			
3) Air bottles available			
4) Other			

Date: _____ Inspector: _____

ATTACHMENT F-3

TANK ENTRY PROCEDURE

ATTACHMENT 1-3

Oak Creek Standard Procedure 0126 Effective Date 4/25/84

Title TANK ENTRY Revision # 5 to SOP dated 6/1/78

Author B.W. Walker Page 1 of 5 Pages

SUBJECT:

Entering tanks can be hazardous when the proper safety precautions are not taken. The following procedure explains the requirements for entering a tank under safe conditions. The procedure also establishes the use of a Tank Entry Permit which must be issued on each occasion where an employee enters a tank.

DISTRIBUTION:

All S.O.P. Manual Holders

APPROVALS:

S.J. BONINO

J.M. GEZO

R.J. BAYER

C.E. HARRISON

B.W. WALKER

PROCEDURE:

Definition of a Tank: For the purpose of safe entry, the term "Tank" refers to tanks, vessels, boilers, manholes, large pipes, and similar confined areas where the following hazards may exist: chemicals; inert gas or oxygen deficiency.

PROCEDURE: (continued)

1. The supervisor of the employees who enter a tank will be responsible for informing the employees of SOP #0126 and responsible for enforcing compliance with all requirements in the procedure.

2. A prejob conference will be conducted by the persons in Paragraph three (3) to discuss the requirements of this procedure and the procedure for inspecting the job before the permit is issued. The prejob conference, inspection and permit must be complete before anyone enters the tank.

3. The following persons shall inspect each tank before anyone enters it. The inspection must include a complete check of all requirements on the Tank Entry Permit. Entry can occur only after all approvers of the permit are completely satisfied that the tank satisfies permit requirements and is safe to enter.

   a. When only Production personnel will enter the tank, the Production Supervisor in charge of the tank and an Area Supervisor, Production Engineer or Department Head will be responsible for approving the tank entry permit (two approvals).

   b. When Maintenance personnel or contractors will enter the tank, the Production Supervisor in charge of the tank and two of the following will be responsible for approving the Tank Entry Permit.

      1) Maintenance Supervisor
      2) Maintenance Engineer
      3) Production Engineer
      4) Management representative hiring the contractor

4. The employees who will enter the tank will also be responsible for complying with the SOP #0126 and will accompany the supervisor(s) as they complete the permit checklist. This will insure that everyone involved is knowledgeable of the tank conditions before entry occurs.

5. Each permit will be limited to an 8 hour period of time unless unusual circumstances require rechecking the tank before reentering after a break.

PROCEDURE: (continued)

6. Each tank must be cleared and cleaned of all hazardous materials before anyone enters the tank.

7. The power source to any mechanical equipment inside or attached to the tank shall be locked out according to SOP #0701, Lockout Procedure.

8. All connecting lines must be cleared and cleaned prior to entry. All lines will also be disconnected from the tank or locked out at the manifold with a locking cap, or blanked at the nearest flange to the tank.

9. A 12 volt, explosion-proof lighting system with protected bulbs will be used when lighting is needed in the tank.

10. Any air moving devise used for purging tanks must be approved for Class I Division I areas. Plant compressed air may be used for purging tanks. (Although not for breathing through a respirator).

11. An air-supplied respirator and rescue wristlets must be worn by all employees inside the tank. Exceptions will be approved only by the Safety Department. Plant air must not be used as a breathing air supply at any time.

12. The tank atmosphere must be tested for flammability and oxygen content before employees enter the tank.

    A. If the oxygen content is less than 19.5%, or the Lower Flammable Limit (LFL) is greater than 0.0%, the person entering the tank must wear an air-supplied respirator with an auxiliary escape unit and have lifelines attached to the rescue wristlets.

    B. If the oxygen content is greater than 19.5%, the person entering the tank need not wear either the auxiliary escape unit or the lifeline; however, he/she must always wear an air-supplied respirator and wristlets when entering a tank.

    C. The % LFL and % oxygen content must be recorded on the permit.

PROCEDURE: (continued)

13. If it is necessary to enter a tank with an atmosphere immediately dangerous to life or health (toxic), the person entering must wear an air-supplied respirator with an auxiliary escape unit and rescue wristlets attached to a lifeline.

14. A watchman must be provided to observe the person(s) in the tank and must be supplied with the same protective equipment as those entering the tank.

15. A ladder must be provided where it is necessary to climb up or down into tanks.

16. A Hazardous Work Permit (SOP # 0125) must be issued for any hazardous work performed in the tank.

17. This Tank Entry SOP applies to all contractors' personnel as well as PPG employees.

18. The following equipment is available from the areas listed. The supervisor or engineer responsible for the work must obtain the necessary equipment from the appropriate location and ensure that it is returned to that location in a clean and usable condition when the job is complete.

Equipment Required	Location
A. Emergency Escape Units	Safety Storeroom
B. Air-Supplied Respirator	Safety Storeroom
C. Air Cylinders, Regulator and Hose	Maintenance Shop Paint Mfg 2nd Floor Resin Department
D. Rescue Wristlets	Maintenance Storeroom Paint Mfg 2nd Floor Resin Department Safety Storeroom
E. Lifelines	Maintenance Department Paint Mfg 2nd Floor Resin Department

Oak Creek Standard Procedure 0126 Effective Date 4/25/84

Title TANK ENTRY Revision #5 to SOP dated 6/1/78

Author B.W. Walker Page 5 of 5 Pages

PROCEDURE: (continued)

	Equipment Required	Location
F.	Combustible Gas/Oxygen Analyzers	Maintenance Office Production Engineering Resin Control Room
G.	Permits	Maintenance Office Resin Control Room Production Engineering
H.	12 Volt Lighting	Maintenance Shop Resin Department Paint Mfg 2nd Floor
I.	Air Mover (for purging tanks)	Maintenance Department
J.	Ladder	Maintenance Department Paint Mfg 2nd Floor Resin Department
K.	Welder's Adapter for Ultraview Respirator	Safety Storeroom

PPG INDUSTRIES

TANK ENTRY PERMIT

DEFINITION OF A TANK: A tank is any vessel, boiler, large container, tank wagon or other confined space where work may be performed and mechanical, chemical or oxygen deficiency hazards may exist.

A prejob conference with all affected people must be conducted to plan the job and review SOP No. 0126, "Tank Entry Procedure," prior to entering the tank.

Complete the following information during the prejob conference.

Location of Tank: _____

Tank Description: _____

Condition of Tank: _____

_____

Prior Contents of Tank: _____

_____

Work Description: _____

_____

Special Instructions: _____

This permit must be completed and signed by at least two members of Management. The employees who will enter the tank must accompany the members of Management as the checklist on reverse side of this permit is completed.

This permit is void after eight (8) hours and must be returned to the Safety Department.

PREJOB INSPECTION CHECKLIST

This checklist must be completed and signed before this permit is valid.

CHECK EACH ITEM

YES NO

- ☐ ☐ A prejob conference was conducted. The tank has been cleared and cleaned of all hazardous materials.
- ☐ ☐ All powered equipment has been locked out (Refer to SOP No. 0701 "Lockout Procedure.")
- ☐ ☐ All connecting lines have been cleared and disconnected or blanked.
- ☐ ☐ Protected twelve volt (12V) lighting has been provided.
- ☐ ☐ An approved air mover or ventilation has been provided.
- ☐ ☐ The internal tank temperature is below 110°F.
- ☐ ☐ A ladder has been provided.
- ☐ ☐ A "Hazardous Work Permit" (SOP No. 0125) has been issued.
- ☐ ☐ A watchman has been provided.
- ☐ ☐ Combustible vapors have been checked. %LFL= _____
- ☐ ☐ Oxygen content has been checked. % Oxygen= _____

PERSONAL PROTECTIVE EQUIPMENT

Y	N		Y	N	
☐	☐	Air Line Respirator (Emp. Must Wear)	☐	☐	Protective Clothing (Determined by Hazard)
☐	☐	Escape Respirator (IDLH Conditions Only)	☐	☐	Rubber Footwear
☐	☐	Wristlets (Emp. Must Wear)	☐	☐	Rescue Equipment (Required at Job Site)
☐	☐	Lifelines (Required at Job Site)	☐	☐	Other _____

INSPECTED AND APPROVED BY:

MAINTENANCE _____

PRODUCTION _____

ENGINEERING _____

OTHER _____

DATE _____ TIME _____

This permit is void after eight (8) hours and must be returned to the Safety Department.

ATTACHMENT F-3

TANK ENTRY PROCEDURE

Oak Creek Standard Procedure 0126 Effective Date 4/25/84

Title TANK ENTRY Revision # 5 to SOP dated 6/1/78

Author B.W. Walker Page 1 of 5 Pages

SUBJECT:

Entering tanks can be hazardous when the proper safety precautions are not taken. The following procedure explains the requirements for entering a tank under safe conditions. The procedure also establishes the use of a Tank Entry Permit which must be issued on each occasion where an employee enters a tank.

DISTRIBUTION:

All S.O.P. Manual Holders

APPROVALS:

J.J. Bonino
J.J. BONINO

J.M. Gezo
J.M. GEZO

R.J. Bayer
R.J. BAYER

C.E. Harrison
C.E. HARRISON

B.W. Walker
B.W. WALKER

PROCEDURE:

Definition of a Tank: For the purpose of safe entry, the term "Tank" refers to tanks, vessels, boilers, manholes, large pipes, and similar confined areas where the following hazards may exist: chemicals; inert gas or oxygen deficiency.

PROCEDURE: (continued)

1. The supervisor of the employees who enter a tank will be responsible for informing the employees of SOP #0126 and responsible for enforcing compliance with all requirements in the procedure.

2. A prejob conference will be conducted by the persons in Paragraph three (3) to discuss the requirements of this procedure and the procedure for inspecting the job before the permit is issued. The prejob conference, inspection and permit must be complete before anyone enters the tank.

3. The following persons shall inspect each tank before anyone enters it. The inspection must include a complete check of all requirements on the Tank Entry Permit. Entry can occur only after all approvers of the permit are completely satisfied that the tank satisfies permit requirements and is safe to enter.

   a. When only Production personnel will enter the tank, the Production Supervisor in charge of the tank and an Area Supervisor, Production Engineer or Department Head will be responsible for approving the tank entry permit (two approvals).

   b. When Maintenance personnel or contractors will enter the tank, the Production Supervisor in charge of the tank and two of the following will be responsible for approving the Tank Entry Permit.

      1) Maintenance Supervisor
      2) Maintenance Engineer
      3) Production Engineer
      4) Management representative hiring the contractor

4. The employees who will enter the tank will also be responsible for complying with the SOP #0126 and will accompany the supervisor(s) as they complete the permit checklist. This will insure that everyone involved is knowledgeable of the tank conditions before entry occurs.

5. Each permit will be limited to an 8 hour period of time unless unusual circumstances require rechecking the tank before reentering after a break.

PROCEDURE: (continued)

6. Each tank must be cleared and cleaned of all hazardous materials before anyone enters the tank.

7. The power source to any mechanical equipment inside or attached to the tank shall be locked out according to SOP #0701, Lockout Procedure.

8. All connecting lines must be cleared and cleaned prior to entry. All lines will also be disconnected from the tank or locked out at the manifold with a locking cap, or blanked at the nearest flange to the tank.

9. A 12 volt, explosion-proof lighting system with protected bulbs will be used when lighting is needed in the tank.

10. Any air moving devise used for purging tanks must be approved for Class I Division I areas. Plant compressed air may be used for purging tanks. (Although not for breathing through a respirator).

11. An air-supplied respirator and rescue wristlets must be worn by all employees inside the tank. Exceptions will be approved only by the Safety Department. Plant air must not be used as a breathing air supply at any time.

12. The tank atmosphere must be tested for flammability and oxygen content before employees enter the tank.

    A. If the oxygen content is less than 19.5%, or the Lower Flammable Limit (LFL) is greater than 0.0%, the person entering the tank must wear an air-supplied respirator with an auxiliary escape unit and have lifelines attached to the rescue wristlets.

    B. If the oxygen content is greater than 19.5%, the person entering the tank need not wear either the auxiliary escape unit or the lifeline; however, he/she must always wear an air-supplied respirator and wristlets when entering a tank.

    C. The % LFL and % oxygen content must be recorded on the permit.

PROCEDURE: (continued)

13. If it is necessary to enter a tank with an atmosphere immediately dangerous to life or health (toxic), the person entering must wear an air-supplied respirator with an auxiliary escape unit and rescue wristlets attached to a lifeline.

14. A watchman must be provided to observe the person(s) in the tank and must be supplied with the same protective equipment as those entering the tank.

15. A ladder must be provided where it is necessary to climb up or down into tanks.

16. A Hazardous Work Permit (SOP # 0125) must be issued for any hazardous work performed in the tank.

17. This Tank Entry SOP applies to all contractors' personnel as well as PPG employees.

18. The following equipment is available from the areas listed. The supervisor or engineer responsible for the work must obtain the necessary equipment from the appropriate location and ensure that it is returned to that location in a clean and usable condition when the job is complete.

Equipment Required	Location
A. Emergency Escape Units	Safety Storeroom
B. Air-Supplied Respirator	Safety Storeroom
C. Air Cylinders, Regulator and Hose	Maintenance Shop Paint Mfg 2nd Floor Resin Department
D. Rescue Wristlets	Maintenance Storeroom Paint Mfg 2nd Floor Resin Department Safety Storeroom
E. Lifelines	Maintenance Department Paint Mfg 2nd Floor Resin Department

Oak Creek Standard Procedure 0126 Effective Date 4/25/84

Title TANK ENTRY Revision #5 to SOP dated 6/1/78

Author B.W. Walker

PROCEDURE: (continued)

	Equipment Required	Location
F.	Combustible Gas/Oxygen Analyzers	Maintenance Office Production Engineering Resin Control Room
G.	Permits	Maintenance Office Resin Control Room Production Engineering
H.	12 Volt Lighting	Maintenance Shop Resin Department Paint Mfg 2nd Floor
I.	Air Mover (for purging tanks)	Maintenance Department
J.	Ladder	Maintenance Department Paint Mfg 2nd Floor Resin Department
K.	Welder's Adapter for Ultraview Respirator	Safety Storeroom

TANK ENTRY PERMIT

INDUSTRIES

DEFINITION OF A TANK: A tank is any vessel, boiler, large container, tank wagon or other confined space where work may be performed and mechanical, chemical or oxygen deficiency hazards may exist.

A prejob conference with all affected people must be conducted to plan the job and review SOP No. 0126, "Tank Entry Procedure," prior to entering the tank.

Complete the following information during the prejob conference.

Location of Tank: _____

Tank Description: _____

Condition of Tank: _____

_____

Prior Contents of Tank: _____

_____

Work Description: _____

_____

Special Instructions: _____

This permit must be completed and signed by at least two members of Management. The employees who will enter the tank must accompany the members of Management as the checklist on reverse side of this permit is completed.

This permit is void after eight (8) hours and must be returned to the Safety Department.

PREJOB INSPECTION CHECKLIST

This checklist must be completed and signed before this permit is valid.

CHECK EACH ITEM

YES	NO	
☐	☐	A prejob conference was conducted. The tank has been cleared and cleaned of all hazardous materials.
☐	☐	All powered equipment has been locked out (Refer to SOP No. 0701 "Lockout Procedure.")
☐	☐	All connecting lines have been cleared and disconnected or blanked.
☐	☐	Protected twelve volt (12V) lighting has been provided.
☐	☐	An approved air mover or ventilation has been provided.
☐	☐	The internal tank temperature is below 110°F.
☐	☐	A ladder has been provided.
☐	☐	A "Hazardous Work Permit" (SOP No. 0125) has been issued.
☐	☐	A watchman has been provided.
☐	☐	Combustible vapors have been checked. %LFL= _____
☐	☐	Oxygen content has been checked. % Oxygen= _____

PERSONAL PROTECTIVE EQUIPMENT

Y	N		Y	N	
☐	☐	Air Line Respirator (Emp. Must Wear)	☐	☐	Protective Clothing (Determined by Hazard)
☐	☐	Escape Respirator (IDLH Conditions Only)	☐	☐	Rubber Footwear
☐	☐	Wristlets (Emp. Must Wear)	☐	☐	Rescue Equipment (Required at Job Site)
☐	☐	Lifelines (Required at Job Site)	☐	☐	Other _____

INSPECTED AND APPROVED BY:

MAINTENANCE _____

PRODUCTION _____

ENGINEERING _____

OTHER _____

DATE _____ TIME _____

This permit is void after eight (8) hours and must be returned to the Safety Department.

MANAGEMENT APPROVAL AND DELEGATION OF AUTHORITY

THE PROVISIONS OF THIS HAZARDOUS WASTE CONTINGENCY PLAN WILL BE CARRIED OUT WHENEVER THERE IS A FIRE, EXPLOSION, OR RELEASE OF HAZARDOUS WASTE OR HAZARDOUS WASTE CONSTITUENTS WHICH COULD THREATEN HUMAN HEALTH OR THE ENVIRONMENT.

THE INDIVIDUAL DESIGNATED AS THE EMERGENCY COORDINATOR, AND INDIVIDUALS DESIGNATED AS ALTERNATE EMERGENCY COORDINATORS IN THE ABSENCE OF THE EMERGENCY COORDINATOR, ARE AUTHORIZED TO COMMIT THE RESOURCES NEEDED TO CARRY OUT THIS CONTINGENCY PLAN.

SIGNATURE: N Marvich

NAME: N. Marvich

TITLE: Plant Manager

DATE: 7-9-85

SECTION G

CONTINGENCY PLAN

The information submitted is in accordance with the requirements for a contingency plan, as contained in 40 CFR 264 Subpart D and Wisconsin NR 181.42(4).

The intent of these regulations is to ensure that facilities that treat, store, or dispose of hazardous wastes have established procedures in the event an emergency situation should arise. This plan is designed to minimize hazards to human health or the environment from fires, explosions, or unplanned sudden or non-sudden discharges of hazardous wastes to the air, soil, or surface water. It will be implemented whenever any of the above emergencies occur.

G-1 General Information

The PPG Industries Coating and Resins Plant is located approximately six miles south of the City of Milwaukee in Milwaukee County, Wisconsin. The mailing address is:

PPG Industries, Inc.
10800 South 13th Street
Oak Creek, WI 53134

This plant produces a wide variety of solvent and water-based trade sales, industrial and automotive coatings and resins. Many of the raw materials used at this plant are hazardous materials, including flammable materials.

This Contingency Plan specifically covers the hazardous waste management areas as shown on Figure G-1-1. The hazardous waste management activities at the Oak Creek Plant include storage, treatment, and reclamation of various waste streams. Waste streams at the Oak Creek Plant consist of contaminated straining media from production processes, caustic waste from cleaning operations, organic sludges from a solvent recovery still, scrubber water and dust from air pollution control equipment, solvent and water washes from cleaning of process tanks, resin reactor decanter effluent,

miscellaneous wastes generated from various maintenance or clean-up activities, wastewater treatment sludges, and defective paint and resin products. A list of hazardous waste streams with their associated hazards is included in Table G-1-1. No hazardous wastes are disposed on-site, nor are there any plans to dispose of hazardous waste on-site.

The contact and party responsible for hazardous waste management at the Oak Creek Plant is:

Mr. Dan Scudder
Environmental Engineer
(414) 764-6000

G-2 Emergency Coordinator (40 CFR 264.52 (d) and 264.55)

The Plant Manager, or his designee, will be the Emergency Coordinator in all emergency situations. The positions that the Plant Manager may designate as alternate Emergency Coordinator are:

Safety Manager

Plant Engineer

Environmental Engineer

Resin Production Manager

Paint Production Manager

Operations Planning Manager

Employee Relations Manager

The above individuals that may individually be alternate Emergency Coordinators, also constitute the "Plan Control Team." The Plan Control Team will report to the Emergency Coordinator in the event of an emergency. If the nature of the emergency does not warrant the full "Plan Control Team" to be involved, the Emergency Coordinator may delegate authority to one or more of the team members. The Emergency Coordinator, whatever his normal position and responsibilities, will have the authority to expend monies

and resources as necessary to control the emergency situation.

When the plant is operating at reduced production, the production supervisor will act as temporary Emergency Coordinator for any hazardous waste incident. This individual will be trained in the appropriate hazardous waste management techniques, and will have the authority to expend monies and resources as necessary to control an emergency, or to call-in the "Plan Control Team" for a significant incident.

The positions, names, office phone number, home addresses, and home phone number of individuals on the Plan Control Team qualified to discharge the responsibilities of the Emergency Coordinator can be found in Table G-2-1. The individuals listed in Table G-2-1 receive both classroom and field training appropriate with their emergency responsibilities. (See Section H - Personnel Training.)

The duties and responsibilities of the Emergency Coordinator (or his designee) during an imminent or actual emergency situation are shown in Attachment G-1. The order of execution will be dictated by the particular situation.

After any fire, explosion, or major release of hazardous waste, an investigation will be conducted by a team consisting of the Emergency Coordinator, the Plant Manager, the Environmental Engineer, and the supervisor of the area, in which the emergency occurred, and others as deemed necessary. This investigation will determine the cause of the emergency, will enumerate procedures to prevent reoccurrence of the emergency, and will implement the defined procedures to prevent a further occurrence of the emergency.

G-3 Implementation of the Contingency Plan

(40 CFR 264.51 (b))

Immediate response is the most important factor in reacting to an emergency situation. In order to minimize time requirements for response to emergency situations, PPG management has specified individual responsibilities in the event of a fire, explosion, hazardous waste spill, or other emergency that could threaten human health or the environment. The responsibility for implementation of these procedures and for coordination with local authorities and emergency response teams rests with the Emergency Coordinator.

The Contingency Plan will be implemented if any of the following situations occur.

- Fire
  - Occurrence of any fire within any part of the hazardous waste management facilities or accumulation areas.
  - Any fire that occurs near the hazardous waste management facilities or accumulation areas

that cannot be immediately extinguished with the equipment at hand.

- Explosions

  - Any explosion of any magnitude within or in the vicinity of the hazardous waste management areas or accumulation areas.

- Spills

  - Any spill, breakage, leakage, etc. which releases hazardous waste and occurs within or in the vicinity of the hazardous waste management areas or accumulation areas.

G-4 Emergency Response Procedures

This section of the Contingency Plan describes the procedures to be followed once the decision has been made by the Emergency Coordinator to implement the Contingency Plan.

G-4a Notification (40 CFR 264.56 (a))

Any employee observing a potential emergency condition involving hazardous waste will immediately notify his supervisor. The supervisor will immediately notify the Emergency Coordinator who will make the necessary subsequent notifications of the appropriate facility personnel, as well as appropriate federal, state, or local agencies.

G-4b Identification of Hazardous Wastes (40 CFR 264.56 (b))

In an emergency situation the Emergency Coordinator will immediately identify the character, source, amount, and areal extent of any hazardous waste release. Initial identification of hazardous materials is accomplished via visual inspection and location of release. If the above methods prove unable to identify a hazardous waste, then

physical samples will be taken for analysis of hazardous characteristics and chemical composition.

The types of hazardous wastes managed in tanks and related piping at the Oak Creek facility are typically considered hazardous due to considerations of ignitability, toxicity, EP toxicity, or corrosivity. Although a number of discrete generating processes contribute to hazardous waste production, the hazardous characteristics of these wastes are generally limited to those above. In an emergency situation it is expected that ignitability or corrosivity will be of most concern to an Emergency Coordinator.

All containers holding hazardous wastes are labeled as to contents and should immediately be consulted in the event of a hazardous waste release.

Updated listings of hazardous wastes, and their associated hazards, managed at the Oak Creek facility are made available on an as needed basis to key individuals in the team by the Environmental Engineer. These updated listings also contain emergency requirements and procedures associated with each type of waste.

G-4c Hazard Assessment (40 CFR 264.56 (c) and 264.56 (d))

The supervisor of an employee observing a possible hazardous waste emergency must confirm the reported incident and notify the Emergency Coordinator and Environmental Engineer. The following basic information is to be transmitted as completely as possible.

1. Time hazardous event occurred or was first observed.

2. The location of the hazardous event, and potential effected areas if involved substances are moving.

3. Type of substances involved in hazardous event.

4. Estimate of quantity of substances involved in event.

5. All related conditions affecting events, such as wind direction or precipitation.

6. Cause of hazardous event.

7. Immediate actions being taken to contain or ameliorate the situation.

8. Opinions as to the potential affects on employees, equipment, and the environment.

Based on the above information, on-site personal observations (if time permits), and any consultations with other plant personnel, the Emergency Coordinator must evaluate the extent of the hazard and decide: 1) if regulatory agencies should be notified, and 2) if the emergency area should be evacuated.

In assessing the hazard, the following should be considered:

1. The hazard and potential hazards involved.

2. The degree of toxicity of the material.

3. Presence of toxic, irritating, or asphyxiating gases which may be present as a result of fire control.

4. Containment, or lack thereof, of a spill.

5. Uncertainty as to the extent of migration of wastes or water used in fire control.

6. Ability of plant personnel to contain the emergency.

G-4d Control Procedures (40 CFR 264.52 (a))

Potential accidents fall under the general classifications of: 1) fire and/or explosions, and 2) spills or material release. All disasters are considered to fall into one of the above two classifications.

Fire and/or Explosion

All tank management areas, container management areas, and loading areas can be easily accessed by fire-fighting equipment and personnel as well as all other emergency equipment, vehicles, and personnel. Roads are paved in the immediate vicinity of all hazardous waste management areas.

A company fire brigade with a company fire truck is on standby during all general plant emergencies. Fire fighting efforts will only be carried out by the plant fire brigade until outside fire assistance has arrived.

The following actions will be taken in the areas affected by a fire or explosion:

1. Attempt to contain fire by closing fire doors.

2. Shut down work in all areas affected or potentially affected by the fire.

3. Contact the fire brigade, giving the location, cause, and extent of the fire; note any liquids or gases escaping near the fire.

4. Notify the Emergency Coordinator, presenting the same information as in item (6) above. The Emergency Coordinator will contact all other appropriate facility personnel.

5. Cordon off the emergency area and keep all unnecessary traffic away from the emergency area. Evacuate area to a safe distance from the emergency zone.

6. The Emergency Coordinator, Supervisor of the affected area, and the Fire Brigade will assess the problem and implement action to control the emergency and prevent its recurrence.

7. The Emergency Coordinator or his designee will contact all necessary outside agencies or organizations.

Spills or Material Release

1. Evacuate the area immediately, taking any immediate spill containment actions possible.

2. Contact Supervisor of area and all other personnel on location. The Supervisor will notify the Emergency Coordinator with the information outlined in Section G-4C.

3. The Emergency Coordinator, area Supervisor and other pertinent personnel will assess the situation and determine if the reporting individual and immediate personnel should

clean-up the spill/release or if the Spill Response Carts and emergency equipment should be activated. All key personnel will be notified by the Emergency Coordinator.

4. The emergency area will be cordoned off and all unnecessary traffic/individuals will be prevented from entering the area.

5. Remedial actions will be taken with absorbents, neutralizers, chemical diluents, chemical additives, etc. All clean-up personnel will be familiar with the use of absorbents, neutralizers, safety protection, and spill control methods.

6. If warranted by the spill or release, the SPCC plan will be implemented. The SPCC plan is included as Attachment G-2.

7. The Environmental Engineer shall make arrangements for containerization and storage of all waste products from all hazardous waste emergency situations.

8. The Environmental Engineer will coordinate with appropriate federal, state, or local agencies and officials in reporting emergency details and resuming normal operations.

G-5 Emergency Equipment (40 CFR 264.52 (e))

All facilities at the Oak Creek Plant are equipped with safety and emergency equipment to minimize the potential for emergencies specific to each area or process. Particular care has been taken to provide sufficient space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area in any emergency. The plant security fence, security guards, and periodic inspections of emergency equipment all serve to ensure adequate preparation for potential emergencies.

Specific communications, fire equipment, hazardous spill equipment, and safety systems that may possibly be used in a hazardous waste emergency are summarized below:

- Communications
  - In-plant telephone system which is capable of making calls both within and outside the plant.
  - Public address system for use in paging and emergency alerts.

- Two-way radios, held by various personnel at the plant site, including the Security Personnel.

- Fire alarm system, audible throughout the plant, used for evacuation purposes. The alarms define the zones of the plant involved in the emergency, as indicated in Figure G-5-1.

- Fire Fighting Capabilities

- High pressure firewater system with hydrants in various locations. This firewater system is also hooked up to overhead sprinklers located in most buildings. The locations of hydrants and automatic sprinklers are shown in Figure G-5-2. The pressure in the firewater system is maintained by an on-site diesel driven firewater pump, with 400,000 gallons of firewater storage.

- Portable hand-held fire extinguishers located throughout the plant and in some mobile vehicles.

- On-site Plant Fire Brigade, Fire Truck, and auxiliary equipment.

- Spill Control Equipment

  - Various sorbent materials.

  - Protective clothing for spill clean-up. This protective clothing includes gloves, hats, suits, and boots.

  - Respirators and air packs.

  - Air operated vacuums designed for suction pick-up of liquids.

A complete list of available on-site emergency equipment is included in Attachment G-3. The Safety Manager and the Environmental Engineer, at the direction of the Emergency Coordinator, will ensure that all clean-up and emergency equipment is decontaminated and ready for use before

resuming normal operations. Location of emergency equipment near the hazardous waste management areas is shown in Figure G-5-3. Attachment G-5 lists all emergency and communication equipment for the outdoor hazardous waste container storage areas and Figure G-5-4 shows the locations of this equipment.

G-6 Coordination Agreements (40 CFR 264.52 (c) and 264.37)

The Oak Creek Plant has made every effort to minimize the possibility of a hazardous waste emergency. It has made advance arrangements with emergency response teams and has provided for the maintenance of safety and emergency equipment. The details of these efforts are discussed below:

Wherever appropriate, PPG has arranged to familiarize local authorities and emergency response teams with the layout of the plant, the properties and potential problems of the materials handled, the availability of and access to emergency equipment and emergency procedures. In addition to these arrangements, which are described below, a copy of the plant's contingency plan has been submitted to each of these organizations. A copy of the letter which will accompany the most recent transmission to local authorities is provided in Figure G-6-1. To date, no local authorities have declined to enter into coordination agreements. A list of telephone numbers and emergency procedures for contacting these organizations is provided for use by the Emergency Coordinator. Organizations with which facility management has coordinated emergency arrangements include:

Oak Creek Fire Department and Ambulance Service	414/762-3030
Oak Creek Police Department	414/762-8200
St. Mary's Hospital	414/289-7000
St. Luke's Hospital	414/647-6423
Trinity Memorial Hospital	414/769-9000

G-7 Evacuation Plan (40 CFR 264.52 (f))

All emergencies require prompt and deliberate action. In the event of any major emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible; however, in specific emergency situations, the Emergency Coordinator may deviate from the procedures to provide a more effective plan for bringing the situation under control. The acting Emergency Coordinator is responsible for determining which areas of the plant require evacuation due to a hazardous waste emergency.

When evacuation of the plant or some portion of the plant is necessary, the general plant alarms will define the zone(s) involved in the emergency and initiate the use of the evacuation plan. The number of pulses on the plant's general alarm system will indicate the plant zone to be evacuated (see Figure G-5-1). Evacuation routes from hazardous waste management areas will follow those shown in Figure G-7-1, and evacuation will comply with SOP 0109, "General Evacuation Procedures", which is included as Attachment G-4.

G-8 Required Reports (40 CFR 264.56 (d), 264.56 (i) and 264.73 (b) (4))

As required by Federal Regulations 40 CFR 264.56(j), any emergency event (e.g. fire, explosion, etc.) that requires implementing the contingency plan will be reported within 15 days to the EPA Regional Administrator. The written report will contain the name, telephone number, and address of PPG Industries as well as the date, time, type of incident, name and quantity of materials involved, extent of injuries, an assessment of actual or potential hazards to human health or the environment, and the estimated quantity and description of the recovered material that resulted from the incident.

G-9 Amendments to the Contingency Plan (40 CFR 264.54)

The Contingency Plan will be reviewed and amended, if necessary, whenever:

- Applicable regulations are changed.
- The plan fails in an emergency.
- The list of emergency coordinators changes.
- The list of emergency equipment significantly changes.
- Changes to the facility that affect the potential for or response to a hazardous waste emergency.

G-10 Spill Prevention Control and Countermeasure Plan

The Oak Creek Plant's SPCC Plan is included as Attachment G-2. It is included as a reference document only. Most of the information is related to general plant spill control procedures and is subject to change. This section of the contingency plan will be amended only if changes in the SPCC Plan effect the hazardous waste management areas.

FIGURE G-6-1

(To be submitted in duplicate)

TRANSMITTAL FORM FOR LOCAL AGENCIES

TO: _____ DATE: _____

_____

_____

_____

Attached is a copy of the Contingency Plan for the PPG Industries, Inc. - Oak Creek, WI Coatings and Resins Facility. This plan is required by 40 CFR Part 264 Subpart D of the Federal Hazardous Waste Regulations. It is submitted to your agency in compliance with Section 264.53 (b) which states: "A copy of the Contingency Plan and all revisions must be submitted to all local police departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

Please review this plan to determine whether your agency is in agreement with the portions of the plan that affect your duties and/or responsibilities. After reviewing, please check the appropriate box, sign, and return one copy in the enclosed self-addressed, stamped envelope. Your cooperation in this matter is deeply and truly appreciated. If you wish a tour of our facility, please contact me at (414) 764-6000, X302.

_____
Daniel F. Scudder
Environmental Engineer

To be completed by Agency: DATE: _____

We have reviewed your Contingency Plan and:

( ) Are in agreement with its content.

( ) Are not in full agreement with its content because of the following points:

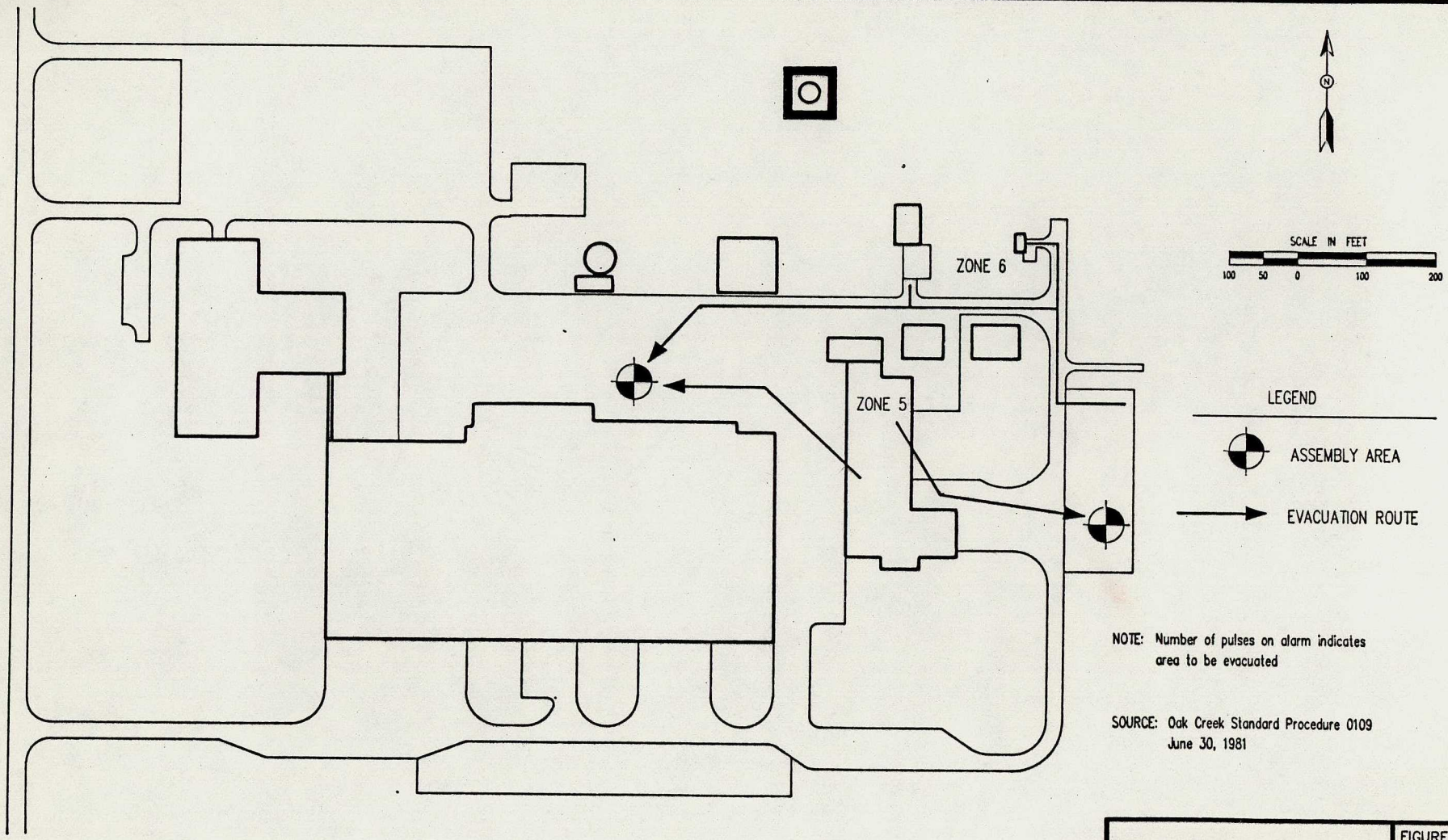
1. _____

2. _____

3. _____

NAME: _____

AGENCY: _____



HAZARDOUS WASTE MANAGEMENT ZONE EVACUATION ROUTES	FIGURE NO.
ERM–Midwest	G–7–1

ATTACHMENT G-1

EMERGENCY COORDINATOR DUTIES

ATTACHMENT G-1

1. Activate internal facility alarms and communication systems in order to notify all plant personnel.

2. Notify appropriate state or local agencies where emergency assistance is required.

3. Identify character, source, amount and extent of any released materials.

4. Assess possible hazards to health or the environment considering direct and indirect effects of the release, fire or explosion, such as toxic, irritating or asphyxiating gases that are generated, or the effects of any hazardous surface waste run-offs from water or chemical agents used to control fire and explosions. Appropriate measures to mitigate possible dangers will be identified and implemented.

5. Contact PPG Coatings and Resins Group Manager of Environmental Engineering and Control for review and directions.

6. If the release could threaten health or the environment outside the facility, he must report to the appropriate local authorities and advise if evacuation is necessary. Call the National Response Center, 800-424-8802 and report:

   a. Name and telephone number of reporter
   b. Name and address of the facility
   c. Time and type of incident
   d. Name and quantity of materials involved
   e. Extent of injuries
   f. Possible hazards to health and environment outside facility

7. Take all necessary steps to ensure that fire and explosion do not occur, recur or spread to other hazardous waste. Stop processing and operations, collect and contain released wastes, remove and isolate containers. Monitor for leaks, pressure buildup, gas generation, and ruptured lines or vessels.

ATTACHMENT G-1

(Continued)

8. After the emergency, provide for treating, storing and disposing of recovered waste, contaminated soil or surface water or other material resulting from the release, fire or explosion.

9. Recovered hazardous material must be handled in accordance with hazardous waste regulations.

10. Ensure that no waste that may be incompatible with the released material is treated, stored or disposed of until cleanup is completed.

11. Clean and restock emergency equipment listed in the contingency plan before operations are resumed.

12. The Regional Administrator and state and local authorities will be notified that the affected area is in compliance before operations are resumed.

13. The time, date and details of any incident which requires implementing the contingency plan will be entered into the operating record.

14. Within 15 days after the incident, a written report will be submitted to the regional administrator including: name, telephone number and address of PPG Industries, date, time and type of incident, name and quantity of materials involved, extent of injuries, an assessment of actual or potential hazards to human health or the environment, and the estimated quantity and description of the recovered material that resulted from the incident.

ATTACHMENT G-2

SPCC PLAN

(Subject to Change)

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

OAK CREEK PLANT

COATINGS & RESINS

PPG INDUSTRIES, INC.

AUGUST, 1984

MANAGEMENT APPROVAL

This SPCC Plan will be implemented as herein described.

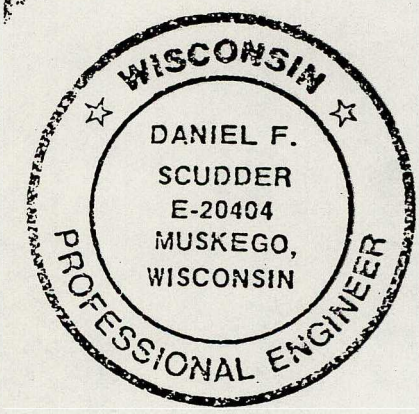
Signature N Marvich

Name N. Marvich

Title Plant Manager

CERTIFICATION

I hereby certify that I have examined the facility and attest that this SPCC Plan has been prepared in accordance with good engineering practices.



Daniel F. Scudder
Name of Registered Professional Engineer

Daniel F. Scudder
Signature of Registered Professional Engineer

Date 9/11/84 Registration No. E20404 State WI

PLAN UPDATE

SECTIONS UPDATED	RECERTIFICATION
	Name of Registered Professional Engineer Signature of Registered Professional Engir (seal) Date:
SECTIONS UPDATED	RECERTIFICATION
	Name of Registered Professional Engineer Signature of Registered Professional Engine (seal) Date:

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APPENDICES

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1.0 GENERAL

1.1 Facility Information

Address: PPG Industries, Inc.
Coatings & Resins Oak Creek Plant
10800 S. 13th Street
Oak Creek, WI 53134
(414) 764-6000

Parent Corp: PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
(412) 4343131

1.2 Statement of Policy

Consistent with the Environmental Control Policy, PPG Industries, Inc., the local management and personnel of the Oak Creek, Wisconsin Plant will take necessary and appropriate steps to avoid spills of oil, hazardous or toxic materials and when unavoidable spills occur, to prevent such materials from entering "navigable waters".

This Spill Prevention Control and Countermeasure (SPCC) Plan has been established to initiate a procedure of immediate action in the event of an oil or hazardous or toxic material spill. This plan shall also be utilized as a procedure for the prevention of spills through preventative maintenance, inspections and operating procedures for the receiving, storing and dispensing of oil and other materials and their products.

1.3 Legal Requirements

1.3.1 Federal Regulations

Part 112 of Title 40 of the Code of Federal Regulations requires the preparation of Spill Prevention Control and Countermeasure plans to prevent the discharge of oil into navigable waters of the United States. SPCC plans are to be updated at least every three years or when there are major facility changes which could affect spill prevention and control operations. This SPCC plan has been prepared for the Oak Creek Plant of PPG Industries, Inc. to meet the requirements of Part 112. The plan also applies SPCC procedures to control the accidental release of hazardous and toxic substances stored or used onsite.

Several important definitions related to spill prevention and control have been taken from the Code of Federal Regulations and are summarized here.

Oil Oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. A copy of the federal oil spill control regulations is included in Appendix A.

Hazardous Substance The elements and compounds listed in Tables 116.4A and B of Part 116: Designation of Hazardous Substances. (Copies of these tables are included in Appendix A).

Toxic Pollutant Those substances listed in 40 CFR 401.15. A list of substances is included in Appendix A.

Discharge Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping.

Person Includes an individual, firm, corporation, association, and a partnership.

Reportable Quantity The quantity of a designated hazardous substance which, if discharged in any 24-hour period, must be reported to an agency of the U.S. Government. Reportable quantities of hazardous materials are also listed in Appendix A.

Discharges of reportable quantities must be reported immediately. Failure to report such a discharge can result in a fine of up to $10,000 or imprisonment of up to one year, or both. The "person" responsible for spill prevention can be assessed a civil penalty of up to $5,000 per violation. Fines of up to $250,000 are possible if a discharge was the result of willful negligence or misconduct.

1.3.2 State Regulations

Wisconsin spill control regulations are listed in the Wisconsin Administrative Code Chapter NR 158, Contingency Plan for Emergency Actions in Response to the Discharge of Hazardous Substances. (See Appendix B for copy of the regulations). These regulations require a five part response to a hazardous substance discharge: 1) discovery and notification; 2) evaluation and initiation of action; 3) containment; 4) cleanup and disposal; and 5) restoration of the environment. The discharger must immediately notify the Wisconsin DNR of a hazardous substance discharge and immediately initiate actions to halt the discharge and minimize adverse environmental impact.

The state is responsible for overseeing all spill response activities and shall be prepared, with trained personnel, to initiate containment and cleanup operations if the discharger has not taken adequate steps.

Some important definitions are summarized here from the state regulations.

Discharge Discharge means, but is not limited to any spilling, leaking, pumping, pouring, emitting, emptying or dumping of a hazardous substance.

Discharger Discharger means the person or persons having possession of or control over a hazardous substance being discharged or who causes a hazardous discharge.

Hazardous Substance Hazardous substance means any substance or combination of substances, including wastes, of a solid, liquid, gaseous or semisolid form which, because of its quantity, concentration or physical, chemical or infectious characteristic, may cause, or significantly contribute to, an increase in mortality or an increase in serious irrevocable or incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment. Such substances may include, but are not limited to, those which are, to the degree determined by the department, toxic, corrosive, flammable, irritants, strong sensitizers or explosive.

Person Person means an individual, owner or operator, corporation, partnership, association, municipality, interstate agency or state agency.

Additional spill reporting requirements are contained in the general conditions for individual facilities with NPDES permits.

2.0 HISTORY OF POLLUTION INCIDENTS

Most spills at the Oak Creek Plant over the past ten years have been totally contained and not left plant property. Detailed information on the significant spills is summzarized in spill reports and memoranda stored in the plant environmental control files.

3.0 GENERAL PLANT POLLUTION POTENTIAL

3.1 Background

The original SPCC plan for the Oak Creek plant was prepared in 1975. Since that time, there have been major changes in both the manufacturing operations and spill control facilities at the plant. Some significant changes include expansion of the resin plant, construction of tank wagon loading stations, and construction of a runoff interceptor basin and numerous spill containment and control facilities.

This updated SPCC plan reflects the current operations and spill control features of the Oak Creek plant. It also identifies future plans to further upgrade spill control facilities and procedures. Various site plans are included in Appendix C which show the current and proposed facilities at the plant.

3.2 Plant Operation

PPG Industries operates a coatings and resins manufacturing plant at 10800 South 13th Street, Oak Creek, Wisconsin. The plant produces a wide variety of solvent- and water-based trade sale, industrial and automotive coatings and resins. Raw materials are received in bags (pigments), cans, 55 gallon drums, tank wagons and rail cars. Products are packaged in cans (one gallon, five gallon), 55 gallon drums, 300 to 400 gallon tote tanks and tank wagons. The plant handles numerous hazardous materials and is registered with the U. S. Environmental Protection Agency as a hazardous waste generation, treatment and storage facility.

The plant operates a solvent recovery still. Reclaimed solvent is reused onsite. Unreclaimed still bottoms are disposed at approved offsite hazardous waste management facilities. Other hazardous wastes generated onsite (such as filters, waste treatment plant sludges, bag house dust, and defective product) are also disposed at approved hazardous waste facilities.

Aqueous wastes are treated at the plant's Waste Treatment Center using physical/chemical treatment. Treated supernatant is discharged to the sanitary sewer along with sanitary waste from locker rooms and rest rooms.

Boiler and cooling tower blowdown is discharged with runoff from most of the facility process and storage areas through the plant's permitted WPDES Outfall 001. An interceptor basin at the outfall is used to settle out heavy materials and retain any floating organics before the water is discharged.

3.3 Site Drainage

The Oak Creek facility is located on approximately 40 acres of rural land. The Root River flows as close as 1000 feet south of the southwest corner of the plant. Most runoff from the plant drains toward the east to a marshy area along the Chicago, Milwaukee, St. Paul and Pacific Railroad tracks and then south to the Root River. The runoff from the southwest and west side of the plant drains to a ditch along South 13th Street and then south to the Root River.

There are three main drainage ditches along the east side of the plant. The north ditch drains the grassy area along the north side of the plant. This area contains no process activities except the unloading of fuel oil into a 100,000 gallon tank. The ditch drains directly into the marsh area along the railroad.

The main process and storage areas of the plant and the employee parking area drain through a storm sewer system to the interceptor basin at Outfall 001. These areas (excluding the employee parking area) and some tank wagon parking areas have yard drains that are normally plugged to keep any spills from leaving the plant site. The drains are opened during rainfall events and promptly plugged after runoff ends. Runoff is monitored as part of the plant's WPDES permit requirements. A continuous spill monitor is also used at the interceptor to detect soluble organic spills and alert plant personnel. A gate can be closed to contain the spill onsite and allow proper disposal. Roof runoff from most production buildings drain directly to this storm sewer system. (NOTE: The current TOD spill detector is not operating and will soon be replaced with a Total Carbon spill detector).

A small portion of the southeast corner of the plant drains directly to the marsh area along a railroad spur.

The south side of the plant along the shipping and receiving departments, and the trailer and tank wagon parking areas drain directly to a ditch running along the south side of the plant fence line and to the drainage ditch along S. 13th Street. The west side of the plant containing the main office building and lawn area also drains to the S. 13th Street ditch.

Rainfall around the underground tank farm will either drain into the fill around the tanks or into the spill collection trench system. Water percolating into the ground is collected in the tank farm underdrain system. This water can be drained to an outfall if not contaminated, or pumped to the sanitary sewer or the Waste Treatment Center if it is contaminated. Water collected in the spill trenches drains to a spill retention pond. General runoff is pumped to the sanitary sewer or to waste treatment. Any spills collected are managed as hazardous waste.

3.4 Potential Spills

Spills have the potential of occurring in almost all areas of the plant yard. Tank wagons of raw material or finished product travel through all sections of the yard. Drums and tote tanks of raw materials, products, and waste are stored on the north and the east sides of the plant.

The quantity of material spilled could vary from a few gallons to the volume of a tank wagon or railcar. In most areas of the plant, a spill of any size would be contained at the location of the spill. This is because the only drainage from most paved areas in the plant yard is through the storm sewer system, and discharge to that system is prevented in dry weather by the use of the storm sewer plugs. During wet weather conditions, when the storm sewer plugs have been removed, the interceptor basin provides an opportunity to detect and contain spills that may occur in the yard. Railcar or tank wagon spills at the tank farm would be drained to the spill retention pond or into the underdrain system and be contained.

Two diesel fuel loading and unloading areas do not have spill containment. The unloading area adjacent to the storage tank is not paved or diked. Spills would enter the ground or the north drainage ditch. The motor fuel loading area for over-the-road trucks is not diked. Spills in this area could enter the soil or drain east towards the runoff interceptor basin.

4.0 SPILL PREVENTION AND CONTROL MEASURES

4.1 Inspection and Maintenance Procedures

The plant has implemented a daily and periodic environmental inspection program to assure that all equipment is in good working order and that proper procedures are being followed plantwide. The Plant Environmental Compliance Inspection Schedule is included in Appendix D. Any problems identified during these regularly scheduled inspections will be attended to immediately.

4.2 Spill Control Facilities

4.2.1 Storage Areas

There are a number of storage areas around the plant for raw materials, finished products and wastes. This section discusses those areas and future plans for upgrading spill control where needed. The areas are shown in Appendix C.

1. Raw Material Tank Farm

Most raw material bulk storage tanks are located in the tank farm south of the Resin Plant. All tanks are designed properly for each material being stored. Most of the above ground tanks at the tank farm have concrete pads and curbs to contain minor spills, and route large spills to the spill collection trench. Those tanks with no concrete containment will allow some spilled material to enter the ground. However, it will be contained in the tank farm underdrain system.

Future. An engineering study has been initiated to evaluate past spill problems and identify methods for improving spill control in this area. An Underground Tank Management Program is being developed to address leak prevention and detection for all underground tanks at Oak Creek.

2. Phthalic Anhydride Storage. This tank is located east of the Resin plant and is not diked. However, this material will freeze if a spill develops. (Approximate freezing point is 280°F.)

3. D.L. Solvent and Cationic Distillate Storage. These materials are stored in a concrete diked area adjacent to the air pollution scrubber. The dike is adequate to contain any spills.

4. Fuel Oil Storage. Fuel oil is stored in a 100,000 gallon above ground tank and a 5,000 gallon underground tank. The above ground tank has an earthen dike to contain any spills.

Future. The Underground Tank Management Program will address leak prevention and detection for the underground tank.

5. Heat Transfer Oil Spills could occur at the Utility Center from mechanical seal failure or line rupture. This area is currently curbed and filled with crushed limestone. The containment volume is adequate to hold a spill of the entire system.

6. Catalyst Storage Building Spills resulting from drummed materials stored in this building would be very small. Since materials are stored in new containers, leaks are unlikely unless a container is dropped during handling. Spills during handling would be cleaned up immediately.

7. Dust Collectors There are several dust collectors around the plant where pigment dust is collected. These collectors are inside individual buildings to contain fugitive dust and to keep any spills from being washed away.

8. Compactors. Two large compactors are located on the north and south side of the Paint Plant. Both are curbed. Collected rainwater is either pumped to Waste Treatment or drains to the storm sewer. A compactor east of the Resin Plant does not have any containment.

9. TiO_2 Slurry Storage. TiO_2 slurry is stored at the railway dock inside the Raw Material Warehouse. Any spills will drain to a sump at the end of the tracks.

10. Resin Storage. Any sizeable spills which may occur from the Resin Storage Tanks in the Paint Plant or the Resin Blending Tanks in the Resin Plant will reach the yard between the Resin Plant and the Raw Material Warehouse. The majority of the spill will be contained in the area surrounding Catch Basin #12. This drain is plugged during dry weather to contain any spills that reach the yard.

11. Waste Treatment Building All runoff or leakage from the tanks inside this building will flow to a sump immediately south of the building and be contained. The doorway at the north side of the building is inclined to prevent flow outward and the building joints are sealed. A tank overflow header system is used to contain tank overflows.

12. Transformer Room (Resin Plant). Provisions have been made to contain any spill of the polychlorinated biphenyl transformer fluid in the transformer room. The capacity of the spill containment curbing equals the total capacity of both transformer systems.

13. Raw Materials in Drum/Bags. Drums are stored in the raw material warehouse and outside in the drum storage areas. The drum storage areas are north of the raw material warehouse, and at the east end of the plant. Yard plugs or containment structures are used to contain any spills although spills are not likely because the drums are new. Leaks or spills would most likely occur during handling when plant personnel would be present to contain and pick up the spill. Bagged raw materials are stored inside the warehouses where spills can be easily cleaned up.

14. Finished Products. These are stored in new containers in the Finished Good warehouse west of the paint plant. Containment is not provided, but again, spills are likely only during handling.

15. Hazardous Waste Drums. Hazardous waste drums are stored on the northern portion of the drum storage pad east of the Resin Plant. The pad will contain at least 10% of the liquid waste stored in the drums, plus rainfall from the 25-year storm. The pad is drained to the interceptor basin only after inspection verifies no contamination.

16. Paint Plant Mix Tanks. Mixing tanks for industrial paint and trade paint manufacturing are tied into separate overflow headers. These headers drain to two overflow tanks with level alarms to detect any material entering them.

17. Waste for Solvent Still. Solvent based waste in drums is stored east of the resin plant receiving dock. There is no containment in this area.

Future Requirements for containment are being evaluated at this time.

4.2.2 Material Transfer

There are 15 principal locations throughout the plant where raw materials are delivered and finished goods and waste materials are loaded. These areas are listed in Tables 1 and 3 and shown in Appendix C.

There are two main transfer stations at the raw material tank farm. Spills in these areas are controlled by drainage to the trenches and eventually to the spill retention pond if the spill is large enough.

All buried piping is coated and protected against corrosion. Pipe supports are properly designed to minimize abrasion and corrosion and to allow for expansion and contraction. All piping, valves, joints, etc., are under constant informal observation by operating personnel.

Table 1

Unloading Areas

No.	Location	Material	Containment
1	Receiving Dock	Drums, pails, pigment bags	Not required
2	Railway Dock	TiO_2 slurry in railcars and tank wagons	Yes
3	Resin Yard	Resins in tank wagons	Yes
4	Tank Farm	Solvents, monomers in tank wagons	Yes
5	East of Resin Plant	Phthalic anhydride	Not required
6	North of Stripper bldg.	Resin in tank wagons (used infrequently)	No 1)
7	Fuel Oil Tank	Fuel oil in tank wagons	No 1)

1) Requirements for spill containment in these areas are currently being evaluated.

Table 2

Loading Areas

No	Location	Material	Containment
1	Shipping	Drums, pails, cans, totes	Not required
2	Tank wagon loading	Industrial coatings	Yes
3	Tank wagon loading	Cationic resins & primer	Yes
4	Tank wagon loading	Misc. resins & coatings	Yes
5	Motor fuel	Fuel oil for over-the-road trucks	No[1])
6	Waste Treatment (tank wagon loading)	Bulk liquid waste	Yes
7	Hazardous Waste Drum Pad	Hazardous waste in drums	Yes
8	East of Resin Plant (Tank wagon loading)	Cationic distillate	No[1])

1) Requirements for spill containment in these areas are currently being evaluated.

5.0 DISCHARGE CONTINGENCY PLAN

5.1 Initial Response

When a spill occurs, the first person on the scene evaluates the situation and makes an immediate assessment as to whether or not a fire or explosion is likely. He must also determine whether there is a chemical hazard to personnel in the immediate area. The fire alarm system is activated if necessary.

The first containment step taken is to try to quickly minimize the effects of the spill. The situation and type(s) of materials involved dictate what action is taken. For example, if a tank is overflowing, the line leading into the tanks is valved closed to prevent additional spillage. If a spill is in danger of entering a stormwater catchbasin, sorbent materials or sand is used to ring the spill and prevent it from entering the catchbasin and eventually leaving plant property. After these initial steps have been taken, this person contacts the nearest supervisor and the Safety Department or Environmental Coordinator.

Supervisory personnel go through the same process of evaluating the circumstances and assessing hazards. They then determine the appropriate response to assure containment of the spill. No attempt is made to pick up the spill until it is first under control, contained, and personnel safety is assured.

5.2 Spill Cleanup Procedures

Once the above criteria are met, the spill cleanup is begun following SOP 0138, "Emergency Spill Control" (See Appendix E), under the direction of supervisory personnel. Personnel are deployed in accordance with the urgency and size of the effort required. Employees who normally work in the area of the spill and the rotating laborers are the first workers called in to work on spill recovery. Workers are pulled in from other parts of the plant as necessary. The supervisors directing the cleanup effort will instruct employees regarding personnel protective equipment which may be required.

Small spills can be cleaned up with a mop and squeegee. Leaking drums are either put into overpacks, or positioned to restrict or stop the leak, patched onsite and refilled into DOT 17H drums under controlled conditions.

Two portable spill carts are available for spill containment and cleanup activities. One cart is located on the first floor of the paint manufacturing area, and one is on the first floor of the cationic blend building. For location of the spill carts and a complete list of spill control equipment see Appendix F.

Contaminated areas will be closed to operation (all feed valves closed, pumps locked out) until the area is clean. All cleanup materials, including rinses and any contaminated soil will be handled as hazardous wastes when appropriate.

All equipment used in the cleanup operation will be thoroughly

decontaminated and returned to its appropriate storage location after being cleaned. The Spill Control carts will be checked for completeness before being closed and any missing items will be replaced.

5.3 Major Spill Emergency

If there is a major spill that would threaten the safety of plant personnel, could cause major plant damage or could lead to major environmental damage, the plant alarm system will be activated to alert all facility personnel that an emergency situation does exist. All personnel within the facility who do not have specific emergency response duties will be required to evacuate the premises via the evacuation routes. All non-PPG personnel who are inside of the facility at the time of the incident will be directed to the parking lot via the safest route by the sponsoring employee with whom the visitation is being made.

In the case of a large, flammable spill, the fire department would be called. Vacuum trucks would be called in to pick up any large spills.

5.4 Notification and Recordkeeping

External reporting may be required for spills of as little as one pound; however, any spill involving more than ten gallons of material must be internally documented at a minimum. The materials involved and amount released will determine whether agency notification is also necessary. Outside agency notification is required for the following types of spills:

Oil. Discharge greater than 1000 gallons to surface water or the second of any spill within a 12 month period causing a violation of water quality standards, a film or sheen on the water surface or an oil sludge beneath the surface.

Hazardous Substances (Clean Water Act). Discharge to surface water exceeding reportable quantities. (The reportable quantity of hazardous waste is one pound.)

Hazardous/Toxic Substances, Hazardous Waste, Hazardous Air Pollutant (Superfund). Nonroutine, unexpected or accidental releases to air, water or ground exceeding reportable quantities.

WPDES Outfall. A spill or accidental release of any pollutant exceeding a limit in the permit or not limited in the permit or exceeding a limit in the permit.

Sanitary Sewer Discharge. An upset in operations that causes temporary noncompliance with MMSD Rules and Regulations.

The Environmental Coordinator maintains a list of reportable quantities and a copy of the WPDES and sanitary sewer discharge regulations to be consulted in the event of a spill.

The Environmental Coordinator will follow the following procedure to report a spill which requires agency notifications:

A. Contact the Environmental Engineering Dept. at Allison Park

and review the spill circumstances.

Manager of Environmental Control
Larry Streff: 6 X 844 X 402
Home: 412-421-2215

Environmental Engineer - Water
Kevin Fay: 6 X 855 X 408
Home: 412-487-4070

Contact the appropriate agencies depending on the circumstances of the spill:

EPA 24-Hour National Response Center: 1-800-424-8802

DNR 24-Hour Emergency Number: 1-608-266-3232

MMSD (Sanitary sewer spill):
Business Hours: 272-5100
All other times: 764-1045 (South Shore Plant)
U. S. Coast Guard: 292-3165
City of Oak Creek: 764-5200 (Water and Sewer Dept.)
762-3030 (Fire Dept.)

The Environmental Coordinator will document all notifications, recording time of notification, name and title of government representative. This information will be included in the C&R Group Environmental Spill Report (see Appendix G) which the Environmental Coordinator will file within five working days.

Any oil spills reported will also be documented by written report to the USEPA Regional Administrator within 60 days along with a copy of this SPCC Plan.

Spills requiring MMSD notification must be followed with a written report within 5 days. Verbal reports to the DNR should be documented in writing within 5 days.

All spill reports should document the following issues: 1) name of material spilled and its chemical components; 2) time spill began and when it was stopped; 3) amount spilled and how much was lost to surface waters, soil or air; and 4) why spill occurred and steps to be taken to prevent future spills.

The Environmental Coordinator will maintain a spill incidents file documenting all spills, including those where agency notification was not required.

Oak Creek's Spill Prevention Control and Countermeasure Plan will be reviewed and updated as required. This will be done at least once every three years or upon the following:

1) Change in applicable regulations
2) Failure of the plan to handle an emergency

3) Change in Emergency Coordinators
4) Change in Emergency Equipment
5) Major plant modifications affecting spill control

6.0 PLANT SECURITY

The entire Oak Creek Plant is fenced. Entrance is controlled through five gates (reception area, employee entrance, truck gate, railcar gate and contractor's gate) at all times. Security guards are onsite at all times. The plant is minimally staffed by one person from the maintenance department.

7.0 PERSONNEL TRAINING

General spill training is introduced to all new employees during new employee orientation. Special spill training meetings are held to update plant personnel on new equipment and procedures. The plant Emergency Squad has had special spill response training as part of its general disaster training program.

The plant maintains a file of Standard Operating Procedures (SOPs) describing the approved, safe method for performing certain tasks. These include subjects such as tank wagon filling and unloading, and reporting of spills. There are SOPs applicable to spill control included in Appendix E of this SPCC Plan.

SOPs are reviewed periodically with all employees during safety meetings.

ATTACHMENT G-5

EMERGENCY EQUIPMENT AVAILABLE IN OUTDOOR CONTAINER STORAGE AREAS (ITEMS 4 AND 5)

(SUBJECT TO CHANGE)

EMERGENCY EQUIPMENT FOR OUTDOOR HAZARDOUS WASTE CONTAINER STORAGE AREAS

Equipment	Location
Fire Hydrants	Three in immediate vicinities
Fire Extinguishers	Two 20-lb. Type ABC inside Waste Treatment Center (WTC). One 30-lb. Type ABC outside WTC.
Fire Hose	WTC south entrance
Fire Blanket	WTC south entrance
Fire Alarm	WTC south entrance (manual)
Safety Shower/Eye Wash	Two inside WTC One outside WTC
Communication Equipment	Telephone inside WTC Walkie-talkies for personnel when working in storage area on east side of plant.

APPENDIX A

Federal Spill Control Regulations

tablished thereunder can function independently, in conjunction with each other, or in conjunction with the National and Regional Response Teams established by the National Oil and Hazardous Materials Pollution Contingency Plan.

§ 109.4 Relationship to Federal response actions.

The National Oil and Hazardous Materials Pollution Contingency Plan provides that the Federal on-scene commander shall investigate all reported spills. If such investigation shows that appropriate action is being taken by either the discharger or non-Federal entities, the Federal on-scene commander shall monitor and provide advice or assistance, as required. If appropriate containment or cleanup action is not being taken by the discharger or non-Federal entities, the Federal on-scene commander will take control of the response activity in accordance with section 11(c)(1) of the Federal Act.

§ 109.5 Development and implementation criteria for State, local and regional oil removal contingency plans.

Criteria for the development and implementation of State, local and regional oil removal contingency plans are:

(a) Definition of the authorities, responsibilities and duties of all persons, organizations or agencies which are to be involved or could be involved in planning or directing oil removal operations, with particular care to clearly define the authorities, responsibilities and duties of State and local governmental agencies to avoid unnecessary duplication of contingency planning activities and to minimize the potential for conflict and confusion that could be generated in an emergency situation as a result of such duplications.

(b) Establishment of notification procedures for the purpose of early detection and timely notification of an oil discharge including:

(1) The identification of critical water use areas to facilitate the reporting of and response to oil discharges.

(2) A current list of names, telephone numbers and addresses of the responsible persons and alternates on call to receive notification of an oil discharge as well as the names, telephone numbers and addresses of the organizations and agencies to be notified when an oil discharge is discovered.

(3) Provisions for access to a reliable communications system for timely notification of an oil discharge and incorporation in the communications system of the capability for interconnection with the communications systems established under related oil removal contingency plans, particularly State and National plans.

(4) An established, prearranged procedure for requesting assistance during a major disaster or when the situation exceeds the response capability of the State, local or regional authority.

(c) Provisions to assure that full resource capability is known and can be committed during an oil discharge situation including:

(1) The identification and inventory of applicable equipment, materials and supplies which are available locally and regionally.

(2) An estimate of the equipment, materials and supplies which would be required to remove the maximum oil discharge to be anticipated.

(3) Development of agreements and arrangements in advance of an oil discharge for the acquisition of equipment, materials and supplies to be used in responding to such a discharge.

(d) Provisions for well defined and specific actions to be taken after discovery and notification of an oil discharge including:

(1) Specification of an oil discharge response operating team consisting of trained, prepared and available operating personnel.

(2) Predesignation of a properly qualified oil discharge response coordinator who is charged with the responsibility and delegated commensurate authority for directing and coordinating response operations and who knows how to request assistance from Federal authorities operating under existing national and regional contingency plans.

(3) A preplanned location for an oil discharge response operations center and a reliable communications system for directing the coordinated overall response operations.

(4) Provisions for varying degrees of response effort depending on the severity of the oil discharge.

(5) Specification of the order of priority in which the various water uses are to be protected where more than one water use may be adversely affected as a result of an oil discharge and where response operations may not be adequate to protect all uses.

(e) Specific and well defined procedures to facilitate recovery of damages and enforcement measures as provided for by State and local statutes and ordinances.

§ 109.6 Coordination.

For the purposes of coordination, the contingency plans of State and local governments should be developed and implemented in consultation with private interests. A copy of any oil removal contingency plan developed by State and local governments should be forwarded to the Council on Environmental Quality upon request to facilitate the coordination of these contingency plans with the National Oil and Hazardous Materials Pollution Contingency Plan.

PART 110—DISCHARGE OF OIL

Sec.

110.1 Definitions.
110.2 Applicability.
110.3 Discharge into navigable waters harmful.
110.4 Discharge into contiguous zone harmful.
110.5 Discharge prohibited.
110.6 Exception for vessel engines.
110.7 Dispersants.
110.8 Demonstration projects.
110.9 Notice.

AUTHORITY: Secs. 311(b) (3) and (4) and 501(a) of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251 et seq.).

SOURCE: 41 FR 49810, Nov. 11, 1976, unless otherwise noted.

§ 110.1 Definitions.

As used in this part, the following terms shall have the meaning indicated below:

(a) "Oil" means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil;

(b) "Discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping;

(c) "Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

(d) "Public vessel" means a vessel owned or bareboat chartered and operated by the United States, or by a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce;

(e) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands;

(f) "Person" includes an individual, firm, corporation, association, and a partnership;

(g) "Contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention on the Territorial Sea and the Contiguous Zone;

(h) "Onshore facility" means any facility (including, but not limited to motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

(i) "Offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States other than a vessel or public vessel;

(j) "Applicable water quality standards" means State water quality standards adopted by the State and approved by EPA pursuant to section 303 of the Federal Act or promulgated by EPA pursuant to that section;

(k) "Federal Act" means the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251, et seq;

(l) "Sheen" means an iridescent appearance on the surface of water;

(m) "Sludge" means an aggregate of oil or oil and other matter of any kind in any form other than dredged spoil having a combined specific gravity equivalent to or greater than water;

§ 110.2 Applicability.

The regulations of this part apply to the discharge of oil into or upon the waters of the United States, adjoining shorelines or into or upon the waters of the contiguous zone, prohibited by section 311(b)(3) of the Federal Act.

§ 110.3 Discharge into navigable waters harmful.

For purposes of section 311(b) of the Federal Act, discharges of such quantities of oil into or upon the navigable waters of the United States or adjoining shorelines determined to be harmful to the public health or welfare of the United States, at all times and locations and under all circumstances and conditions, except as provided in § 110.6 of this part, include discharges which:

(a) Violate applicable water quality standards, or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

§ 110.4 Discharge into contiguous zone harmful.

For purposes of section 311(b) of the Federal Act, discharges of such quantities of oil into or upon the waters of the contiguous zone determined to be harmful to the public health or welfare of the United States, at all times and locations and under all circumstances and conditions, except as provided in § 110.6, include discharges which:

(a) Violate applicable water quality standards in navigable waters of the United States, or

(b) Cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

§ 110.5 Discharge prohibited.

As provided in section 311(b)(3) of the Federal Act, no person shall discharge or cause or permit to be discharged into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone any oil, in harmful quantities as determined in §§ 110.3 and 110.4 except as the same may be permitted in the contiguous zone under Article IV of the International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended.

§ 110.6 Exception for vessel engines.

For purposes of section 311(b) of the Federal Act, discharges of oil from a properly functioning vessel engine are not deemed to be harmful; but such oil accumulated in a vessel's bilges shall not be so exempt.

§ 110.7 Dispersants.

Addition of dispersants or emulsifiers to oil to be discharged which would circumvent the provisions of this part is prohibited.

§ 110.8 Demonstration projects.

Notwithstanding any other provisions of this part, the Administrator of the Environmental Protection Agency may permit the discharge of oil into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, in connection with research, demonstration projects, or studies relating to the prevention, control, or abatement of oil pollution.

§ 110.9 Notice.

Any person in charge of any vessel or onshore or offshore facility shall, as soon as he has knowledge of any discharge of oil from such vessel or facility in violation of § 110.5, immediately notify the appropriate agency of such discharge in accordance with such procedures as the Secretary of Transportation may prescribe. The procedures for such notice are set forth in U.S. Coast Guard regulations, 33 CFR Part 153, Subpart B, 41 FR 12628 et seq. (March 25, 1976).

PART 112—OIL POLLUTION PREVENTION

Sec.
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APPENDIX—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

AUTHORITY: Secs. 311(j)(1)(C), 311(j)(2), 501(a), Federal Water Pollution Control Act (Sec. 2, Pub. L. 92-500, 86 Stat. 816 et seq. (33 U.S.C. 1251 et seq.)); Sec. 4(b), Pub. L. 92-500, 86 Stat. 897; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 15623, 3 CFR 1966-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR, unless otherwise noted.

SOURCE: 38 FR 34165, Dec. 11, 1973, unless otherwise noted.

§ 112.1 General applicability.

(a) This part establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing or consuming oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in section 313 (86 Stat. 875) departments, agencies, and instrumentalities of the Federal government are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) This part does not apply to:

(1) Facilities, equipment or operations which are not subject to the jurisdiction of the Environmental Protection Agency, as follows:

(i) Onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines. This determination shall be based solely upon a consideration of the geographical, locational aspects of the facility (such as proximity to navigable waters or adjoining shorelines, land contour, drainage, etc.) and shall exclude consideration of manmade features such as dikes, equipment or other structures which may serve to restrain, hinder, contain, or otherwise prevent a discharge of oil from reaching navigable waters of the United States or adjoining shorelines; and

(ii) Equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) Those facilities which, although otherwise subject to the jurisdiction of the Environmental Protection Agency, meet both of the following requirements:

(i) The underground buried storage capacity of the facility is 42,000 gallons or less of oil, and

(ii) The storage capacity, which is not buried, of the facility is 1,320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and

pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State or local laws.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.2 Definitions.

For the purposes of this part:

(a) "Oil" means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

(b) "Discharge" includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping. For purposes of this part, the term "discharge" shall not include any discharge of oil which is authorized by a permit issued pursuant to Section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 816 et seq., 33 U.S.C. 1251 et seq.).

(c) "Onshore facility" means any facility of any kind located in, on, or under any land within the United States, other than submerged lands, which is not a transportation-related facility.

(d) "Offshore facility" means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

(e) "Owner or operator" means any person owning or operating an onshore facility or an offshore facility, and in the case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment.

(f) "Person" includes an individual, firm, corporation, association, and a partnership.

(g) "Regional Administrator", means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

(h) "Transportation-related" and "non-transportation-related" as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24080.

(i) "Spill event" means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR Part 110.

(j) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(k) The term "navigable waters" of the United States means "navigable waters" as defined in section 502(7) of the FWPCA, and includes:

(1) All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92-500), and tributaries of such waters;

(2) Interstate waters;

(3) Intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) Intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

(l) "Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used as a means of transportation on water, other than a public vessel.

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this part that have discharged or, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in

writing and in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this part, and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Owners or operators of onshore and offshore mobile or portable facilities, such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owners or operators of such facility need not prepare a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan may be a general plan, prepared in accordance with § 112.7, using good engineering practice. When the mobile or portable facility is moved, it must be located and installed using the spill prevention practices outlined in the SPCC Plan for the facility. No mobile or portable facility subject to this regulation shall operate unless the SPCC Plan has been implemented. The SPCC Plan shall only apply while the facility is in a fixed (non-transportation) operating mode.

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraph (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraph (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully comply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f)(1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion

of tests or studies, installation and operation of any necessary equipment or other preventive measures.

In addition, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f)(2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an extension of time has not been expressly authorized.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12657, Mar. 26, 1976]

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, reportable under section 311(b)(5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Date and year of initial facility operation;

(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is necessary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

[38 FR 34165, Dec. 11, 1973, as amended at 41 FR 12658, Mar. 26, 1976]

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shore lines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and (2) if such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties for violation of Oil Pollution Prevention Regulations.

Owners or operators of facilities subject to § 112.3 (a), (b) or (c) who violate the requirements of this Part 112 by failing or refusing to comply with any of the provisions of § 112.3, § 112.4 or § 112.5 shall be liable for a civil penalty of not more than $5,000 for each day such violation continues. Civil penalties shall be imposed in accordance with procedures set out in Part 114 of this Subchapter D.

(Secs. 311(j), 501(a), Pub. L. 92-500, 86 Stat. 868, 885 (33 U.S.C. 1321(j), 1361(a)))

[39 FR 31602, Aug. 29, 1974]

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

(1) Onshore facilities—

(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil;

(ii) Curbing;

(iii) Culverting, gutters or other drainage systems;

(iv) Weirs, booms or other barriers;

(v) Spill diversion ponds;

(vi) Retention ponds;

(vii) Sorbent materials.

(2) Offshore facilities—

(i) Curbing, drip pans;

(ii) Sumps and collection systems.

(d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR Part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

(e) In addition to the minimal prevention standards listed under § 112.7(c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) *Facility drainage (onshore); (excluding production facilities).* (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraphs (e)(2)(iii) (B), (C) and (D) before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore); (excluding production facilities).* (i) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an inplant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR Part 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore); (excluding production facilities).* (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore).* (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore)*—(i) *Definition.* An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage.* (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraphs (e)(2)(iii) (B), (C), and (D). Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks.* (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(*1*) Adequate tank capacity to assure that a tank will not overfill should a pumper/gauger be delayed in making his regular rounds.

(*2*) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(*3*) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(*4*) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, drip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be exained often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(6) *Oil drilling and workover facilities (onshore).* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP

assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any well-head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems

have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent over pressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good operating condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC

Plan for that facility. Such briefings should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

APPENDIX—MEMORANDUM OF UNDERSTANDING BETWEEN THE SECRETARY OF TRANSPORTATION AND THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) "Non-transportation-related onshore and offshore facilities" means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding inline or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) "Transportation-related onshore and offshore facilities" means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a nontransportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the rights-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

PART 113—LIABILITY LIMITS FOR SMALL ONSHORE STORAGE FACILITIES

Subpart A—Oil Storage Facilities

Sec.

113.1 Purpose.
113.2 Applicability.
113.3 Definitions.
113.4 Size classes and associated liability limits for fixed onshore oil storage facilities, 1,000 barrels or less capacity.
113.5 Exclusions.
113.6 Effect on other laws.

AUTHORITY: Sec. 311(f)(2), 86 Stat. 867, 33 U.S.C. 1251 (1972).

SOURCE: 38 FR 25440, Sept. 13, 1973, unless otherwise noted.

Subpart A—Oil Storage Facilities

§ 113.1 Purpose.

This subpart establishes size classifications and associated liability limits for small onshore oil storage facilities with fixed capacity of 1,000 barrels or less.

§ 113.2 Applicability.

This subpart applies to all onshore oil storage facilities with fixed capacity of 1,000 barrels or less. When a discharge to the waters of the United States occurs from such facilities and when removal of said discharge is performed by the United States Government pursuant to the provisions of subsection 311(c)(1) of the act, the liability of the owner or operator and the facility will be limited to the amounts specified in § 113.4.

§ 113.3 Definitions.

As used in this subpart, the following terms shall have the meanings indicated below:

(a) "Aboveground" storage facility means a tank or other container, the bottom of which is on a plane not more than 6 inches below the surrounding surface.

(b) "Act" means the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1151, et seq.

(c) "Barrel" means 42 United States gallons at 60 degrees Fahrenheit.

(d) "Belowground" storage facility means a tank or other container located other than as defined as "Aboveground".

(e) "Discharge" includes, but is not limited to any spilling, leaking, pumping, pouring, emitting, emptying or dumping.

(f) "Onshore Oil Storage Facility" means any facility (excluding motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States, other than submerged land.

(g) "On-Scene Coordinator" is the single Federal representative designated pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan and identified in approved Regional Oil and Hazardous Substances Pollution Contingency Plans.

(h) "Oil" means oil of any kind or in any form, including but no limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

(i) "Remove" or "removal" means the removal of the oil from the water and shorelines or the taking of such other actions as the Federal On-Scene Coordinator may determine to be necessary to minimize or mitigate damage to the public health or welfare, including but not limited to, fish, shellfish,

wildlife, and public and private property, shorelines, and beaches.

Additionally, the terms not otherwise defined herein shall have the meanings assigned them by section 311(a) of the act.

§ 113.4 Size classes and associated liability limits for fixed onshore oil storage facilities, 1,000 barrels or less capacity.

Unless the United States can show that oil was discharged as a result of willful negligence or willful misconduct within the privity and knowledge of the owner or operator, the following limits of liability are established for fixed onshore facilities in the classes specified:

(a) Aboveground storage.

Size class	Capacity (barrels)	Limit (dollars)
I	Up to 10	4,000
II	11 to 170	60,000
III	171 to 500	150,000
IV	501 to 1,000	200,000

(b) Belowground storage.

Size class	Capacity (barrels)	Limit (dollars)
I	Up to 10	5,200
II	11 to 170	78,000
III	171 to 500	195,000
IV	501 to 1,000	260,000

§ 113.5 Exclusions.

This subpart does not apply to:

(a) Those facilities whose average daily oil throughout is more than their fixed oil storage capacity.

(b) Vehicles and rolling stock.

§ 113.6 Effect on other laws.

Nothing herein shall be construed to limit the liability of any facility under State or local law or under any Federal law other than section 311 of the Act, nor shall the liability of any facility for any charges or damages under State or local law reduce its liability to the Federal Government under section 311 of the Act, as limited by this subpart.

PART 114—CIVIL PENALTIES FOR VIOLATION OF OIL POLLUTION PREVENTION REGULATIONS

NON-TRANSPORTATION RELATED ONSHORE AND OFFSHORE FACILITIES

Sec.

114.1 General applicability.
114.2 Violation.
114.3 Determination of penalty.
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114.9 Conduct of hearing.
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114.11 Appeal to Administrator.

AUTHORITY: Secs. 311(j), 501(a), Pub. L. 92-500, 86 Stat. 868, 885 (33 U.S.C. 1321(j), 1361(a)).

SOURCE: 39 FR 31602, Aug. 29, 1974, unless otherwise noted.

NON-TRANSPORTATION RELATED ONSHORE AND OFFSHORE FACILITIES

§ 114.1 General applicability.

Owners or operators of facilities subject to § 112.3 (a), (b) or (c) of this subchapter who violate the requirements of Part 112 of this Subchapter D by failing or refusing to comply with any of the provisions of § 112.3, 112.4, or 112.5 of this subchapter shall be liable for a civil penalty of not more than $5,000 for each day such violation continues. Civil penalties shall be assessed and compromised in accordance with this Part. No penalty shall be assessed until the owner or operator shall have been given notice and an opportunity for hearing in accordance with this part.

§ 114.2 Violation.

Owners or operators of facilities shall be liable for a civil penalty for noncompliance with the requirements of Part 112 of this subchapter, including but not limited to failure to:

(a) Prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with § 112.3 of this subchapter;

(b) Have a SPCC plan certified by a Registered Professional Engineer as required by § 112.3 of this subchapter;

(c) Implement the SPCC plan as required by § 112.3 of this subchapter;

(d) Submit information after a spill as required by § 112.4 of this subchapter;

(e) Amend plan as required by § 112.4 of this subchapter;

(f) Implement amendment as required by § 112.4 of this subchapter;

(g) Amend plan after change in facility design as required by § 112.6 of this subchapter;

(h) Review plan every three years as required by § 112.5 of this subchapter;

(i) Amend plan after review as required by § 112.5; or

(j) Have amendment certified as required by § 112.5 of this subchapter and implemented.

§ 114.3 Determination of penalty.

(a) In determining the amount of the penalty to be assessed the following factors shall be considered:

(1) Gravity of the violation; and

(2) Demonstrated good faith efforts to achieve rapid compliance after notification of a violation.

(b) The amount of the civil penalty to be assessed may be settled by compromise at any stage of the proceedings.

(c) Civil penalties may be assessed by the Regional Administrator where there is no request for a hearing pursuant to § 114.5.

§ 114.4 Notice of Violation.

The Notice of Violation shall be sent to the person charged with a violation and shall specify the:

(a) Date of issuance;

(b) Nature of violation, including the law or regulation that he is charged with violating;

(c) Amount of the maximum penalty;

(d) Amount of the proposed civil penalty;

(e) The right to present written explanations, information or any materials in answer to the charges or in mitigation of the penalty, or bearing on the person's efforts to achieve compliance after notification of the violation;

(f) Manner of the payment of any money which may be paid to the United States;

(g) Right to request a hearing; and

(h) The procedures for requesting a hearing including the right to be represented by counsel.

§ 114.5 Request for hearing.

Within thirty (30) days of the date of receipt of a Notice of Violation, the person named in the Notice may request a hearing by submitting a written request signed by or on behalf of such person by a duly authorized officer, director, agent, or attorney-in-fact, to the Regional Administrator.

(a) Requests for hearings shall:

(1) State the name and address of the person requesting the hearing;

(2) Enclose a copy of the Notice of Violation; and

(3) State with particularity the issues to be raised by such person at the hearing.

(b) After a request for hearing which complies with the requirements of paragraph (a) of this section has been filed, a hearing shall be scheduled for the earliest practicable date.

(c) Extensions of the time for the commencement of the hearing may be granted for good cause shown.

§ 114.6 Presiding Officer.

The hearing shall be conducted by the Presiding Officer. The Regional Administrator may designate any attorney in the Environmental Protection Agency to act as the Presiding Officer. No person shall serve as a Presiding Officer where he has any prior connection with the case including without limitation the performance of investigative or prosecuting functions or any other such functions. The Presiding Officer appointed shall have the full authority to conduct the hearing, decide issues and to assess a civil penalty as appropriate.

§ 114.7 Consolidation.

The Presiding Officer may, in his discretion, order consolidation of any hearings held under this part and arising within one Region whenever he determines that consolidation will expedite or simplify the consideration of the issues presented. The Administrator may, in his discretion, order consolidation, and designate one Region to be responsible for the conduct of

any hearings held under this part which arise in different Regions whenever he determines that consolidation will expedite or simplify the consideration of the issues presented. Consolidation shall not affect the right of any person to raise issues that could have been raised if consolidation had not occurred. At the conclusion of the hearing the Presiding Officer shall render a separate decision for each separate civil penalty case.

§ 114.8 Prehearing conference.

The Presiding Officer may hold one or more prehearing conferences and may issue a hearing agenda which may include, without limitation, decisions with regard to any or all the following:

(a) Stipulations and admissions;

(b) Disputed issues of fact;

(c) Hearing procedures including submission of oral or written testimony and the time allotted for oral arguments; and

(d) Any other matter which may expedite the hearing or aid in disposition of any issues raised therein.

§ 114.9 Conduct of hearing.

The hearing shall be held in the general location of the facility where the alleged violation occurred or as agreed to by EPA and the person charged. The Presiding Officer shall have the duty to conduct a fair and impartial hearing, to take action to avoid unnecessary delay in the disposition of proceedings, and to maintain order. The person charged with the violation may offer relevant facts, statements, explanations, and other items which such person feels should be considered in defense to the charges, bearing on the person's efforts to achieve compliance after notification of the violation or which may bear upon the penalty to be assessed. The EPA or other appropriate Agency personnel shall have the opportunity to offer facts, statements, explanations and other items including testimony of other appropriate Agencies personnel in order for the Presiding Officer to be fully informed. In the event the matter cannot be resolved by settlement the person charged with the violation shall be informed in writing, of the decision of the Presiding Officer and shall be advised of his right to appeal.

§ 114.10 Decision.

Within thirty (30) days after the conclusion of the hearings, the Presiding Officer shall issue findings with respect to the matter, including, where appropriate to the amount of the civil penalty. In assessing the civil penalty the Presiding Officer shall consider the factors set forth in § 114.3. A copy of the Presiding Officer's decision shall be sent to the person charged in the Notice of Violation. The decision of the Presiding Officer shall become the final decision of the Environmental Protection Agency unless within fifteen (15) days from the date of receipt of such decision, the person assessed the penalty appeals the decision to the Administrator, or unless the Administrator shall have stayed the effectiveness of the decision pending review.

§ 114.11 Appeal to Administrator.

(a) The person assessed a penalty in the Presiding Officer's determination shall have the right to appeal an adverse decision to the Administrator upon filing a written Notice of Appeal in the form required by paragraph (b) of this section within fifteen (15) days of the date the receipt of the Presiding Officer's decision.

(b) The Notice of Appeal shall:

(1) State the name and address of the person filing the Notice of Appeal;

(2) Contain a concise statement of the facts on which the person relies;

(3) Contain a concise statement of the legal basis on which the person relies; and

(4) Contain a concise statement setting forth the action which the person proposed that the Administrator take.

(c) The Administrator may delegate this authority to act in a given case.

(d) The Administrator, after a Notice of Appeal in proper form has been filed, shall render a decision with respect to the appeal promptly. In rendering his decision, the Administrator may adopt, modify, or set aside the decision of the Presiding Officer in any respect and shall include in his decision a concise statement of the basis therefore. The decision of the Administrator on appeal shall be effective when rendered.

PART 116—DESIGNATION OF HAZARDOUS SUBSTANCES

Sec.

116.1 Applicability.
116.2 Abbreviations.
116.3 Definitions.
116.4 Designation of hazardous substances.

AUTHORITY: Secs. 311(b)(2)(A) and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.).

§ 116.1 Applicability.

This regulation designates hazardous substances under section 311(b)(2)(A) of the Federal Water Pollution Control Act (the Act). The regulation applies to discharges of substances designated in Table 116.4.

[43 FR 10474, Mar. 13, 1978]

§ 116.2 Abbreviations.

ppm=parts per million
mg=milligram(s)
kg=kilogram(s)
mg/l=milligrams(s) per liter=(approx.) ppm
mg/kg=milligram(s) per kilogram=(approx.) ppm

[43 FR 10474, Mar. 13, 1978]

§ 116.3 Definitions.

As used in this part, all terms shall have the meaning defined in the Act and as given below:

"The Act" means the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972 (Pub. L. 92-500), and as further amended by the Clean Water Act of 1977 (Pub. L. 95-217), 33 U.S.C. 1251 et seq.; and as further amended by the Clean Water Act Amendments of 1978 (Pub. L. 95-676);

"Discharge" includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping, but excludes (A) discharges in compliance with a permit under section 402 of this Act, (B) discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of this Act, and subject to a condition in such permit, and (C) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of this Act, which are caused by events occurring within the scope of relevant operating or treatment systems;

"Otherwise subject to the jurisdiction of the United States" means subject to the jurisdiction of the United States by virtue of United States citizenship, United States vessel documentation or numbering, or as provided for by international agreement to which the United States is a party.

"Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

"Public vessel" means a vessel owned or bareboat-chartered and operated by the United States, or a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

"Onshore facility" means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

"Offshore facility" means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

"Navigable waters" is defined in section 502(7) of the Act to mean "waters of the United States, including the territorial seas," and includes, but is not limited to: (1) All waters which are presently used, or were used in the past, or may be susceptible to use as a means to transport interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide, and including adjacent wetlands; the term "wetlands" as used in this regulation shall include those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circum-

stances do support, a prevelance of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas; the term "adjacent" means bordering, contiguous or neighboring; (2) tributaries of navigable waters of the United States, including adjacent wetlands; (3) interstate waters, including wetlands; and (4) all other waters of the United States such as intrastate lakes, rivers, streams, mudflats, sandflats and wetlands, the use, degradation or destruction of which affect interstate commerce including, but not limited to:

(i) Intrastate lakes, rivers, streams, and wetlands which are utilized by interstate travelers for recreational or other purposes; and

(ii) Intrastate lakes, rivers, streams, and wetlands from which fish or shellfish are or could be taken and sold in interstate commerce; and

(iii) Intrastate lakes, rivers, streams, and wetlands which are utilized for industrial purposes by industries in interstate commerce.

"Contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone;

"Territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles.

A discharge "in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976)," means: (1) A discharge into any waters beyond the contiguous zone from any vessel or onshore or offshore facility, which vessel or facility is subject to or is engaged in activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, and (2) any discharge into any waters beyond the contiguous zone which contain, cover, or support any natural resource belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

"Aquatic animals" means appropriately sensitive wholly aquatic animals which carry out respiration by means of a gill structure permitting gaseous exchange between the water and the circulatory system;

"Animals" means appropriately sensitive animals which carry out respiration by means of a lung structure permitting gaseous exchange between air and the circulatory system;

"Aquatic flora" means plant life associated with the aquatic eco-system including, but not limited to, algae and higher plants;

"Mixture" means any combination of two or more elements and/or compounds in solid, liquid, or gaseous form except where such substances have undergone a chemical reaction so as to become inseparable by physical means.

"LC50" means that concentration of material which is lethal to one- half of the test population of aquatic animals upon continuous exposure for 96 hours or less.

[43 FR 10474, Mar. 13, 1978; 43 FR 27533, June 26, 1978, as amended at 44 FR 10266, Feb. 16, 1979]

§ 116.4 Designation of hazardous substances.

The elements and compounds appearing in Tables 116.4 A and B are designated as hazardous substances in accordance with section 311(b)(2)(A) of the Act. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing these substances. Synonyms and Chemical Abstract System (CAS) numbers have been added for convenience of the user only. In case of any disparity the common names shall be considered the designated substance.

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES

Common name	CAS No.	Synonyms	Isomers	CAS No.
Acetaldehyde	75070	Ethanal, ethyl aldehyde, acetic aldehyde		
Acetic acid	64197	Glacial acetic acid, vinegar acid		
Acetic anhydride	108247	Acetic oxide, acetyl oxide		
Acetone cyanohydrin	75865	2-methyllactonitrile, alpha-hydroxyisobutyronitrile.		
Acetyl bromide	506967			
Acetyl chloride	79367			
Acrolein	107028	2-propenal, acrylic aldehyde, acrylaldehyde, acraldehyde.		
Acrylonitrile	107131	Cyanoethylene, Fumigrain, Ventox, propenitrile, vinyl cyanide.		
Adipic acid	124049	Hexanedioic acid		
Aldrin	309002	Octalene, HHDN		
Allyl alcohol	107186	2-propen-1-ol, 1-propenol-3, vinyl carbinol		
Allyl chloride	107051	3-chloropropene, 3-chloropropylene, Chorallylene.		
Aluminum sulfate	10043013	Alum		
Ammonia	7664417			
Ammonium acetate	631618	Acetic acid ammonium, salt		
Ammonium benzoate	1863634			
Ammonium bicarbonate	1066337	Acid ammonium carbonate, ammonium hydrogen carbonate.		
Ammonium bichromate	7789095			
Ammonium bifluoride	1341497	Acid ammonium fluoride, ammonium hydrogen fluoride.		
Ammonium bisulfite	10192300			
Ammonium carbamate	1111780	Ammonium aminoformate		
Ammonium carbonate	506876			
Ammonium chloride	12125029	Ammonium muriate, sal ammoniac, salmiac, Amchlor.		
Ammonium chromate	7788989			
Ammonium citrate dibasic	3012655	Diammonium citrate, citric acid diammonium salt.		
Ammonium fluoborate	.13826830	Ammonium fluoroborate, ammonium borofluoride.		
Ammonium fluoride	12125018	Neutral ammonium fluoride		
Ammonium hydroxide	1336216			
Ammonium oxalate	6009707			
	5972736			
	14258492			
Ammonium silicofluoride	16919190	Ammonium fluosilicate		
Ammonium sulfamate	7773060	Ammate, AMS, ammonium amidosulfate		
Ammonium sulfide	12135761			
Ammonium sulfite	10196040			
	10192300			
Ammonium tartrate	3164292	Tartaric acid ammonium salt		
	14307438			
Ammonium thiocyanate	1762954	Ammonium rhodanide, ammonium sulfocyanate, ammonium sulfocyanide.		
Ammonium thiosulfate	7783188	Ammonium hyposulfite		
Amyl acetate	628637	Amylacetic ester	iso-	123922
		Pear oil	sec-	626380
		Banana oil	tert-	625161
Aniline	62533	aniline oil, phenylamine, aminobenzene, aminophen, kyanol.		
Antimony pentachloride	7647189			
Antimony potassium tartrate	28300745	Tartar emetic, tartrated antimony, tartarized antimony, potassium antimonyltartrate.		
Antimony tribromide	7789619			
Antimony trichloride	10025919	Butter of antimony		
Antimony trifluoride	7783564	Antimony fluoride		
Antimony trioxide	1309644	Diantimony trioxide, flowers of antimony		
Arsenic disulfide	1303328	Red arsenic sulfide		
Arsenic pentoxide	1303282	Arsenic acid anhydride, arsenic oxide		
Arsenic trichloride	7784341	Arsenic chloride, arsenious chloride, arsenous chloride, butter of arsenic.		
Arsenic trioxide	1327533	Arsenious acid, arsenious oxide, white arsenic.		
Arsenic trisulfide	1303339	Arsenious sulfide, yellow arsenic sulfide		
Barium cyanide	542621			

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
zene	71432	Cyclohexatriene, benzol		
zoic acid	65850	Benzenecarboxylic acid, phenylformic acid, dracylic acid.		
zonitrile	100470	Phenyl cyanide, cyanobenzene		
zoyl chloride	98884	Benzenecarbonyl chloride		
yl chloride	100447			
yllium chloride	7787475			
yllium fluoride	7787497			
yllium nitrate	7787555			
	13597994			
yl acetate	123864	acetic acid butyl ester	iso-	110190
			sec-	105464
			tert-	540885
ylamine	109739	1-aminobutane	iso-	78819
			sec-	513495
			sec-	13952846
			tert-	75649
utyl phthalate	84742	1,2-benzenedicarboxylic acid, dibutyl ester, dibutyl phthalate.		
yric acid	107926	Butanoic acid, ethylacetic acid	iso-	79312
rimium acetate	543908			
rimium bromide	7789426			
dmium chloride	10108642			
dium arsenate	7778441	Tricalcium orthoarsenate		
dium arsenite	52740166			
dium carbide	75207	Carbide, acetylenogen		
dium chromate	13765190	Calcium chrome yellow, gelbin, yellow ultramarine.		
dium cyanide	592018			
dium dodecylbenzenesulfonate	26264062			
dium hypochlorite	7778543			
oten	133062	Orthocide-406, SR-406, Vancide-89		
rbaryl	63252	Sevin		
rbofuran	1563662	Furadan		
rbon disulfide	75150	Carbon bisulfide, dithiocarbonic anhydride		
rbon tetrachloride	56235	Tetrachloromethane Perchloromethane		
lordane	57749	Toxichlor, chlordan		
	75003			
lorine	108907	Monochlorobenzene, benzene chloride		
lorobenzene	67663	trichloromethane		
loroform	2921882	Dursban		
lorpyrifos	7790945	Sulfuric chlorohydrin		
lorosulfonic acid	1066304			
romic acetate	11115745	chromic anhydride, chromium trioxide		
romic acid	10101538			
romic sulfate	10049055			
romous chloride	7789437	Cobalt bromide		
baltous bromide	544183	Cobalt formate		
baltous formate	14017415	Cobalt sulfamate		
baltous sulfamate	56724	Co-Ral		
umaphos	1319773	Cresylic acid	m-	108394
esol		Hydroxytoluene	o-	95487
			p-	106445
otonaldehyde	4170303	2-butenal propylene aldehyde		
pric acetate	142712	Copper acetate, crystallized verdigris		
pric acetoarsenite	12002038	Copper aceto-arsenite, copper acetate arsenite, Paris green.		
pric chloride	7447394	Copper chloride		
pric nitrate	3251238	Copper nitrate		
pric oxalate	5893663	Copper oxalate		
pric sulfate	7758987	Copper sulfate		
pric sulfate, ammoniated	10380297	Ammoniated copper sulfate		
pric tartrate	815827	Copper tartrate		
anogen chloride	506774			
clohexane	110827	Hexahydrobenzene, hexamethylene, hexanaphthene.		
-D acid	94757	2,4-dichlorophenoxyacetic acid		
-D ester	94111	2,4-dichlorophenoxyacetic acid ester		
	94791			
	94804			

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
	1320189			
	1926387			
	1926616			
	1929733			
	2971382			
	25168267			
	53467111			
DDT	50293	p,p'-DDT		
Diazinon	333415	Dipofene, Diazitol, Basudin, Spectracide		
Dicamba	1918009	2-methoxy-3,6-dichlorobenzoic acid		
Dichlobenil	1194656	2,6-dichlorobenzonitrile, 2,6-DBN		
Dichlone	117806	Phygon, dichloronaphthoquinone		
Dichlorobenzene	25321226	Di-chloricide	Ortho	95501
		Paramoth (Para)	Para	106467
Dichloropropane	26638197	Propylene dichloride	1,1	78999
			1,2	78875
			1,3	142289
Dichloropropene	26952238		1,3	542756
			2,3	78886
Dichloropropene-dichloropropane (mixture).	8003198	D-D mixture Vidden D		
2,2-Dichloropropionic acid	75990	Dalapon		
Dichlorvos	62737	2,2-dichlorovinyl dimethyl phosphate, Vapona.		
Dieldrin	60571	Alvit		
Diethylamine	109897			
Dimethylamine	124403			
Dinitrobenzene (mixed)	25154545	Dinitrobenzol	m-	99650
			o-	528290
			p-	100254
Dinitrophenol	51285	Aldifen	(2,5-)	329715
			(2,4-)	
			(2,6-)	573568
Dinitrotoluene	25321146	DNT	2,4	121142
			2,6	606202
			3,4	610399
Diquat	85007	Aquacide		
	2764729	Dextrone, Reglone, Diquat dibromide		
Disulfoton	298044	Di-syston		
Diuron	330541	DCMU, DMU		
Dodecylbenzenesulfonic acid	27176870			
Endosulfan	115297	Thiodan		
Endrin	72208	Mendrin, Compound 269		
Epichlorohydrin	106898	-chloropropylene oxide		
Ethion	563122	Nialate, ethyl methylene, phosphorodithioate.		
Ethylbenzene	100414	Phenylethane		
Ethylenediamine	107153	1,2-diaminoethane		
Ethylenediamine-tetraacetic acid (EDTA).	60004	Edetic acid, Havidote, (ethylenedinitrilo)-tetraacetic acid.		
Ethylene dibromide	106934	1,2-dibromoethane acetylene dibromide sym-dibromoethylene.		
Ethylene dichloride	107062	1,2-dichloroethane sym-bichloroethane		
Ferric ammonium citrate	1185575	Ammonium ferric citrate		
Ferric ammonium oxalate	2944674	Ammonium ferric oxalate		
	55488874			
Ferric chloride	7705080	Flores martis, iron trichloride		
Ferric fluoride	7783508			
Ferric nitrate	10421484	Iron nitrate		
Ferric sulfate	10028225	Ferric persulfate, ferric sesquisulfate, ferric tersulfate.		
Ferrous ammonium sulfate	10045893	Mohr's salt, iron ammonium sulfate		
Ferrous chloride	7758943	Iron chloride, iron dichloride, iron protochloride.		
Ferrous sulfate	7720787	Green vitriol		
	7782630	Iron vitriol, iron sulfate, iron protosulfate		
Formaldehyde	50000	Methyl aldehyde, methanal, formalin		
Formic acid	64186	Methanoic acid		

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
...ic acid	110178	Trans-butenedioic acid, trans-1,2-ethylenedicarboxylic acid, boletic acid, allomaleic acid.		
...al	98011	2-furaldehyde, pyromucic aldehyde		
...on	86500	Gusathion, azinphos-methyl		
...achlor	76448	Velsicol-104, Drinox, Heptagran		
...chlorocyclopentadiene	77474	Perchlorocyclopentadiene		
...chloric acid	7647010	Hydrogen chloride, muriatic acid		
...fluoric acid	7664393	Fluohydric acid		
...ogen cyanide	74908	Hydrocyanic acid		
...ogen sulfide	7783064	Hydrosulfuric acid sulfur hydride		
...ene	78795	2-methyl-1,3-butadiene		
...opanolamine	42504461			
...rorylbenzenesulfonate.				
...ene	115322	Di(p-chlorophenyl)-trichloromethylcarbinol, DTMC, dicofol.		
...one	143500	Chlordecone 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(cd)pentalen-2-one.		
...d acetate	301042	Sugar of lead		
...d arsenate	7784409			
	7645252			
	10102484			
...d chloride	7758954			
...d fluoborate	13814965	Lead fluoroborate		
...d fluoride	7783462	Lead difluoride, plumbous fluoride		
...d iodide	10101630			
...d nitrate	10099748			
...d stearate	7428480	Stearic acid lead salt		
	1072351			
	52652592			
...d sulfate	7446142			
...d sulfide	1314870	Galena		
...d thiocyanate	592870	Lead sulfocyanate		
...ane	58899	Gamma-BHC, gamma-benzene hexachloride.		
...um chromate	14307358			
...thion	121755	Phospothion		
...ic acid	110167	Cis-butenedioic acid, cis-1,2-ethylenedicarboxylic acid, toxilic acid.		
...ic anhydride	108316	2,5-furandione, cis-butenedioic anhydride, toxilic anhydride.		
...aptodimethur	203657	Mesurol		
...uric cyanide	592041	Mercury cyanide		
...uric nitrate	10045940	Mercury nitrate, mercury pernitrate		
...uric sulfate	7783359	Mercury sulfate, mercury persulfate		
...aric thiocyanate	592858	Mercury thiocyanate, mercuric sulfocyanate, mercuric sulfocyanide.		
...urous nitrate	7782867			
	10415755	Mercury protonitrate		
...thoxychlor	72435	DMDT, methoxy-DDT		
...thyl mercaptan	74931	Methanethiol, mercaptomethane, methyl sulfhydrate, thiomethyl alcohol.		
...thyl methacrylate	80626	Methacrylic acid methyl ester, methyl-2-methyl-2-propenoate.		
...thyl parathion	298000	Nitrox-80		
...inphos	7786347	Phosdrin		
...ecarbate	315184	Zectran		
...onithylamine	75047	Ethylamine, aminoethane		
...omethylamine	74895	Methylamine, aminomethane		
...d	300765	Dibrom		
...thalene	91203	White tar, tar camphor, naphthalin		
...thenic acid	1338245	Cyclohexanecarboxylic acid, hexahydrobenzoic acid.		
...el ammonium sulfate	15699180	Ammonium nickel sulfate		
...el chloride	37211055	Nickelous chloride		
	7718549			
...el hydroxide	12054487	Nickelous hydroxide		
...el nitrate	14216752			
...el sulfate	7786814	Nickelous sulfate		

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Nitric acid	7697372	Aqua fortis		
Nitrobenzene	98953	Nitrobenzol, oil of mirbane		
Nitrogen dioxide	10102440	Nitrogen tetroxide		
Nitrophenol (mixed)	25154556	Mononitrophenol	m-	554847
			o-	88755
			p-	100027
Nitrotoluene	1321126		Ortho	88722
			Meta	99081
			Para	99990
Paraformaldehyde	30525894	Paraform, Formagene, Triformol, polymerized formaldehyde, polyoxymethylene.		
Parathion	56382	DNTP, Niran		
Pentachlorophenol	87865	PCP, Penta		
Phenol	108952	Carbolic acid, phenyl hydroxide, hydroxybenzene, oxybenzene.		
Phosgene	75445	Diphosgene, carbonyl chloride, chloroformyl chloride.		
Phosphoric acid	7664382	Orthophosphoric acid		
Phosphorus	7723140	Black phosphorus, red phosphorus, white phosphorus, yellow phosphorus.		
Phosphorus oxychloride	10025873	Phosphoryl chloride, phosphorus chloride		
Phosphorus pentasulfide	1314803	Phosphoric sulfide, thiophosphoric anhydride, phosphorus persulfide.		
Phosphorus trichloride	7719122	Phosphorous chloride		
Polychlorinated biphenyls	1336363	PCB, Aroclor, polychlorinated diphenyls		
Potassium arsenate	7784410			
Potassium arsenite	10124502	Potassium metaarsenite		
Potassium bichromate	7778509	Potassium dichromate		
Potassium chromate	7789006			
Potassium cyanide	151508			
Potassium hydroxide	1310583	Potassium hydrate, caustic potash, potasse		
Potassium permanganate	7722647	Chameleon mineral		
Propargite	2312358	Omite		
Propionic acid	79094	Propanoic acid, methylacetic acid, ethylformic acid.		
Propionic anhydride	123626	Propanoic anhydride, methylacetic anhydride.		
Propylene oxide	75569	Propene oxide		
Pyrethrins	121299	Pyrethrin I		
	121211	Pyrethrin II		
Quinoline	91225	1-benzazine, benzo(b)pyridine, leucocoline, chinoleine, leucol.		
Resorcinol	108463	Resorcin, 1,3-benzenediol, meta-dihydroxybenzene.		
Selenium oxide	7446084	Selenium dioxide		
Silver nitrate	7761888	Nitric acid silver (1+) salt lunar caustic		
Sodium	7440235	Natrium		
Sodium arsenate	7631892	Disodium arsenate		
Sodium arsenite	7784465	Sodium metaarsenite		
Sodium bichromate	10588019	Sodium dichromate		
Sodium bifluoride	1333831			
Sodium bisulfite	7631905	Sodium acid sulfite, sodium hydrogen sulfite.		
Sodium chromate	7775113			
Sodium cyanide	143339			
Sodium dodecylbenzene-sulfonate	25155300			
Sodium fluoride	7681494	Villiaumite		
Sodium hydrosulfide	16721805	Sodium hydrogen sulfide		
Sodium hydroxide	1310732	Caustic soda, soda lye, sodium hydrate		
Sodium hypochlorite	7681529	Bleach		
	10022705			
Sodium methylate	124414	Sodium methoxide		
Sodium nitrite	7632000			
Sodium phosphate, dibasic	7558794			
	10039324			
	10140655			
Sodium phosphate, tribasic	7785844			
	7601549			
	10101890			
	10361894			

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
	7758294			
	10124568			
...dium selenite	10102188			
	7782823			
...ontium chromate	7789062			
...ycinine	57249			
...rene	100425	Vinylbenzene, phenylethylene, styrol, styrolene, cinnamene, cinnamol.		
...furic acid	7664939	Oil of vitriol, oleum		
...fur monochloride	12771083	Sulfur chloride		
4,5-T acid	93765	2,4,5-trichlorophenoxyacetic acid		
4,5-T amines	6369966	Acetic acid (2,4,5-trichlorophenoxy)-compound with N,N-dimethylmethanamine (1:1).		
	6369977	Acetic acid (2,4,5-trichlorophenoxy)-compound with N-methylmethanamine (1:1).		
	1319728	Acetic acid (2,4,5-trichlorophenoxy)-compound with 1-amino-2-propanol (1:1).		
	3813147	Acetic acid (2,4,5-trichlorophenoxy)-compound with 2,2'2"-nitrilotris [ethanol] (1:1).		
4,5-T esters	2545597	2,4,5-trichlorophenoxyacetic esters		
	93798			
	61792072			
	1928478			
	25168154			
4,5-T salts	13560991	Acetic acid (2,4,5-trichlorophenoxy)-sodium salt.		
DE	72548	DDD		
4,5-TP acid	93721	Propanoic acid 2-(2,4,5-trichlorophenoxy)		
4,5-TP esters	32534955	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-, isooctyl ester.		
...traethyl lead	78002	Lead tetraethyl, TEL		
...traethyl pyrophosphate	107493	TEPP		
...allium sulfate	10031591			
	7446186			
...luene	108883	Toluol, methylbenzene, phenylmethane, Methacide.		
...raphene	8001352	Camphechlor		
...trichlorfon	52686	Dipterex		
		Dylox		
...trichloroethylene	79016	Ethylene trichloride		
...trichlorophenol	25167822	Collunosol, Dowicide 2 or 2S, Omal, Phenachlor.	(2,3,4-)	15950660
			(2,3,5-)	933788
			(2,3,6-)	933755
			(2,4,5-)	95954
			(2,4,6-)	88062
			(3,4,5-)	609198
...ethanolamine dodecylbenzenesulfonate.	27323417			
...ethylamine	121448			
...methylamine	75503	TMA		
...amyl acetate	541093			
...amyl nitrate	10102064			
...nadium pentoxide	36478769			
...nadyl sulfate	1314621	Vanadic anhydride, vanadic acid anhydride		
...nyl acetate	27774136	Vanadic sulfate, vanadium sulfate		
...nylidene chloride	108054	Acetic acid ethylene ether		
	75354	1,1-dichloroethylene		
		1,1-dichloroethene		
...lene (mixed)	1330207	Dimethylbenzene	m-	108383
		Xylol	o-	95476
			p-	106423
...enol	1300716	Dimethylphenol, hydroxydimethylbenzene		
...nc acetate	557346			
...nc ammonium chloride	14639975			
	14639986			
	52628258			
...nc borate	1332076			
...nc bromide	7699458			

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Zinc carbonate	3486359			
Zinc chloride	7646857	Butter of zinc		
Zinc cyanide	557211			
Zinc fluoride	7783495			
Zinc formate	557415			
Zinc hydrosulfite	7779864			
Zinc nitrate	7779886			
Zinc phenolsulfonate	127822	Zinc sulfocarbolate		
Zinc phosphide	1314847			
Zinc silicofluoride	16871719	Zinc fluosilicate		
Zinc sulfate	7733020	White vitriol, zinc vitriol, white copperas		
Zirconium nitrate	13746899			
Zirconium potassium fluoride	16923958			
Zirconium sulfate	14644612	Disulfatozirconic acid		
Zirconium tetrachloride	10026116			

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER

CAS No.	Common name
50000	Formaldehyde
50293	DDT
51285	2,4-Dinitrophenol
52686	Trichlorfon
56382	Parathion
56724	Coumaphos
57249	Strychnine
57749	Chlordane
58899	Lindane
60004	Ethylenediaminetetraacetic acid (EDTA)
60571	Dieldrin
62533	Aniline
62737	Dichlorvos
63252	Carbaryl
64186	Formic acid
64197	Acetic acid
65850	Benzoic acid
67663	Chloroform
71432	Benzene
72208	Endrin
72435	Methoxychlor
72548	TDE
74895	Monomethylamine
74908	Hydrogen cyanide
74931	Methyl mercaptan
75047	Monoethylamine
75070	Acetaldehyde
75150	Carbon disulfide
75207	Calcium carbide
75445	Phosgene
75503	Trimethylamine
75649	tert-Butylamine
75865	Acetone cyanohydrin
75990	2,2-Dichloropropionic acid
76448	Heptachlor
78002	Tetraethyl lead
78795	Isoprene
78819	Iso-Butylamine
79094	Propionic acid
79312	Iso-Butyric acid
79367	Acetyl chloride
80626	Methyl methacrylate
85007	Diquat
86500	Guthion
87865	Pentachlorophenol

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
88755	o-Nitrophenol
91203	Naphthalene
91225	Quinoline
93765	2,4,5-T acid
93798	2,4,5-T ester
94111	2,4-D ester
94757	2,4-D acid
94791	2,4-D ester
94804	2,4-D Butyl ester
95476	o-Xylene
95487	o-Cresol
98011	Furfural
98884	Benzoyl chloride
98953	Nitrobenzene
99650	m-Dinitrobenzene
100027	p-Nitrophenol
100254	p-Dinitrobenzene
100414	Ethylbenzene
100425	Styrene
100447	Benzyl chloride
100470	Benzonitrile
105464	sec-Butyl acetate
106423	p-Xylene
106445	p-Cresol
107028	Acrolein
107051	Allyl chloride
107131	Acrylonitrile
107153	Ethylenediamine
107186	Allyl alcohol
107493	Tetraethyl pyrophosphate
107926	n-Butyric acid
108054	Vinyl acetate
108247	Acetic anhydride
108316	Maleic anhydride
108383	m-Xylene
108394	m-Cresol
108463	Resorcinol
108883	Toluene
108907	Chlorobenzene
108952	Phenol
109739	n-Butylamine
109897	Diethylamine
110167	Maleic acid
110178	Fumaric acid
110190	Iso-Butyl acetate
110827	Cyclohexane

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
6297	Endosulfan
5322	Kelthane
7806	Dichlone
1211	Pyrethrin
1209	Pyrethrin
1448	Triethylamine
1755	Malathion
0426	Propionic anhydride
0864	n-Butyl acetate
3922	Iso-Amyl acetate
4403	Dimethylamine
4414	Sodium methylate
7822	Zinc phenolsulfonate
0062	Captan
2712	Cupric acetate
3339	Sodium cyanide
1508	Potassium cyanide
8000	Methyl parathion
8044	Disulfoton
0765	Naled
1042	Lead acetate
9002	Aldrin
5184	Mexacarbate
9745	2,5-Dinitrophenol
0541	Diuron
3415	Diazinon
6774	Cyanogen chloride
6878	Ammonium carbonate
6967	Acetyl bromide
3495	sec-Butylamine
8290	o-Dinitrobenzene
0885	tert-Butyl acetate
1033	Uranyl acetate
2621	Barium cyanide
3908	Cadmium acetate
4183	Cobaltous formate
4847	m-Nitrophenol
7211	Zinc cyanide
7346	Zinc acetate
7415	Zinc formate
3122	Ethion
3568	2,6-Dinitrophenol
2018	Calcium cyanide
2141	Mercuric cyanide
2858	Mercuric thiocyanate
2870	Lead thiocyanate
5161	tert-Amyl acetate
6380	sec-Amyl acetate
8637	n-Amyl acetate
1618	Ammonium acetate
5827	Cupric tartrate
6304	Chromic acetate
6337	Ammonium bicarbonate
2351	Lead stearate
1700	Ammonium carbamate
5575	Ferric ammonium citrate
4656	Dichlobenil
0716	Xylenol
3282	Arsenic pentoxide
3328	Arsenic disulfide
3339	Arsenic trisulfide
0644	Antimony trioxide
0509	Potassium hydroxide
0732	Sodium hydroxide
4621	Vanadium pentoxide
4803	Phosphorus pentasulfide
4947	Zinc phosphide
4970	Lead sulfide
9773	Cresol (mixed)

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
1320189	2,4-D ester
1327533	Arsenic trioxide
1330207	Xylene
1332076	Zinc borate
1333831	Sodium bifluoride
1336216	Ammonium hydroxide
1336363	Polychlorinated biphenyls
1338245	Naphthenic acid
1341497	Ammonium bifluoride
1762954	Ammonium thiocyanate
1863634	Ammonium benzoate
1918009	Dicamba
1928387	2,4-D esters
1928478	2,4,5-T ester
1928616	2,4-D ester
1929733	2,4-D ester
2545597	2,4,5-T ester
2764729	Diquat
2921882	Chlorpyrifos
2944674	Ferric ammonium oxalate
2971382	2,4-D ester
3012655	Ammonium citrate, dibasic
3164292	Ammonium tartrate
3251238	Cupric nitrate
3486359	Zinc carbonate
5893663	Cupric oxalate
5972736	Ammonium oxalate
6009707	Ammonium oxalate
6369966	2,4,5-T ester
7428480	Lead stearate
7440235	Sodium
7446084	Selenium oxide
7446142	Lead sulfate
7447394	Cupric chloride
7558794	Sodium phosphate, dibasic
7601549	Sodium phosphate, tribasic
7631892	Sodium arsenate
7631905	Sodium bisulfite
7632000	Sodium nitrite
7645252	Lead arsenate
7646857	Zinc chloride
7647010	Hydrochloric acid
7647189	Antimony pentachloride
7664382	Phosphoric acid
7664393	Hydrofluoric acid
7664417	Ammonia
7664939	Sulfuric acid
7681494	Sodium fluoride
7681529	Sodium hypochlorite
7697372	Nitric acid
7699458	Zinc bromide
7705080	Ferric chloride
7718549	Nickel chloride
7719122	Phosphorus trichloride
7720787	Ferrous sulfate
7722647	Potassium permanganate
7723140	Phosphorus
7733020	Zinc sulfate
7758294	Sodium phosphate, tribasic
7758943	Ferrous chloride
7758954	Lead chloride
7758987	Cupric sulfate
7773060	Ammonium sulfamate
7775113	Sodium chromate
7778441	Calcium arsenate
7778509	Potassium bichromate
7778543	Calcium hypochlorite
7779864	Zinc hydrosulfite
7779886	Zinc nitrate

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
7782505	Chlorine
7782630	Ferrous sulfate
7782823	Sodium selenite
7782867	Mercurous nitrate
7783188	Ammonium thiosulfate
7783359	Mercuric sulfate
7783462	Lead fluoride
7783495	Zinc fluoride
7783508	Ferric fluoride
7783564	Antimony trifluoride
7784341	Arsenic trichloride
7784409	Lead arsenate
7784410	Potassium arsenate
7784465	Sodium arsenite
7785844	Sodium phosphate, tribasic
7786347	Mevinphos
7786814	Nickel sulfate
7787475	Beryllium chloride
7787497	Beryllium fluoride
7787555	Beryllium nitrate
7788989	Ammonium chromate
7789006	Potassium chromate
7789062	Strontium chromate
7789095	Ammonium bichromate
7789426	Cadmium bromide
7789437	Cobaltous bromide
7789619	Antimony tribromide
7790945	Chlorosulfonic acid
8001352	Toxaphene
10022705	Sodium hypochlorite
10025873	Phosphorus oxychloride
10025919	Antimony trichloride
10026116	Zirconium tetrachloride
10026225	Ferric sulfate
10026247	Sodium phosphate, dibasic
10039324	Sodium phosphate, dibasic
10043013	Aluminum sulfate
10045893	Ferrous ammonium sulfate
10045940	Mercuric nitrate
10049055	Chromous chloride
10099748	Lead nitrate
10101538	Chromic sulfate
10101630	Lead iodide
10101890	Sodium phosphate, tribasic
10102064	Uranyl nitrate
10102188	Sodium selenite
10102440	Nitrogen dioxide
10102484	Lead arsenate
10108642	Cadmium chloride
10124502	Potassium arsenite
10124568	Sodium phosphate, tribasic
10140655	Sodium phosphate, dibasic
10192300	Ammonium bisulfite
10196040	Ammonium sulfite
10361894	Sodium phosphate, tribasic
10380297	Cupric sulfate, ammoniated
10415755	Mercurous nitrate
10421484	Ferric nitrate
10588019	Sodium bichromate
11115745	Chromic acid
12002038	Cupric acetoarsenite
12054487	Nickel hydroxide
12125018	Ammonium fluoride
12125029	Ammonium chloride
12135761	Ammonium sulfide
12771083	Sulfur chloride
13597994	Beryllium nitrate
13746899	Zirconium nitrate
13765190	Calcium chromate

TABLE 116.4B—LIST OF HAZARDOUS SUBSTANCES BY CAS NUMBER—Continued

CAS No.	Common name
13814965	Lead fluoborate
13826830	Ammonium fluoborate
13952846	sec-Butylamine
14017415	Cobaltous sulfamate
14216752	Nickel nitrate
14258492	Ammonium oxalate
14307358	Lithium chromate
14307438	Ammonium tartrate
14639975	Zinc ammonium chloride
14639986	Zinc ammonium chloride
14644612	Zirconium sulfate
15699180	Nickel ammonium sulfate
16721805	Sodium hydrosulfide
16871719	Zinc silicofluoride
16919190	Ammonium silicofluoride
16923958	Zirconium potassium fluoride
25154545	Dinitrobenzene
25154556	Nitrophenol
25155300	Sodium dodecylbenzenesulfonate
25167822	Trichlorophenol
25168154	2,4,5-T ester
25168267	2,4-D ester
26264062	Calcium dodecylbenzenesulfonate
27176870	Dodecylbenzenesulfonic acid
27323417	Triethanolamine dodecylbenzenesulfonate
27774136	Vanadyl sulfate
28300745	Antimony potassium tartrate
30525894	Paraformaldehyde
36478769	Uranyl nitrate
37211055	Nickel chloride
42504461	Dodecylbenzenesulfonate isopropanolamine
52628258	Zinc ammonium chloride
52740166	Calcium arsenite
53467111	2,4-D ester
55488874	Ferric ammonium oxalate
61792072	2,4,5-T ester

[43 FR 10474, Mar. 13, 1978; 43 FR 27533, June 26, 1978, as amended at 44 FR 10268, Feb. 16, 1979; 44 FR 65400, Nov. 13, 1979; 44 FR 66602, Nov. 20, 1979]

PART 117—DETERMINATION OF REPORTABLE QUANTITIES FOR HAZARDOUS SUBSTANCES

Subpart A—General Provisions

Sec.

117.1 Definitions.
117.2 Abbreviations.
117.3 Determination of reportable quantities.

Subpart B—Applicability

117.11 General applicability.
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117.14 Demonstration projects.

Subpart C—Notice of Discharge of a Reportable Quantity

117.21 Notice.
117.22 Penalties.
117.23 Liabilities for removal.

AUTHORITY: Secs. 311 and 501(a), Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), ("the Act") and Executive Order 11735.

SOURCE: 44 FR 50776, Aug. 29, 1979, unless otherwise noted.

Subpart A—General Provisions

§ 117.1 Definitions.

As used in this part, all terms shall have the meanings stated in 40 CFR Part 116.

(a) "Reportable quantities" means quantities that may be harmful as set forth in § 117.3, the discharge of which is a violation of section 311(b)(3) and requires notice as set forth in § 117.21.

(b) "Administrator" means the Administrator of the Environmental Protection Agency ("EPA").

(c) "Mobile source" means any vehicle, rolling stock, or other means of transportation which contains or carries a reportable quantity of a hazardous substance.

(d) "Public record" means the NPDES permit application or the NPDES permit itself and the "record of final permit" as defined in 40 CFR 124.122.

(e) "National Pretreatment Standard" or "Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the EPA in accordance with section 307 (b) and (c) of the Act, which applies to industrial users of a publicly owned treatment works. It further means any State or local pretreatment requirement applicable to a discharge and which is incorporated into a permit issued to a publicly owned treatment works under section 402 of the Act.

(f) "Publicly Owned Treatment Works" or "POTW" means a treatment works as defined by section 212 of the Act, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any sewers that convey wastewater to such a treatment works, but does not include pipes, sewers or other conveyances not connected to a facility providing treatment. The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works.

(g) "Remove" or "removal" refers to removal of the oil or hazardous substances from the water and shoreline or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches.

(h) "Contiguous zone" means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone.

(i) "Navigable waters" means "waters of the United States, including the territorial seas." This term includes:

(1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(2) Interstate waters, including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams, (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce;

(4) All impoundments of waters otherwise defined as navigable waters under this paragraph;

(5) Tributaries of waters identified in paragraphs (i)(1)-(4) of this section, including adjacent wetlands; and

(6) Wetlands adjacent to waters identified in paragraphs (i)(1)-(5) of this section ("Wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally included playa lakes, swamps, marshes, bogs, and similar areas such as sloughs, prairie potholes, wet meadows, prairie river overflows, mudflats, and natural ponds): *Provided*, That waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

(j) "Process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

§ 117.2 Abbreviations.

NPDES equals National Pollutant Discharge Elimination System. RQ equals reportable quantity.

§ 117.3 Determination of reportable quantities.

The quantity listed with each substance in Table 117.3 is determined to be the reportable quantity for that substance.

TABLE 117.3—REPORTABLE QUANTITIES OF HAZARDOUS SUBSTANCES

NOTE: The first number under the column headed "RQ" is the reportable quantity in pounds. The number in parentheses is the metric equivalent in kilograms. For convenience, the table contains a column headed "Category" which lists the code letters "X", "A", "B", "C" and "D" associated with reportable quantities of 1, 10, 100, 1000 and 5000 pounds respectively.

Material	Category	RQ in pounds (kilograms)
Acetaldehyde	C	1,000 (454)
Acetic acid	C	1,000 (454)
Acetic anhydride	C	1,000 (454)
Acetone cyanohydrin	A	10 (4.54)
Acetyl bromide	D	5,000 (2,270)
Acetyl chloride	D	5,000 (2,270)
Acrolein	X	1 (0.454)
Acrylonitrile	B	100 (45.4)
Adipic acid	D	5,000 (2,270)
Aldrin	X	1 (0.454)
Allyl alcohol	B	100 (45.4)
Allyl chloride	C	1,000 (454)
Aluminum sulfate	D	5,000 (2,270)
Ammonia	B	100 (45.4)
Ammonium acetate	D	5,000 (2,270)
Ammonium benzoate	D	5,000 (2,270)
Ammonium bicarbonate	D	5,000 (2,270)
Ammonium bichromate	C	1,000 (454)
Ammonium bifluoride	D	5,000 (2,270)
Ammonium bisulfite	D	5,000 (2,270)
Ammonium carbamate	D	5,000 (2,270)
Ammonium carbonate	D	5,000 (2,270)
Ammonium chloride	D	5,000 (2,270)
Ammonium chromate	C	1,000 (454)
Ammonium citrate	D	5,000 (2,270)
Ammonium fluoborate	D	5,000 (2,270)
Ammonium fluoride	D	5,000 (2,270)
Ammonium hydroxide	C	1,000 (454)
Ammonium oxalate	D	5,000 (2,270)
Ammonium silicofluoride	C	1,000 (454)
Ammonium sulfamate	D	5,000 (2,270)
Ammonium sulfide	D	5,000 (2,270)
Ammonium sulfite	D	5,000 (2,270)
Ammonium tartrate	D	5,000 (2,270)
Ammonium thiocyanate	D	5,000 (2,270)
Ammonium thiosulfate	D	5,000 (2,270)
Amyl acetate	C	1,000 (454)
Aniline	C	1,000 (454)
Antimony pentachloride	C	1,000 (454)
Antimony potassium tartrate	C	1,000 (454)
Antimony tribromide	C	1,000 (454)
Antimony trichloride	C	1,000 (454)
Antimony trifluoride	C	1,000 (454)
Antimony trioxide	D	5,000 (2,270)
Arsenic disulfide	D	5,000 (2,270)
Arsenic pentoxide	D	5,000 (2,270)
Arsenic trichloride	D	5,000 (2,270)
Arsenic trioxide	D	5,000 (2,270)
Arsenic trisulfide	D	5,000 (2,270)
Barium cyanide	A	10 (4.54)
Benzene	C	1,000 (454)
Benzoic acid	D	5,000 (2,270)
Benzonitrile	C	1,000 (454)
Benzoyl chloride	C	1,000 (454)
Benzyl chloride	B	100 (45.4)
Beryllium chloride	D	5,000 (2,270)
Beryllium fluoride	D	5,000 (2,270)
Beryllium nitrate	D	5,000 (2,270)
Butyl acetate	D	5,000 (2,270)
n-Butyl phthalate	B	100 (45.4)
Butylamine	C	1,000 (454)
Butyric acid	D	5,000 (2,270)
Cadmium acetate	B	100 (45.4)
Cadmium bromide	B	100 (45.4)
Cadmium chloride	B	100 (45.4)
Calcium arsenate	C	1,000 (454)
Calcium arsenite	C	1,000 (454)
Calcium carbide	D	5,000 (2,270)
Calcium chromate	C	1,000 (454)
Calcium cyanide	A	10 (4.54)
Calcium dodecylbenzenesulfonate	C	1,000 (454)
Calcium hypochlorite	B	100 (45.4)
Captan	A	10 (4.54)
Carbaryl	B	100 (45.4)

Material	Category	RQ in pounds (kilograms)
Carbofuran	A	10 (4.54)
Carbon disulfide	D	5,000 (2,270)
Carbon tetrachloride	D	5,000 (2,270)
Chlordane	X	1 (0.454)
Chlorine	A	10 (4.54)
Chlorobenzene	B	100 (45.4)
Chloroform	D	5,000 (2,270)
Chlorpyrifos	X	1 (0.454)
Chlorosulfonic acid	C	1,000 (454)
Chromic acetate	C	1,000 (454)
Chromic acid	C	1,000 (454)
Chromic sulfate	C	1,000 (454)
Chromous chloride	C	1,000 (454)
Cobaltous bromide	C	1,000 (454)
Cobaltous formate	C	1,000 (454)
Cobaltous sulfamate	C	1,000 (454)
Coumaphos	A	10 (4.54)
Cresol	C	1,000 (454)
Crotonal dehyde	B	100 (45.4)
Cupric acetate	B	100 (45.4)
Cupric acetoarsenite	B	100 (45.4)
Cupric chloride	A	10 (4.54)
Cupric nitrate	B	100 (45.4)
Cupric oxalate	B	100 (45.4)
Cupric sulfate	A	10 (4.54)
Cupric sulfate ammoniated	B	100 (45.4)
Cupric tartrate	B	100 (45.4)
Cyanogen chloride	A	10 (4.54)
Cyclohexane	C	1,000 (454)
2,4-D Acid	B	100 (45.4)
2,4-D Esters	B	100 (45.4)
DDT	X	1 (0.454)
Diazinon	X	1 (0.454)
Dicamba	C	1,000 (454)
Dichlobenil	C	1,000 (454)
Dichlone	X	1 (0.454)
Dichlorobenzene	B	100 (45.4)
Dichloropropane	D	5,000 (2,270)
Dichloropropene	D	5,000 (2,270)
Dichloropropene-Dichloropropane Mixture.	D	5,000 (2,270)
2,2-Dichloropropionic acid	D	5,000 (2,270)
Dichlorvos	A	10 (4.54)
Dieldrin	X	1 (0.454)
Diethylamine	C	1,000 (454)
Dimethylamine	C	1,000 (454)
Dinitrobenzene	C	1,000 (454)
Dinitrophenol	C	1,000 (454)
Dinitrotoluene	C	1,000 (454)
Diquat	C	1,000 (454)
Disulfoton	X	1 (0.454)
Diuron	B	100 (45.4)
Dodecylbenzenesulfonic acid	C	1,000 (454)
Endosulfan	X	1 (0.454)
Endrin	X	1 (0.454)
Epichlorohydrin	C	1,000 (454)
Ethion	A	10 (4.54)
Ethylbenzene	C	1,000 (454)
Ethylenediamine	C	1,000 (454)
Ethylene dibromide	C	1,000 (454)
Ethylene dichloride	D	5,000 (2,270)
EDTA	D	5,000 (2,270)
Ferric ammonium citrate	C	1,000 (454)
Ferric ammonium oxalate	C	1,000 (454)
Ferric chloride	C	1,000 (454)
Ferric fluoride	B	100 (45.4)
Ferric nitrate	C	1,000 (454)
Ferric sulfate	C	1,000 (454)
Ferrous ammonium sulfate	C	1,000 (454)
Ferrous chloride	B	100 (45.4)
Ferrous sulfate	C	1,000 (454)
Formaldehyde	C	1,000 (454)
Formic acid	D	5,000 (2,270)
Fumaric acid	D	5,000 (2,270)
Furfural	C	1,000 (454)
Guthion	X	1 (0.454)
Heptachlor	X	1 (0.454)
Hexachlorocyclopentadiene	X	1 (0.454)
Hydrochloric acid	D	5,000 (2,270)
Hydrofluoric acid	D	5,000 (2,270)
Hydrogen cyanide	A	10 (4.54)
Hydrogen sulfide	B	100 (45.4)
Isoprene	C	1,000 (454)
Isopropanolamine dodecylbenzenesulfonate.	C	1,000 (454)
Kelthane	D	5,000 (2,270)
Kepone	X	1 (0.454)
Lead acetate	D	5,000 (2,270)
Lead arsenate	D	5,000 (2,270)
Lead chloride	D	5,000 (2,270)
Lead fluoborate	D	5,000 (2,270)
Lead fluoride	C	1,000 (454)
Lead iodide	D	5,000 (2,270)
Lead nitrate	D	5,000 (2,270)
Lead stearate	D	5,000 (2,270)
Lead sulfate	D	5,000 (2,270)
Lead sulfide	D	5,000 (2,270)
Lead thiocyanate	D	5,000 (2,270)
Lindane	X	1 (0.454)
Lithium chromate	C	1,000 (454)
Malathion	A	10 (4.54)
Maleic acid	D	5,000 (2,270)
Maleic anhydride	D	5,000 (2,270)
Mercaptodimethur	B	100 (45.4)
Mercuric cyanide	X	1 (0.454)
Mercuric nitrate	A	10 (4.54)
Mercuric sulfate	A	10 (4.54)
Mercuric thiocyanate	A	10 (4.54)
Mercurous nitrate	A	10 (4.54)
Methoxychlor	X	1 (0.454)
Methyl mercaptan	B	100 (45.4)
Methyl methacrylate	D	5,000 (2,270)
Methyl parathion	B	100 (45.4)
Mevinphos	X	1 (0.454)
Mexacarbate	C	1,000 (454)
Monoethylamine	C	1,000 (454)
Monomethylamine	C	1,000 (454)
Naled	A	10 (4.54)
Naphthalene	D	5,000 (2,270)
Naphthenic acid	B	100 (45.4)
Nickel ammonium sulfate	D	5,000 (2,270)
Nickel chloride	D	5,000 (2,270)
Nickel hydroxide	C	1,000 (454)
Nickel nitrate	D	5,000 (2,270)
Nickel sulfate	D	5,000 (2,270)
Nitric acid	C	1,000 (454)
Nitrobenzene	C	1,000 (454)
Nitrogen dioxide	C	1,000 (454)
Nitrophenol	C	1,000 (454)
Nitrotoluene	C	1,000 (454)
Paraformaldehyde	C	1,000 (454)
Parathion	X	1 (0.454)
Pentachlorophenol	A	10 (4.54)
Phenol	C	1,000 (454)
Phosgene	D	5,000 (2,270)
Phosphoric acid	D	5,000 (2,270)
Phosphorus	X	1 (0.454)
Phosphorus oxychloride	D	5,000 (2,270)
Phosphorus pentasulfide	B	100 (45.4)
Phosphorus trichloride	D	5,000 (2,270)
Polychlorinated biphenyls	A	10 (4.54)
Potassium arsenate	C	1,000 (454)
Potassium arsenite	C	1,000 (454)
Potassium bichromate	C	1,000 (454)
Potassium chromate	C	1,000 (454)
Potassium cyanide	A	10 (4.54)
Potassium hydroxide	C	1000 (454)
Potassium permanganate	B	100 (45.4)
Propargite	A	10 (4.54)
Proplonic acid	D	5,000 (2,270)
Proplonic anhydride	D	5,000 (2,270)
Propylene oxide	D	5,000 (2,270)
Pyrethrins	C	1,000 (454)
Quinoline	C	1,000 (454)
Resorcinal	C	1,000 (454)
Selenium oxide	C	1,000 (454)
Silver nitrate	X	1 (0.454)
Sodium	C	1,000 (454)
Sodium arsenate	C	1,000 (454)
Sodium arsenite	C	1,000 (454)
Sodium bichromate	C	1,000 (454)
Sodium bifluoride	D	5,000 (2,270)
Sodium bisulfite	D	5,000 (2,270)
Sodium chromate	C	1,000 (454)
Sodium cyanide	A	10 (4.54)
Sodium dodecylbenzenesulfonate.	C	1,000 (454)
Sodium fluoride	D	5,000 (2,270)
Sodium hydrosulfide	D	5,000 (2,270)
Sodium hydroxide	C	1,000 (454)
Sodium hypochlorite	B	100 (45.4)
Sodium methylate	C	1,000 (454)
Sodium nitrite	B	100 (45.4)
Sodium phosphate, dibasic	D	5,000 (2,270)
Sodium phosphate, tribasic	D	5,000 (2,270)
Sodium selenite	C	1,000 (454)
Strontium chromate	C	1,000 (454)
Strychnine	A	10 (4.54)
Styrene	C	1,000 (454)
Sulfuric acid	C	1,000 (454)
Sulfur monochloride	C	1,000 (454)
2,4,5-T acid	B	100 (45.4)
2,4,5-T amines	B	100 (45.4)
2,4,5-T esters	B	100 (45.4)
2,4,5-T salts	B	100 (45.4)
2,4,5-TP acid	B	100 (45.4)
2,4,5-TP acid esters	B	100 (45.4)
TDE	X	1 (0.454)
Tetraethyl lead	B	100 (45.4)
Tetraethyl pyrophosphate	B	100 (45.4)
Thallium sulfate	C	1,000 (454)
Toluene	C	1,000 (454)
Toxaphene	X	1 (0.454)
Trichlorfon	C	1,000 (454)
Trichloroethylene	C	1,000 (454)
Trichlorophenol	A	10 (4.54)
Triethanolamine dodecylbenzenesulfonate.	C	1,000 (454)
Triethylamine	D	5,000 (2,270)
Trimethylamine	C	1,000 (454)
Uramyl acetate	D	5,000 (2,270)
Uramyl nitrate	D	5,000 (2,270)
Vanadium pentoxide	C	1,000 (454)
Vanadyl sulfate	C	1,000 (454)
Vinyl acetate	C	1,000 (454)
Vinylidene chloride	D	5,000 (2,270)
Xylene	C	1,000 (454)
Xylenol	C	1,000 (454)
Zinc acetate	C	1,000 (454)
Zinc ammonium chloride	D	5,000 (2,270)
Zinc borate	C	1,000 (454)
Zinc bromide	D	5,000 (2,270)
Zinc carbonate	C	1,000 (454)
Zinc chloride	D	5,000 (2,270)
Zinc cyanide	A	10 (4.54)
Zinc fluoride	C	1,000 (454)
Zinc formate	C	1,000 (454)
Zinc hydrosulfite	C	1,000 (454)
Zinc nitrate	D	5,000 (2,270)
Zinc phenolsulfonate	D	5,000 (2,270)
Zinc phosphide	C	1,000 (454)
Zinc silicofluoride	D	5,000 (2,270)
Zinc sulfate	C	1,000 (454)
Zirconium nitrate	D	5,000 (2,270)
Zirconium potassium fluoride	D	5,000 (2,270)
Zirconium sulfate	D	5,000 (2,270)
Zirconium tetrachloride	D	5,000 (2,270)

[44 FR 50776, Aug. 29, 1979, as amended at 44 FR 58712, Oct. 11, 1979; 44 FR 65400, Nov. 13, 1979]

Subpart B—Applicability

§ 117.11 General applicability.

This regulation sets forth a determination of the reportable quantity for each substance designated as hazardous in 40 CFR Part 116. The regulation applies to quantities of designated substances equal to or greater than the reportable quantities, when discharged into or upon the navigable waters of the United States, adjoining shorelines, into or upon the contiguous zone, or beyond the contiguous zone as provided in section 311(b)(3) of the Act, except to the extent that the owner or operator can show such that discharges are made:

(a) In compliance with a permit issued under the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.);

(b) In compliance with approved water treatment plant operations as specified by local or State regulations pertaining to safe drinking water;

(c) Pursuant to the label directions for application of a pesticide product registered under section 3 or section 24 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended (7 U.S.C. 136 et seq.), or pursuant to the terms and conditions of an experimental use permit issued under section 5 of FIFRA, or pursuant to an exemption granted under section 18 of FIFRA;

(d) In compliance with the regulations issued under section 3004 or with permit conditions issued pursuant to section 3005 of the Resource Conserva-

waters) at the same time standards of performance for the equivalent category of new sources are promulgated.

(h) Section 316(b) of the Act provides that any standard established pursuant to section 301 or section 306 of the Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.

(i) Section 402(a)(1) of the Act provides that the Administrator may issue permits for the discharge of any pollutant upon condition that such discharge will meet all applicable requirements under sections 301, 302, 306, 307, 308 and 403 of this Act. In addition, section 402(b)(1)(A) of the Act requires that permits issued by States under the National Pollutant Discharge Elimination System (NPDES) established by the Act must apply, and insure compliance with any applicable requirements of sections 301, 302, 306, 307 and 403 of the Act.

§ 401.13 Test procedures for measurement.

The test procedures for measurement which are prescribed at Part 136 of this chapter shall apply to expressions of pollutant amounts, characteristics or properties in effluent limitations guidelines and standards of performance and pretreatment standards as set forth at Parts 402 through 699 of this subchapter, unless otherwise specifically noted or defined in said parts.

401.11 Cooling water intake structures.

The location, design, construction and capacity of cooling water intake structures of any point source for which a standard is established pursuant to section 301 or 306 of the Act shall reflect the best technology available for minimizing adverse environmental impact, in accordance with the provisions of Part 402 of this chapter.

(Sec. 501(a) of the Federal Water Pollution Control Act, as amended; 33 U.S.C. 1326(b) and 1261(a))

[41 FR 17389, Apr. 26, 1976]

§ 401.15 Toxic pollutants.

The following comprise the list of toxic pollutants designated pursuant to section 307(a)(1) of the Act:

1. Acenaphthene
2. Acrolein
3. Acrylonitrile
4. Aldrin/Dieldrin[1]
5. Antimony and compounds[2]
6. Arsenic and compounds
7. Asbestos
8. Benzene
9. Benzidine[1]
10. Beryllium and compounds
11. Cadmium and compounds
12. Carbon tetrachloride
13. Chlordane (technical mixture and metabolites)
14. Chlorinated benzenes (other than dichlorobenzenes)
15. Chlorinated ethanes (including 1,2-dichloroethane, 1,1,1-trichloroethane, and hexachloroethane)
16. Chloroalkyl ethers (chloroethyl and mixed ethers)
17. Chlorinated naphthalene
18. Chlorinated phenols (other than those listed elsewhere; includes trichlorophenols and chlorinated cresols)
19. Chloroform
20. 2-chlorophenol
21. Chromium and compounds
22. Copper and compounds
23. Cyanides
24. DDT and metabolites[1]
25. Dichlorobenzenes (1,2-, 1,3-, and 1,4-dichlorobenzenes)
26. Dichlorobenzidine
27. Dichloroethylenes (1,1-, and 1,2-dichloroethylene)
28. 2,4-dichlorophenol
29. Dichloropropane and dichloropropene
30. 2,4-dimethylphenol
31. Dinitrotoluene
32. Diphenylhydrazine
33. Endosulfan and metabolites
34. Endrin and metabolites[1]
35. Ethylbenzene
36. Fluoranthene
37. Haloethers (other than those listed elsewhere; includes chlorophenylphenyl ethers, bromophenylphenyl ether, bis(dichloroisopropyl) ether, bis-(chloroethoxy) methane and polychlorinated diphenyl ethers)
38. Halomethanes (other than those listed elsewhere; includes methylene chloride, methylchloride, methylbromide, bromoform, dichlorobromomethane
39. Heptachlor and metabolites
40. Hexachlorobutadiene
41. Hexachlorocyclohexane
42. Hexachlorocyclopentadiene
43. Isophorone
44. Lead and compounds
45. Mercury and compounds
46. Naphthalene
47. Nickel and compounds
48. Nitrobenzene
49. Nitrophenols (including 2,4-dinitrophenol, dinitrocresol)
50. Nitrosamines
51. Pentachlorophenol
52. Phenol
53. Phthalate esters
54. Polychlorinated biphenyls (PCBs)[1]
55. Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzofluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes)
56. Selenium and compounds
57. Silver and compounds
58. 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)
59. Tetrachloroethylene
60. Thallium and compounds
61. Toluene
62. Toxaphene[1]
63. Trichloroethylene
64. Vinyl chloride
65. Zinc and compounds

[44 FR 44502, July 30, 1979, as amended at 46 FR 2266, Jan. 8, 1981; 46 FR 10724, Feb. 4, 1981]

§ 401.16 Conventional pollutants.

The following comprise the list of conventional pollutants designated pursuant to section 304(a)(4) of the Act:

1. Biochemical oxygen demand (BOD)
2. Total suspended solids (nonfilterable) (TSS)
3. pH
4. Fecal coliform
5. Oil and grease

[44 FR 44503, July 30, 1979; 44 FR 52685, Sept. 10, 1979]

§ 401.17 pH Effluent limitations under continuous monitoring.

(a) Where a permittee continuously measures the pH of wastewater pursuant to a requirement or option in a National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to section 402 of the Act, the permittee shall maintain the pH of such wastewater within the range set forth in the applicable effluent limitations guidelines, except excursions from the range are permitted subject to the following limitations:

(1) The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and

(2) No individual excursion from the range of pH values shall exceed 60 minutes.

(b) The Director, as defined in § 122.3 of this chapter, may adjust the requirements set forth in paragraph (a) of this section with respect to the length of individual excursions from the range of pH values, if a different period of time is appropriate based upon the treatment system, plant configuration or other technical factors.

(c) For purposes of this section, an "excursion" is an unintentional and temporary incident in which the pH value of discharge wastewater exceeds the range set forth in the applicable effluent limitations guidelines.

(Sections 301, 304, 306 and 501 of the Clean Water Act (the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1251 et. seq., as amended by the Clean Water Act of 1977, Pub. L. 95-217))

[47 FR 24537, June 4, 1982]

PART 402—[RESERVED]

PART 403—GENERAL PRETREATMENT REGULATIONS FOR EXISTING AND NEW SOURCES OF POLLUTION

Sec.

403.1 Purpose and applicability.
403.2 Objective of general pretreatment regulation.
403.3 Definitions.
403.4 State or local law.
403.5 National pretreatment standards: prohibited discharges.
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403.7 Revision of categorical pretreatment standards to reflect POTW removal of pollutants.
403.8 POTW pretreatment programs: development by POTW.
403.9 POTW pretreatment programs and/or authorization to revise pretreatment standards: submission for approval.
403.10 Development and submission of NPDES State pretreatment programs.

[1] Effluent standard promulgated (40 CFR Part 129).

[2] The term "compounds" shall include organic and inorganic compounds.

APPENDIX B

State Spill Control Regulations

WISCONSIN REGULATIONS ON HAZARDOUS SUBSTANCES DISCHARGES

(Wisconsin Administrative Code, Chapter NR 158; Effective June 1, 1980)

CONTINGENCY PLAN FOR EMERGENCY ACTIONS IN RESPONSE TO THE DISCHARGE OF HAZARDOUS SUBSTANCES

NR 158.01 Purpose.

The purpose of this chapter is to establish a state contingency plan to provide for efficient, coordinated and effective action to minimize damage to the air, land and waters of this state caused by the discharge of hazardous substances. The state contingency plan is designed to complement federal regional and national contingency plans developed to deal with oil and hazardous substances pollution.

NR 158.02 Applicability.

The provisions of NR 158.03 through NR 158.10 establish actions and procedures for dischargers of hazardous substances, the department of natural resources, and other state and local agencies in responding to discharges of hazardous substances.

NR 158.03 Definitions.

The following definitions are applicable to terms used in this chapter.

(1) "Department" means the department of natural resources.

(2) "Discharge" means, but is not limited to any spilling, leaking, pumping, pouring, emitting, emptying or dumping of a hazardous substance.

(3) "Discharger" means the person or persons having possession of or control over a hazardous substance being discharged or who cause a hazardous discharge.

(4) "Hazardous substance" means any substance or combination of substances, including wastes, of a solid, liquid, gaseous or semisolid form which, because of its quantity, concentration or physical, chemical or infectious characteristic, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, or pose a substantial present or potential hazard to human health or the environment. Such substances may include, but are not limited to, those which are, to the degree determined by the department, toxic, corrosive, flammable, irritants, strong sensitizers or explosive.

(5) "Local agencies" means, but is not limited to, municipal police and fire departments, municipal health organizations, county offices of emergency government, county sheriffs, and emergency medical services.

(6) "Person" means an individual, owner or operator, corporation, partnership, association, municipality, interstate agency or state agency.

(7) "Waters of the state" includes those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, and all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, watercourses, drainage systems and other surface or groundwater, natural or artificial, public or private, within the state or its jurisdiction.

NR 158.04 Response phases and actions.

The actions taken to respond to a hazardous substance discharge can be separated into 5 relatively distinct phases. For descriptive purposes, these are: discovery and notification; evaluation and initiation of action; containment; cleanup and disposal; and restoration of the environme
It must be recognized that elements of a
one phase may take place concurren
with one or more other phases.

(1) Discovery and Notification. Whe
ever the discharge of a hazardous su
stance occurs, it is of utmost importan
that early notification take place so th
prompt and effective actions can be tak
to minimize the effect on human healt
welfare and the environment. Therefor
when a discharge occurs the notificatio
procedures as specified in NR 158.05 an
158.06 shall be taken.

(2) Evaluation and Initiation of Actio
(a) *Evaluation of hazardous substan
discharge.* In order to properly evalua
and deal with a hazardous substance di
charge as much of the following informa
tion as possible should be obtained an
provided when notification is made:

1. Name, address and telephone numbe
of the person reporting the discharge;

2. Name, address and telephone numbe
of the discharger;

3. Date, time, location and duration o
the discharge;

4. Date and time notification is made;

5. Identity, physical state and quantit
of the material discharged;

6. Physical, chemical, hazardous an
toxicological characteristics of th
substance;

7. Cause of incident and corrective mea
sures being taken;

8. Source, speed of movement and desti
nation or probable destination of the dis
charged substance;

9. Distance and direction to the nearest
inhabited dwellings;

10. Areas affected including air sector, surface, ground or drinking waters;

11. Weather conditions existing at the scene;

12. Communications equipment available at the scene.

(b) *Initiation of action.* Once notice of a hazardous substance discharge is received it may be necessary to obtain help from trained personnel capable of dealing with the situation. Until such time as trained personnel arrive at the discharge scene efforts should be directed toward the safety of persons potentially affected by the discharge.

(3) Containment. Defensive actions are usually necessary to stabilize or deal with a discharge emergency before any cleanup and disposal can be accomplished. When needed, these actions shall be implemented as soon after the discharge occurs as practicable and may include, but are not limited to, the following procedures:

(a) *Protection of life and property.* For any agency responding to a hazardous substance discharge first consideration shall always be given to the preservation of human life and property. Actions necessary to carry out this responsibility will usually be carried out by local agencies trained to do so.

(b) *Establishment of decision-making authority at the discharge site.* At the scene of a hazardous substance discharge there may be several different groups of response personnel each with its own specific authorities and responsibilities. In these cases primary decision-making authority will rest with those having specific authority to deal with the highest priority as ranked in the list below. All other agencies roles and activities should be subordinated until the primary concern is eliminated. Subsequent responsibility should then progress to the agency having authority to deal with the next most immediate concern. When it is possible to cooperatively deal with more than one need at the same time, such actions should be simultaneously taken. In every case of decision-making, the consequence of each decision on the subsequent response phases and activities should be weighed and detrimental actions minimized. The priority for decision-making shall follow the ranking of these concerns:

1. Rescue and treatment of injured humans,

2. Prevention of injury to humans,

3. Protection of human dwellings,

4. Protection of potable water supplies,

5. Protection of food stuff and domestic animals used for foods,

6. Protection of the environment,

7. Restoration of transportation usage.

(c) *Establishment of a command post.* When deemed appropriate and in order to most effectively coordinate all actions at the discharge scene, a central control center should be established by the first agency responding. This control center should be located at a safe place near the discharge scene, have adequate communications capabilities and serve the following functions as necessary:

1. Request, assemble, inventory and dispatch responding personnel and equipment,

2. Maintain contact with and direct the activities of personnel at the site of the discharge,

3. Coordinate response activities in accord with the priority ranking established in par. (b) above.

4. Maintain contact with the other persons not at the discharge site who could provide technical assistance or recommend effective response actions.

5. Deal with news media personnel.

(d) *Control discharge source.* The discharge of a hazardous substance should be stopped as soon as possible in order to minimize the effect on human life, property and the environment and to reduce expenses associated with the response.

(e) *Halt or slow the spread of the substance.* The spreading of a hzardous substance should be stopped or slowed as soon as possible. Such actions may include, but are not limited, to the following:

1. Construction of earthen or mechanical barriers such as booms, dikes, or trenches,

2. Use of fog spray on certain gaseous emissions,

3. Avoiding flushing of hazardous substances,

4. Preventing damage to nonleaking containers,

5. Plugging or encapsulating leaking containers,

6. Neutralizing the hazardous substance,

7. Preventing substances from reaching sewer systems, surface waters or groundwaters,

8. Protecting substances from undesirable weather conditions.

(4) Cleanup and Disposal. The cleanup and disposal techniques required are often influenced by the action taken to contain the discharge.

(a) *Cleanup activities.* Actions taken to recover the hazardous substance discharged to the land or waters of the state should comply with existing laws and may include, but are not limited to, the following:

1. Soaking up liquids with absorbants,

2. Use of skimmers or other mechanical collectors,

3. Vacuum dredging for sunken solids and liquids,

4. Chemical treatment of dissolved substances,

5. Aeration of contaminated waters,

6. Excavation of contaminated soils,

7. Installation of recovery trenches or wells.

(b) *Disposal requirements.* Improper disposal often results in merely relocating the hazardous substance discharge problem. All hazardous substances recovered during cleanup operations should be recycled if possible. Non-recyclable hazardous substances and other wastes shall be taken to an approved site and disposed of in an approved manner, or stored in an approved manner and location pending the approval and selection of a disposal site. Approval for proper disposal of hazardous substances shall be obtained through the department.

(5) Restoration of the Environment. Restoration of the environment includes those actions necessary to return the environment as nearly as possible to its original condition before the hazardous substance discharge occurred. Such actions may include, but are not limited to, the replacement or removal of injured plant and animal life and contaminated soils.

(6) Special Considerations.

(a) *Safety of personnel.* Many of the substances involved in incidents are of a toxic nature and pose an imminent threat to life. Therefore, any person, whether civilian or governmental, should exercise caution when entering the affected area until the substance has been identified and

proper protection against the dangers has been taken.

(b) *Wildlife conservation.* Though the preservation of wildlife will not always be the most immediate need, whenever possible this factor shall be considered in developing and implementing any response actions.

NR 158.05 Discharger responsibilities.

(1) Discovery and Notification Requirements. The discharger of a hazardous substance shall immediately notify the department or the designated statewide 24-hour emergency number provided by the division of emergency government, unless the discharge is specifically exempted under s. 144.76(9), Stats. The information provided should include as many of the details outlined in NR 158.04(2)(a) as are available.

(2) Containment, Cleanup, Disposal and Restoration. The discharger shall immediately initiate actions necessary to halt the discharge and to restore the environment to the extent practicable and shall minimize the harmful effects from any discharge to the air, lands or waters of the state. These actions may include, but are not limited to, containment, cleanup, storage, transportation, disposal, restoration or replacement of plants and wildlife and testing of the affected area. The discharger shall keep the department informed and shall secure necessary written approvals from the department for specific actions when such approvals are required by law.

NR 158.06 State and local agencies roles and responsibilities.

(1) The department of local affairs and development's division of emergency government shall:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide a 24-hour toll-free or collect telephone number at which notice of any discharge may be received;

2. Maintain lists of state emergency response personnel;

3. Designate a representative to work with the department to review, evaluate and recommend changes to improve the effectiveness of the contingency plan.

(b) When the discharge of a hazardous substance occurs:

1. Upon receiving notice of a hazardous substance discharge the division of emergency government shall attempt to secure as much of the information outlined in NR 158.04(2)(a) as is available and notify federal, state and local agencies who have the authority to deal with the discharge as follows:

a. Immediately notify the department of any hazardous substance discharge notification received,

b. Immediately alert the national response center of any hazardous substances discharge notification received,

c. Promptly notify the department of agriculture, trade and consumer protection of discharges injuring crops, food, commercial feed, agricultural products or involving any agricultural chemicals such as pesticides, fertilizers or animal drugs.

d. Promptly notify the department of health and social services of discharges of radiation or discharges which may affect human health.

e. Promptly notify the department of labor, industry and human relations of discharges from flammable liquids storage facilities or discharges of anhydrous ammonia, explosives or LP gas.

f. Promptly notify the department of transportation of discharges of hazardous substances associated with the transportation systems including shipping, railroads, highways and pipelines.

g. Promptly notify police or fire departments responsible for the geographic area where the discharge occurs.

2. The division of emergency government shall support containment, cleanup and disposal activities necessary for responding to hazardous substance discharge by providing the following services:

a. Act as a central communications center and provide use of the mobile command center when necessary;

b. Direct inquiries concerning handling and disposal of hazardous substances to the department.

3. The division of emergency government shall be responsible for providing the following written reports and documentation:

a. Maintain a log of all discharge notices received,

b. Forward confirming written documentation to the department of all discharge notices received, including the agencies notified in each case, no later than the following working day after notice was received,

c. Compile an annual summary of all incidents handled for the preceding calendar year and provide a copy to the department.

2. The department of natural resources shall:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide the division of emergency government with a list of department personnel with telephone or radio call numbers who should be called by the division of emergency government when it receives notice of the discharge of a hazardous substance. This list shall be provided by the effective date of this rule and shall be updated as necessary to insure that prompt notification remains possible.

2. Maintain trained personnel capable of coordinating an effective response in the areas of investigation, containment, cleanup and disposal;

3. Acquire and maintain containment and cleanup equipment capable of being mobilized rapidly;

4. Prepare lists of readily available sources of non-department spill equipment and supplies.

5. Prepare lists of private contractors and other persons capable of performing or aiding with the containment, cleanup or disposal of a hazardous substance discharge;

6. Acquire and maintain reference and training materials relating to the investigation, containment, cleanup or disposal of discharges of hazardous substances;

7. Designate a representative to work with other agencies to review, evaluate and recommend changes to improve the effectiveness of the contingency plan.

(b) When the discharge of a hazardous substance occurs:

1. Upon receiving notice of a hazardous substance discharge the department shall:

a. Notify the appropriate department staff, who shall carry out any action the department deems necessary concerning hazardous substances discharges,

b. If the notice of discharge was not received from the division of emergency government, the department shall immedi

ately call the statewide 24-hour emergency number,

c. Alert municipalities of discharge potentially affecting municipal water supplies.

2. When acting on a notice of discharge the department shall, when it deems necessary:

a. Verify that a discharge occurred and determine as much of the information outlined in NR 158.04(2)(a) as possible.

b. Determine the specific geographic area affected and the effect of the discharge on the environment.

c. Determine whether the discharger has taken the actions necessary to stop the discharge and initiated other actions necessary for containment, cleanup, disposal and restoration of the environment.

3. When necessary to insure that the proper containment, cleanup and disposal actions are being taken to restore the environment as nearly as possible to its original condition the department shall:

a. Monitor the activities of the discharger to insure proper action is being taken.

b. Where action required by the discharger is not being adequately taken or the identity of the person responsible for the discharge is unknown, the department or its agent may take any emergency action which it deems appropriate under the circumstances including containing, removing, storing or disposing of the hazardous substance.

c. Coordinate these activities with affected federal, state and local agencies.

4. Provide participating state agencies with copies of any written reports.

(3) The department of agriculture, trade and consumer protection shall:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide the division of emergency government with a list of personnel with telephone or radio call numbers who can be contacted by the division of emergency government when it receives notice of the discharge of a hazardous substance. This list shall be due by the effective date of this rule and shall be updated as necessary to insure that prompt notification remains possible;

2. See that agency personnel are properly trained in emergency response procedures pursuant to the agency's authorities and responsibilities under the laws which the agency administers.

3. Designate a representative to work with the department to review, evaluate and recommend changes to improve the effectiveness of the contingency plan.

(b) When the discharge of a hazardous substance occurs:

1. If the notice of the discharge was not received from the division of emergency government, immediately call the statewide 24-hour emergency number and provide as many of the details outlined in NR 158.04(2)(a) as are available;

2. Assist in the identification of agricultural chemicals and contaminants of agricultural products, food or livestock and provide technical information, laboratory support and/or on scene assistance in dealing with agricultural chemicals or contaminated agricultural products during investigation, containment, cleanup and disposal activities;

3. Supervise the disposition of injured or dead domestic animals, adulterated food, and commercial feed;

4. Assist in the supervision of cleanup and disposal activities on farm crop and livestock lands;

5. Promptly provide the department with a copy or any written report prepared by the department of agriculture, trade and consumer protection;

6. Coordinate these activities with affected federal, state and local agencies.

(4) The department of health and social services shall:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide the division of emergency government with a list of personnel with telephone or radio call numbers who can be contacted by the division of emergency government when it receives notice of the discharge of a hazardous substance. This list shall be due by the effective date of this rule and shall be updated as necessary to insure that prompt notification remains possible;

2. See that agency personnel are properly trained in emergency response procedures pursuant to the agency's authorities and responsibilities under the laws which the agency administers.

3. Designate a representative to work with the department to review, evaluate and recommend changes to improve the effectiveness of the contingency plan.

(b) When the discharge of a hazardous substance occurs:

1. If the notice of the discharge was not received from the division of emergency government, immediately call the statewide 24-hour emergency number and provide as many of the details outlined in NR 158.04(2)(a) as are available;

2. Notify local and federal public health agencies and practicing physicians of discharges of hazardous substances or discharges of ionizing radiation which affect or may affect the health of persons in the locality of the discharge;

3. When necessary, a. Determine the need for investigations, surveillance or monitoring programs to ascertain the impact of a hazardous substance discharge on human health;

b. Implement investigation, surveillance or monitoring programs for any adverse human health effects;

c. Direct the department as to those air, water, and soil samples to be acquired and tested as part of an investigation, surveillance or monitoring program relative to human health.

4. Provide technical information concerning the exposure of humans to hazardous substances and ionizing radiation;

5. Promptly provide the department with a copy of any written report which is prepared by the department of health and social services;

6. Coordinate these activities with affected federal, state and local agencies.

(5) The department of labor, industry and human relations shall:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide the division of emergency government with a list of personnel with telephone or radio call numbers who can be contacted by the division of emergency government when it receives notice of the discharge of a hazardous substance. This list shall be due by the effective date of this rule and shall be updated as necessary to insure that proper notification remains possible;

2. See that agency personnel are proper-

ly trained in emergency response procedures pursuant to the agency's authorities and responsibilities under the laws which the agency administers.

3. Designate a representative to work with the department to review, evaluate and recommend changes to improve the effectiveness of the contingency plan.

(b) When the discharge of a hazardous substance occurs:

1. If the notice of the discharge was not received from the division of emergency government, immediately call the statewide 24-hour emergency number and provide as many of the details outlined in NR 158.04(2)(a) as are available;

2. Initiate and conduct investigations of known or suspected sources of flammable and combustible liquids discharges at fixed facilities and require corrective actions to remedy leaking conditions;

3. Investigate discharges of anhydrous ammonia, explosives and LP gas and require corrective actions pursuant to department of industry, labor and human relations regulations;

4. Promptly provide the department with a copy of any written report which is prepared by the department of labor, industry and human relations.

5. Coordinate these activities with affected federal, state and local agencies.

(6) The department of transportation shall:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide the division of emergency government with a list of personnel with telephone or radio call numbers who can be contacted by the division of emergency government when it receives notice of the discharge of a hazardous substance. This list shall be due by the effective date of this rule and shall be updated as necessary to insure that proper notification remains possible.

2. See that agency personnel are properly trained in emergency response procedures pursuant to the agency's authorities and responsibilities under the laws which the agency administers.

3. Designate a representative to work with the department to review, evaluate and recommend changes to improve the effectiveness of the contingency plan.

(b) When the discharge of a hazardous substance occurs:

1. If the notice of the discharge was not received from the division of emergency government, immediately call the statewide 24-hour emergency number and provide as many of the details outlined in NR 158.04(2)(a) as are available.

2. When necessary, provide traffic control at the discharge scene;

3. When necessary, arrange for the removal of wrecked vehicles and non-hazardous debris at the discharge scene;

4. Promptly provide the department with a copy of any written report which is prepared by the department of transportation;

5. Coordinate these activities with affected federal, state and local agencies.

(7) Local agencies. Local agencies which may become involved in hazardous substance discharges should:

(a) Prepare to deal with a hazardous substance discharge in the following manner:

1. Provide the division of emergency government with a telephone number which should be called when notice of the discharge of a hazardous substance within the local agency's jurisdiction is received.

2. Maintain trained personnel capable of carrying out the local agency's responsibilities in the event of a hazardous substance discharge.

(b) When the discharge of a hazardous substance within its jurisdiction occurs:

1. Any local agency which discovers or receives notification of a hazardous substance discharge from a source other than the division of emergency government should immediately contact the designated statewide 24-hour emergency number and provide as many of the details outlined in NR 158.04(2) as are available.

2. Every effort should be made to coordinate all phases of the response of a local agency with the activities of the department and other local, state, and federal agencies to insure an efficient and effective action is realized.

3. When a local agency becomes involved in a hazardous substance discharge not investigated by the department it is encouraged to promptly provide the department with documentation of its findings and actions.

NR 158.07 Access to property.

The department may upon notice to the owner or occupant, enter any property, premises or place at any time for the purpose of responding to a hazardous substance discharge if such entry is necessary to prevent increased damage to the air, land or waters of the state. Notice to the owner or occupant shall not be required if the delay attendant upon providing it will result in imminent risk to public health or safety.

NR 158.08 Training of personnel.

Training programs for emergency personnel are necessasry to ensure proper, coordinated and effective response to discharges of hazardous substances. To provide this training the department shall:

(1) Conduct annual training sessions to provide specific instruction on the control and the remedy of discharges of hazardous substances.

(2) Direct the training to emergency response personnel including local agency officials and other personnel responsible for responding to emergencies caused by the discharges of hazardous substances;

(3) Combine these training sessions with other training opportunities provided by the department or other agencies and local units of government where combined efforts will result in greater efficiency and effectiveness.

NR 158.09 Exemptions.

The following discharges need not be reported to the department:

(1) A discharge by any person holding a valid permit under ch. 147, Stats., with respect to substances discharged within the limits authorized by the permit.

(2) Discharges by law enforcement officers or members of fire departments using hazardous substances in carrying out their responsibility to protect public health, safety or welfare. These persons are encouraged to report to the department any discharges of a hazardous substance occurring within the performance of their duties.

(3) A discharge by any person discharging in conformity with a permit or program approved under ch. 144, Stats.

(4) The application of a registered pesticide according to the label instructions.

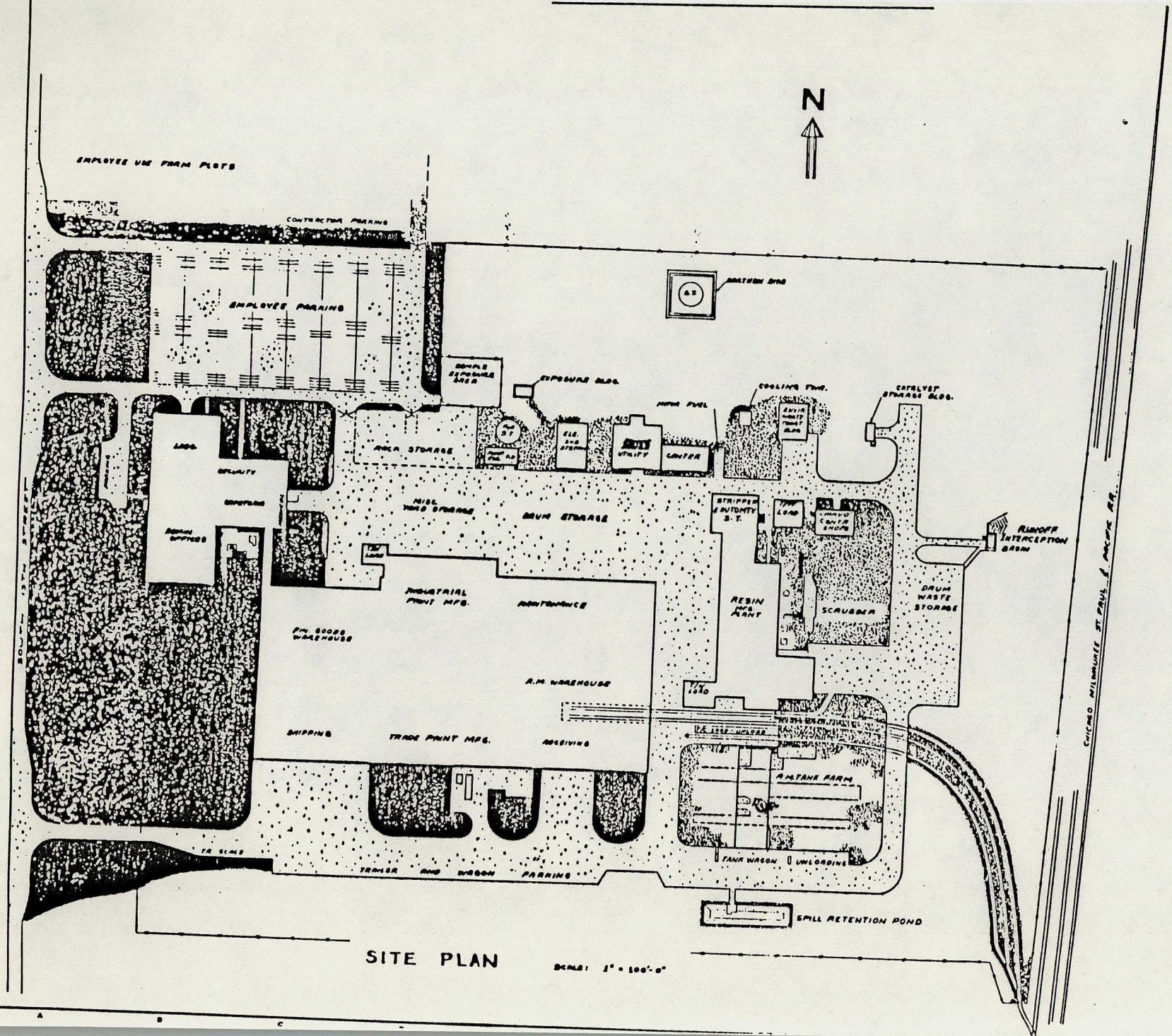
NR 158.10 Severability.

Should any section or portion of this chapter be declared invalid or unconstitutional for any reason, the remainder of the chapter shall not be affected.

APPENDIX C

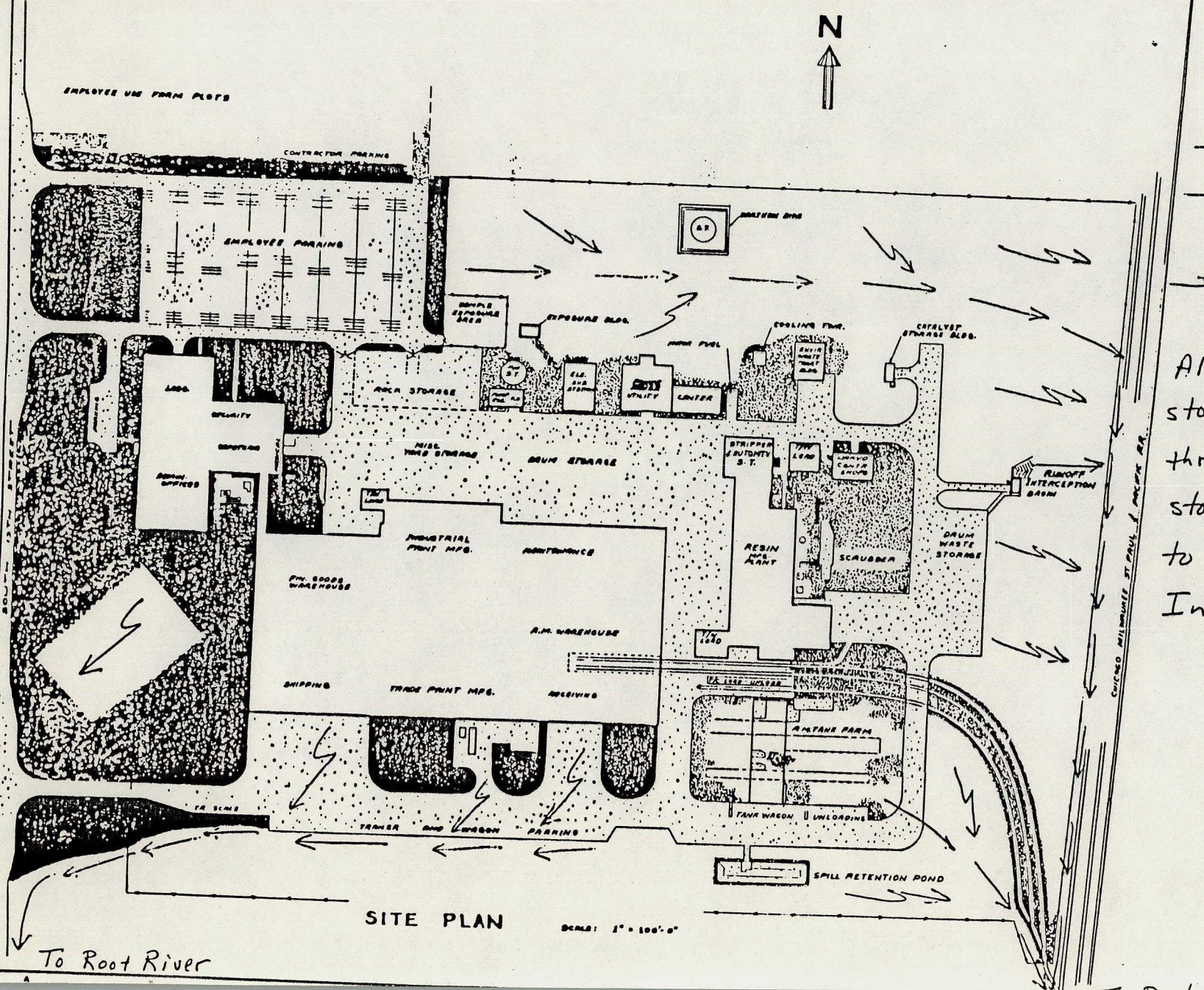
SITE PLANS

General Site Plan



SITE PLAN SCALE: 1" = 100'-0"

General Site Drainage



SITE PLAN

Legend

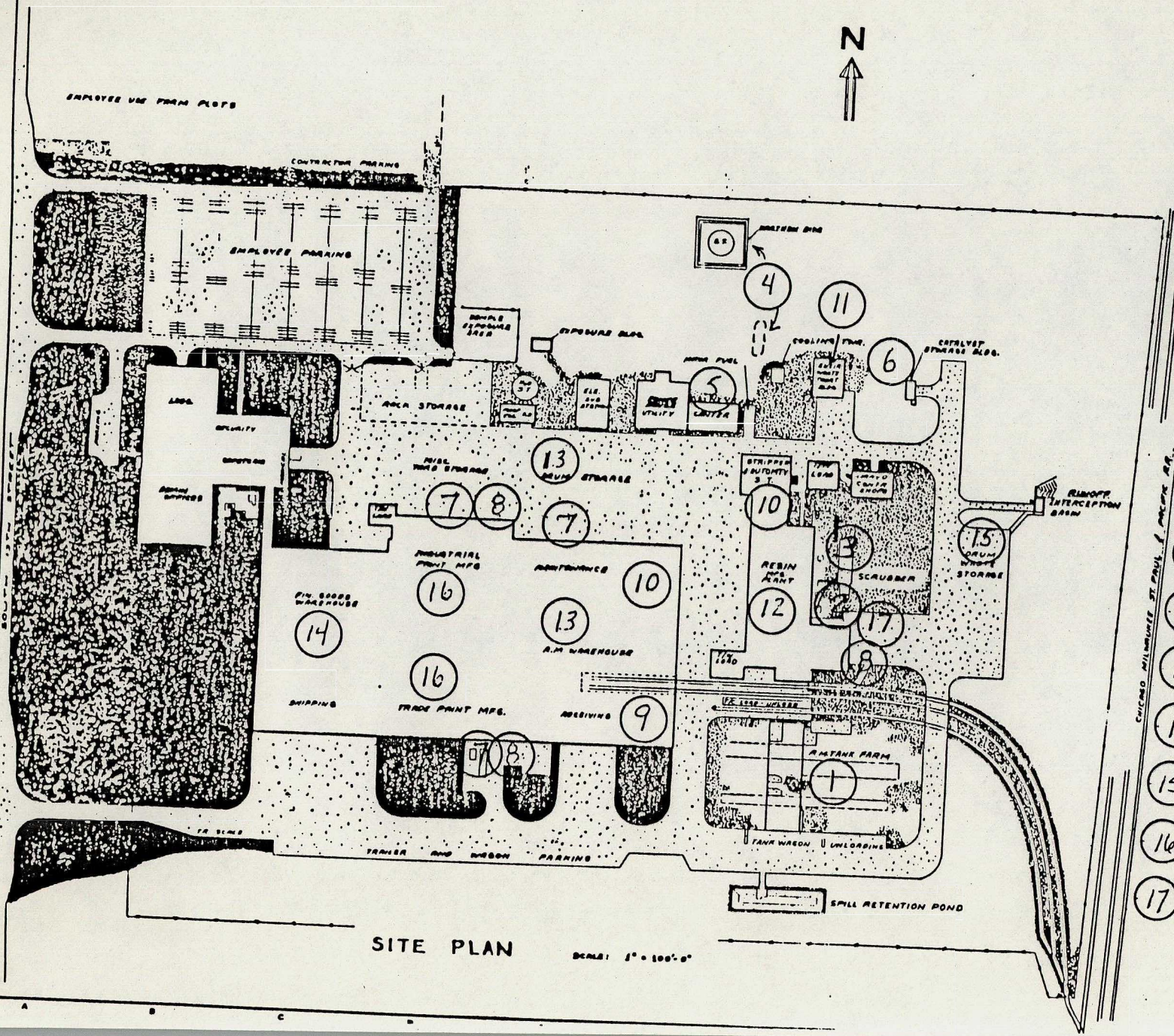
→ Drainage in ditches

→→ Overland flow

All other process and storage areas drain through the plant storm sewer system to the Runoff Interceptor Basin.

To Root River

Storage Areas

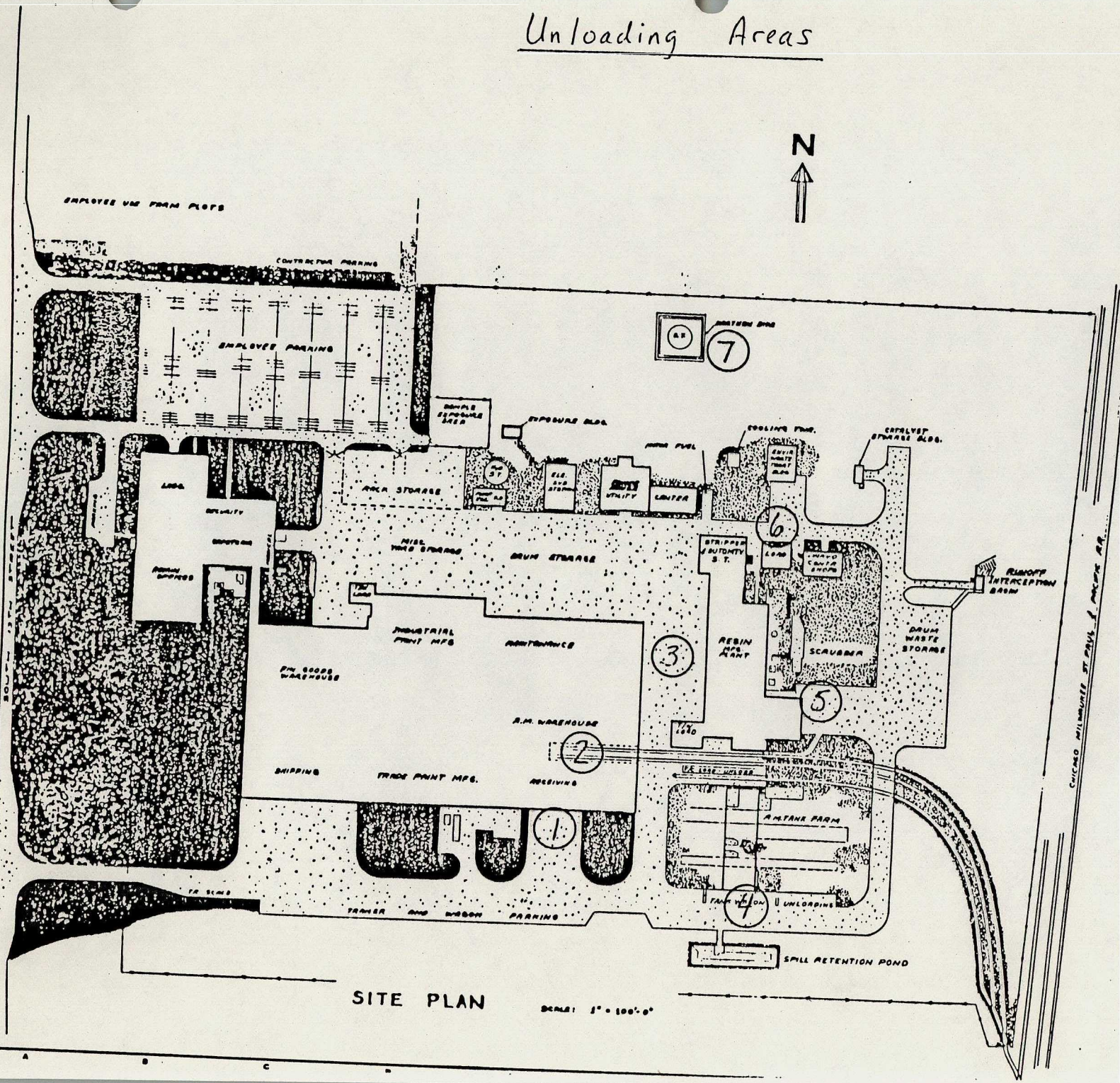


SITE PLAN

Legend

1. Raw Material Tank Farm
2. Phthalic Anhydride
3. D.L. Solvent Cationic Distillate
4. Fuel Oil
5. Heat Transfer Oil
6. Catalyst
7. Dust Collectors
8. Compactors
9. TiO_2 Slurry
10. Resin
11. Waste Treatment
12. Transformers
13. Raw Materials in Drums & Bags
14. Finished Products
15. Hazardous Waste Drums
16. Paint Mix Tanks
17. Solvent Still Waste

Unloading Areas



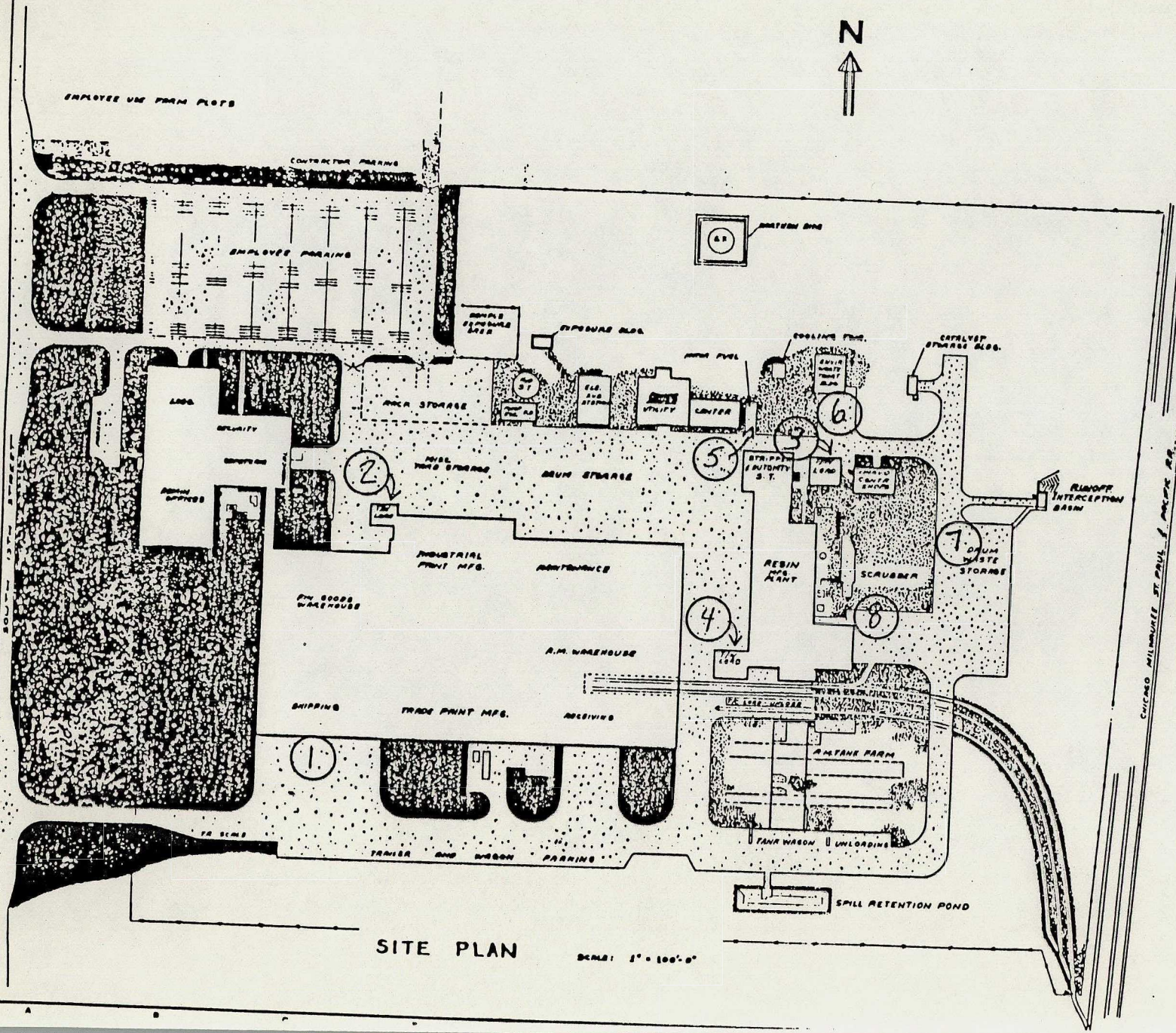
SITE PLAN

SCALE: 1" = 100'-0"

Legend

1. Receiving Dock (Drums, pails, bags)
2. Railway Dock (TiO_2 slurry)
3. Resin Yard (Resins)
4. Tank Farm (Solvents, monomers)
5. E. of Resin Pt (Phthalic Anhydride)
6. N. of Stripper (Resin)
7. Fuel Oil

Loading Areas



SITE PLAN SCALE: 1" = 100'-0"

Legend

1. Shipping (Drums, pails, cans, totes)
2. Tank wagons (Industrial coatings)
3. Tank wagons (Cationic)
4. Tankwagons (Misc. resins/coatings)
5. Over-the-road trucks (Fuel oil)
6. Tankwagons (Hazardous waste)
7. Tractor Trailors (Haz. waste drums)
8. Tankwagons (Cationic distillate)

APPENDIX D

Environmental Compliance Inspection Schedule

DAILY INSPECTION LOG

		Satisfactory	Not Satisfactory	Comments (Use back if necessary)
A) WASTE TREATMENT CENTER:				
Waste levels in organic storage tanks	1901 _____ ft			
	1902 _____ ft			
Waste level in aqueous sludge storage tank	1910 _____ ft			
Waste level in aqueous treatment tanks	1906 _____ %			
	1907 _____ %			
	1908 _____ %			
Inlet and discharge control features: Inlet Valves				
Outlet Valves				
Overflow Ports				
High Level Alerts				
Leakage of waste from any piece of equipment				
B) DRUMMED WASTE STORAGE PAD:				
Evidence of leaking drums or spilled material				
Drums are stacked properly				
The general condition of the drums				
C) RECEIVING DOCK:				
Evidence of leaks or spills				
D) TANK FARM:				
Evidence of leaking tanks or spilled material				
Spill containment basin empty of waste material				

Inspected by: _____ Date: _____

DAILY INSPECTION LOG

	Satisfactory	Not Satisfactory	Comments (Use back if necessary)
E) WASTE RECOVERY OPERATIONS:			
Inlet and discharge control features: Inlet Valves			
Outlet Valves			
High Level Alerts			
Waste levels in dirty solvent storage tanks 122 _____gal			
123 _____gal			
124 _____gal			
ST30 _____%			
Evidence of leaks or spills			
Drum staging area: Leaks or spills			
General condition of drums			
Drums are stacked properly			

Inspected by: _____ Date: _____

Weekly Inspection Log:

Hazardous Waste Areas

	Satisfactory	Not Satisfactory	Comments
Waste Treatment Center			
Condition of treatment/storage tanks:			
1) organic tanks			
2) aqueous tanks			
Condition of piping & pumps			
Condition of confinement structures:			
Condition of area around confinement structures:			
Drummed Waste Storage Pad			
Condition of confinement structures:			
Condition of area around confinement structures:			
Solvent Recovery Still			
Condition of tanks:			
Stills			
Receivers			
Dirty Solvent Storage Tank			
Condition of storage tank(s):			
Condition of confinement structure:			
Condition of area around confinement structure:			
Spill Control Carts			
Resin Plant Cart: 1) Box & cart locked			
2) Key available			
3) Air bottles available			
4) Other			
Paint Plant Cart: 1) Box & cart locked			
2) Key available			
3) Air bottles available			
4) Other			

Date: _____ Inspector: _____

MONTHLY INSPECTION REPORT:

CONFINEMENT STRUCTURE SUMP PUMPS

	Operational	Not Operational
Spill Control Basin Sump Pump		
Trainwell Sump Pump		
Tankfarm Underdrain Sump Pump		

Date:_____ Inspector:_____

APPENDIX E

SOPs

Oak Creek Standard Procedure 0138 | Effective Date December 13, 1983 A-4

Title: EMERGENCY SPILL CONTROL | Revision

Author DAVID SWENSON/DAN SCUDDER | Page 1 of 4 Pages

OBJECTIVE:

This procedure is established to provide plant management with an effective method to safely supervise and control the clean-up of an emergency chemical spill while minimizing the risk of fire, chemical exposure and environmental contamination.

DISTRIBUTION: All SOP Manual Holders

APPROVALS:

J. J. BONINO | C. E. HARRISON | B. W. WALKER

R. J. BAYER | J. M. GEZO | L. LADAGE | R. D. LYON

PROCEDURE:

1. An emergency spill is defined as any spilled material in the plant or yard area that presents a serious fire, health or environmental hazard. Discretion must be used when determining whether or not a spill is an emergency. The Safety and Health Index System will help define hazards associated with spilled raw materials. Generally, any material with the designation "3" or "4" in either the health, flammability or reactivity fields should be considered a serious hazard. All chemicals threatening to escape into a drainage ditch, municipal sewerage system or undiked ground should also be considered serious hazards.

2. In the event of a plant or yard spill, take the following steps:

   a. The supervisor responsible for the spilled material must determine whether or not the spilled material presents a serious hazard.

   b. If the spilled material presents a serious hazard, warn others away from the spill area. If the spilled material presents a serious fire hazard, pull the nearest fire alarm.

   c. Obtain spill control cart and follow spill clean-up procedures (attached and posted inside cover of spill control box).

PROCEDURE: (continued)

3. Controllable Spills - If spill is not immediately hazardous to health, it should be contained in any convenient manner. This may constitute use of sandbags, oil dry, toweling, or other convenient materials. However, after a spill in the yard occurs, the first thing that should be checked is if the plugs are in the yard drains. If the yard drain plugs are in place and the spill is contained, an area supervisor should be notified and clean-up commenced. The following actions should be taken:

   a. Notification should be made to the safety and environmental engineers.

   b. A determination of the method(s) to be used to clean-up the spill should be made. This may involve anything from using mops and brooms, to calling in an industrial cleaning service. If guidance is needed, check with the safety or maintenance departments. For small to medium sized spills, or serious hazard spills, there are two "Spill Control Carts" available. One is located in the Resin Plant Environ BT Room, and the other is located in the Paint Plant in the Small Order Department (first floor). Instructions for using the facilities on the cart are located inside the metal box on the cart, and attached to this SOP.

   c. When the spill is cleaned-up, all equipment should be cleaned and replaced.

   d. Never discharge any materials to any sewer or drain, or allow any of the wastes or clean-up materials to leave the plant property. When there is doubt, contact the environmental engineer.

   e. Wastes placed in drums or other containers should be brought to the attention of the environmental engineer. Drummed waste must be properly labeled per instructions from the environmental engineer.

4. Uncontrolled Spills - An uncontrolled spill is one which is not contained. Any spilled material escaping uncontrollably into the air, soil, any water channel, ditch or sewer, is not contained and therefore, not controlled. If the spill cannot immediately be contained in a safe manner, both the safety and environmental engineers must be contacted immediately. If the spill is the result of an equipment malfunction, the Maintenance

PROCEDURE: (continued)

Department should also be contacted. In the event of an uncontrolled spill, notify:

a. The Area Supervisor
b. The Safety Engineer
c. The Environmental Engineer.

Await instructions from those notified, or if proper equipment is immediately available commence control measures.

5. Use of Spill Control Cart - The Spill Control Cart contains equipment that will be needed to begin a spill clean-up, additional equipment and materials will need to be obtained. The followng table indicates equipment available on the carts and conditions for its use.

A. AFFF Fire Extinguishers	A. To suppress hazardous or flammable vapors or to extinguish flammable liquid fires.
B. Breathable Air Equipment	B. To be used while cleaning up toxic chemicals such as Formaldehyde or Isocyanates. Air pressure must be regulated to 90 psi.
C. Chemical Resistant Clothing Including Gloves and Boots	C. Protective equipment must be worn whenever chemicals are being cleaned up or handled.
D. Absorbent Material	D. Used to build dikes or absorb liquid; absorbed liquid can be shoveled into an open head drum.
E. Miscellaneous Tools	E. Bung wrenches, screwdrivers, pliers, adjustable wrenches, etc.
F. Drum Head Vacuum	F. See Number 6.

PROCEDURE: (continued)

6. Operation of the Air Operated Vacuum

a. Unlock the spill cart and air bottles, and open box with the key. A key is located in a glass enclosure on the wall immediately in the area of the cart. Break the glass with a tool such as a drum bung wrench and remove the key to unlock the cart and air bottles, and vacuum head; four padlocks must be opened.

b. Take the spill cart and air bottles to the spill scene.

c. At the spill scene, remove the vacuum head and drum from the spill cart. DO NOT fill drum while it is on the cart.

d. Find the 1½" black vinyl hose in the box and attach one end to the vacuum head. Attach the other end to the aluminum suction wand, also found in the box.

e. A floor tool for the vacuum is also in the box. Attach the tool to the floor end of the suction wand.

f. Connect one end of the 100' plant air hose found in the box to the vacuum head, and the other end to plant air.

g. Open plant air valve.

h. Open the air valve on the vacuum head. Adjust control valves for more or less vacuum if necessary.

i. Use vacuum hose and cleaning attachment like a vacuum cleaner. Vacuum will automatically shut off when drum fills with liquid.

j. Put vacuum head on an empty drum if more vacuuming is required. Empty drums can be obtained by contacting the Receiving or Preassembly supervisor.

k. Clean all equipment when finished. All cleaning solvent, absorbent, clean-up rags, etc., should be placed into an open head drum, labeled and sent to the Waste Treatment Center.

l. Contact environmental engineer for proper labeling and disposal of all wastes put in drums.

m. Replace spill cart and air cylinders and notify the Safety Department (through Security if used on an off shift).

7. Training - Supervision in effected areas will review emergency spill control procedures at least yearly with all production personnel.

SPILL CONTROL PROCEDURE:

(1)-USE NECESSARY PROTECTIVE EQUIPMENT
-RESPIRATOR VAPOR/SUPPLIED AIR
-PROTECTIVE CLOTHING/BOOTS

(2)-CONTAIN SPILL WITH ABSORBENT

(3)-USE FOAM EXTINGUISHERS TO CONTAIN HAZARDOUS OR FLAMMABLE VAPORS

(4)-REMOVE DRUM AND VACUUM HEAD FROM CART, CONNECT AIR AND VACUUM HOSES, BEGIN CLEAN UP

(5)-PLACE ALL CONTAMINATED MATERIALS IN OPEN HEAD DRUMS

(6)-REPORT USE OF CART TO SAFETY DEPARTMENT

Title GENERAL EVACUATION PROCEDURES Effective Date 1/31/81

For B.W. WALKER Revision #3 to SOP dated 6/30/81

SUBJECT:

General procedures are needed for orderly evacuation in the event of a real or potentially hazardous situation.

DISTRIBUTION:

All Employees (including new employees and temporary employees)

APPROVALS:

G.J. BONINO

B.W. WALKER

PROCEDURE:

1. A bell or horn signal will be sounded to indicate the need for a plant evacuation. The signal will be a one digit number. The number will tell the fire zone that is to be evacuated.

   EXAMPLE: Honk Honk Honk (pause) Honk Honk Honk
   (The three honks will repeat several times)

   This is the alarm for Zone #3.

   EXAMPLE: Honk (pause) Honk (pause) Honk
   (The one honk will repeat)

   This is the alarm for Zone #1

EMERGENCY ZONES AND DIRECTIONAL CENTERS

Zone No.	Zone Location	Emergency Dir. Center
1	Administration Bldg.	East Door
2	Finished Goods	North Truck Door
3	Paint Production	North Truck Door - Ind.
4	Receiving Warehouse	North Truck Door
5	Resin	West Center Door
6	Utility Center/Waste Treatment	South Door-Utility Center
7	Tank Farm	MCC Elec. Building

When you hear your fire zone signal, you will immediately shut off any flowing liquids, and exit the building through the nearest exit. You will close all fire doors you go past on your way out, and gather in one group at the assigned area as follows:

PROCEDURE: (continued)

ZONE 1 - OFFICE BUILDING

If this signal is heard, all the people in the Office Building will leave the building. They will either gather in a group in the center of the parking lot, or in a group in the middle of the grassy area south of the Office building, depending on which door they exit.

ZONE 2, 3, and 4 - FINISHED GOODS, PAINT MANUFACTURE, RAW MATERIAL, MAINTENANCE

If any one of these signals is heard, all the people in all three of these areas will leave the building. They will either gather in a group at the area behind the water storage tank, or at the truck scale, depending on whether they exit to the north or south of the buildings.

ZONE 5 and 7 - RESIN PLANT AND TANK FARM

If either of these signals is heard, all the people in these zones will leave. They will gather east of the service read or just outside the maintenance shop area depending on which exit they use.

ZONE 6 - OUTER BUILDINGS, UTILITY CENTER, WASTE TREATMENT

People in this zone will leave and gather just outside the Maintenance Shop Area.

2. People in other zones that have not been signalled will shut off any equipment, turn off any flowing liquids, and stand by inside your building at an area designated by your Warden. (Supervisor's Office)

3. Members of the Maintenance Department are to evacuate on any signal and gather at the Utility Center for further instructions.

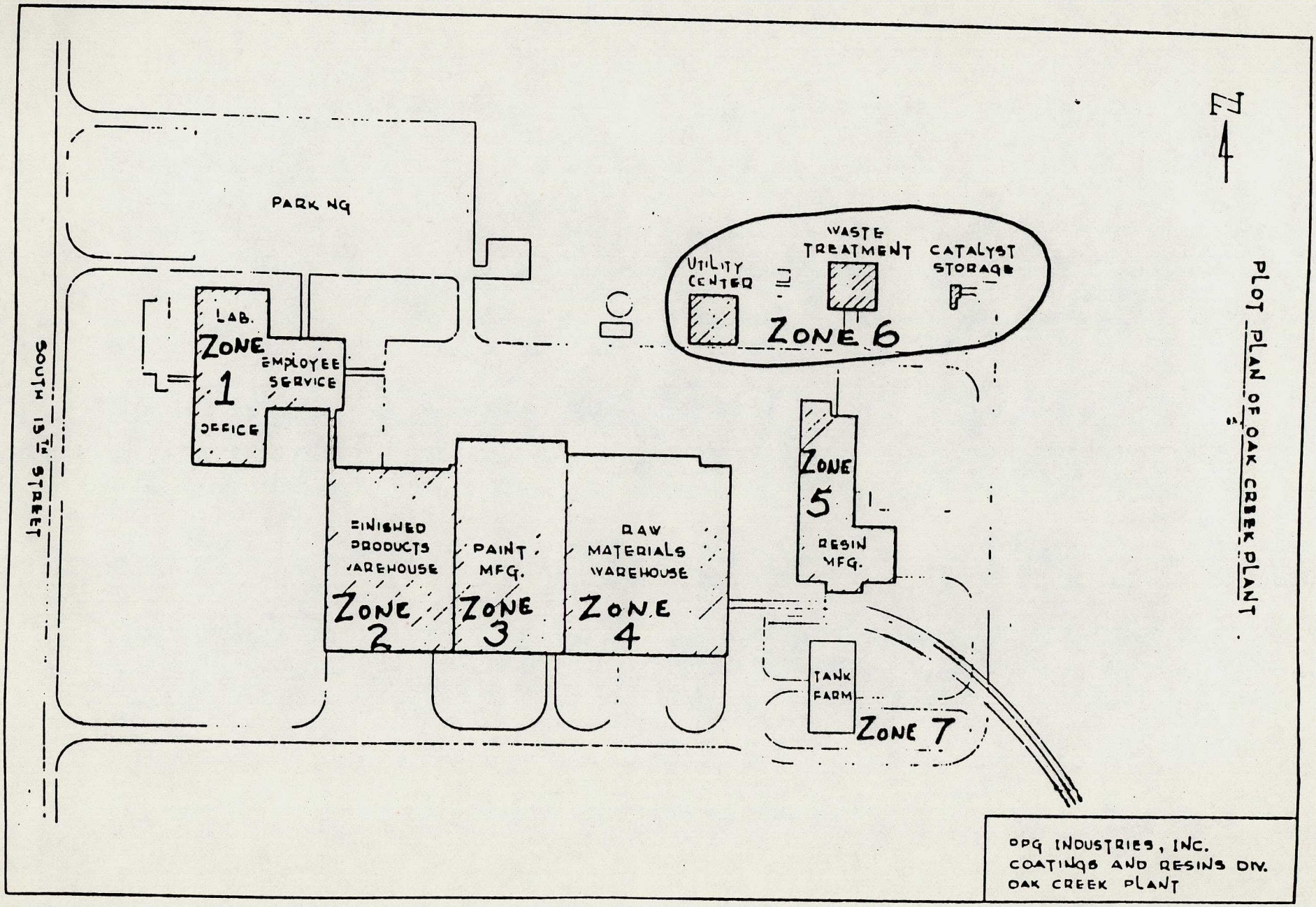
4. At the All Clear Signal, everyone may resume your work. The All Clear Signal will be given by the Safety Director or his designated representative, and will be announced over the Public Address System.

PROCEDURE: (continued)

6. All tractor trailer drivers must report to their tractors and wait for instructions from PPG or Fire Department personnel. Tractor trailer rigs must not be moved, except when so instructed, due to interference with emergency vehicles.

7. Visitors, contractors and servicemen will evacuate along with PPG personnel in the area where they are at the time of the alarm.

8. News media teams will not be allowed into the plant. Thev must be escorted to the parking lot or administrative building by you or the police, and their questions must be referred to the plant manager or personnel director.


PARKING
SOUTH 13TH STREET
LAB.
ZONE 1
EMPLOYEE SERVICE
OFFICE
FINISHED PRODUCTS WAREHOUSE
ZONE 2
PAINT MFG.
ZONE 3
RAW MATERIALS WAREHOUSE
ZONE 4
ZONE 5
RESIN MFG.
UTILITY CENTER
WASTE TREATMENT
CATALYST STORAGE
ZONE 6
TANK FARM
ZONE 7
N
PLOT PLAN OF OAK CREEK PLANT
PPG INDUSTRIES, INC.
COATINGS AND RESINS DIV.
OAK CREEK PLANT

0109

Creek Standard Procedure 140 Effective Date 6/11/84

Title HANDLING PRESSURIZED DRUMS Revision

Author D. Swenson Page 1 of 3 Pages

Ref Index

SUBJECT:

Pressurized drums present a serious hazard to all persons involved with attempts to relieve over-pressures from drums. In order to minimize risk, the following procedures must be followed whenever a pressurized drum is discovered on our property.

DISTRIBUTION:

All SOP Manual Holders

APPROVALS:

N. Marvich

J. Gezo

R. Lyon

C. Harrison

R. Bayer

B. Walker

PROCEDURE:

1. Move a safe distance away from the container and assign someone to observe the area to be sure that the area around the pressurized drum is kept clear.

2. Go to the Northeast corner of the Small Order Department and retrieve the wheeled drum puncturing unit (located adjacent to the spill control cart).

PROCEDURE: (continued)

3. If the pressurized drum is located inside a manufacturing area or warehouse, it must be taken to an isolated location outside the plant. The drum should be handled by a fork truck equipped with a drum handling attachment or cascade-type forks (cascade-type fork are the preferred method).

4. The pressurized drum should be taken to the location where the drum puncturing unit has been placed.

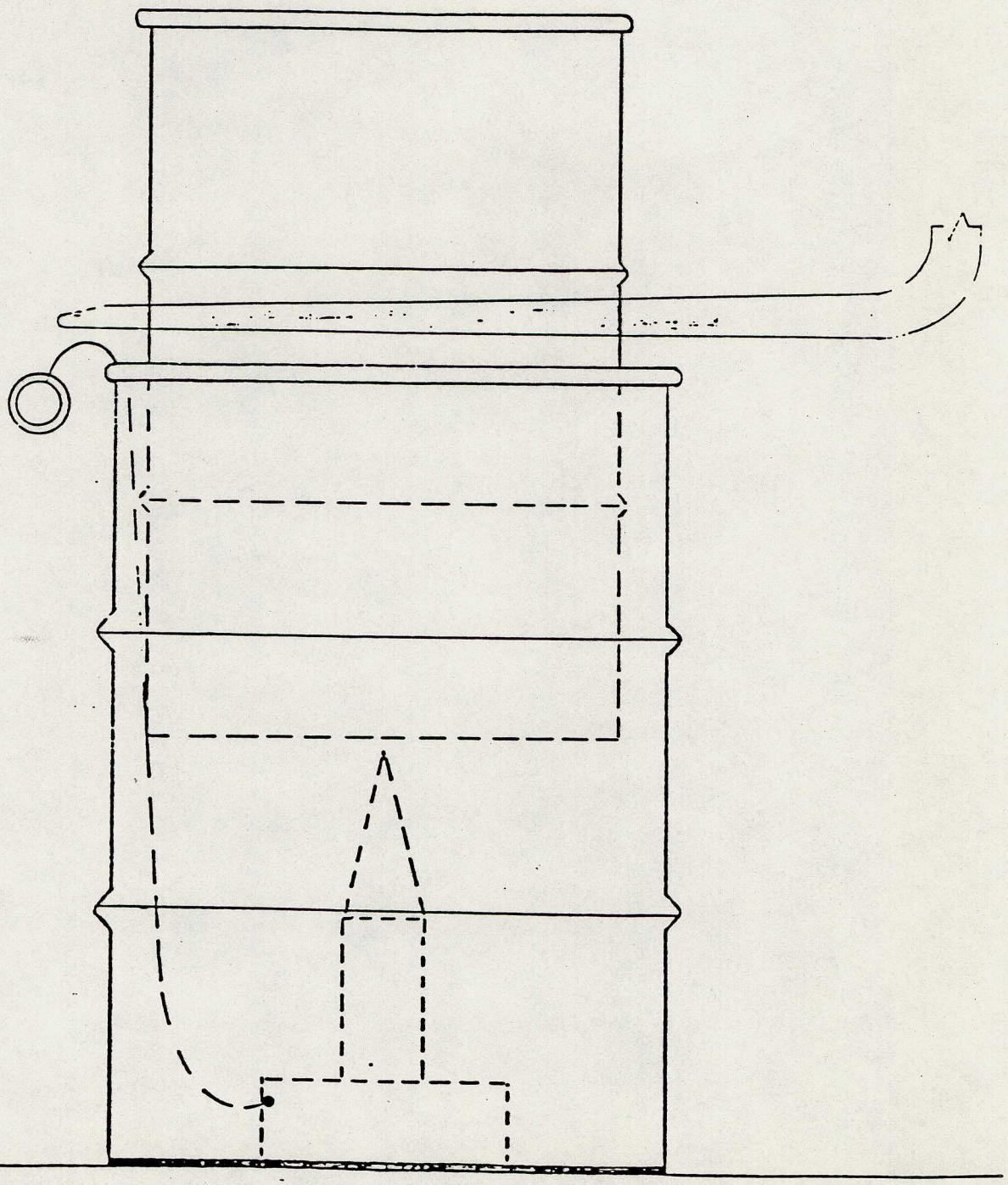
5. A fork truck equipped with cascade-type forks or a suitable drum handling attachment should be used to grasp the drum and lower it into the drum puncturing unit. (See attachment A)

6. The weight of the drum will normally not be sufficient to cause the puncturing unit to penetrate the bottom end of the drum; therefore it will be necessary to raise the forks and apply a slight downward pressure on the drum to cause the unit to puncture the drum. Once this is done the drum bung can be removed and the drum can be grasped with the forks and raised to allow the material to drain into the overpacked drum. (All personnel except the lift truck driver must remain a safe distance from the drum at all times).

7. Contact the department head responsible for the product to determine what is to be done with the material.

8. Never place the material into a sealed drum until it is certain the reaction is complete.

ATTACHMENT A



APPENDIX F

Spill Cleanup Materials

INSPECTION DATE: May 1984

MONTHLY INSPECTION SHEET

EMERGENCY SPILL CONTROL CART

Insepction Item	Resin Cart	Paint Cart
1. Cart in position, unobstructed and locked	1. (Yes) / No	1. (Yes) / No
2. Key is in key box	2. (Yes) / No	2. (Yes) / No
3. Vacuum head and air cylinders in position and locked	3. Yes / (No)	3. (Yes) / No
4. AFFF Extinguishers inspected	4. (Yes) / No	4. (Yes) / No
5. All respirators inspected and tested	5. (Yes) / No	5. (Yes) / No
6. Airline Regualtor, two hoses with connections, crescent wrench and regulator key are in box	6. (Yes) / No	6. (Yes) / No
7. Six Chemical resistant suits, three pair rubber boots and rubber gloves are available	7. (Yes) / No	7. (Yes) / No
8. Absorbant material is in boxes	8. (Yes) / No	8. (Yes) / No
9. Isocyanate neutralizing solution is available and unobstructed.	9. N/A	9. (Yes) / No

Comments or suggestions about materials used on Emergency Spill Control Carts:

Resin Spill Control Cart - Still NO VACCUM Head and The large Red Hose is still gone.

May 22, 1984 - Resin spill control has Vaccum head but NO Long Red Hose.

APPENDIX G

Environmental Spill Report

Return Completed Form to
L. N. Streit
Manager, Environmental
Engineering & Control
POB 9, Rosanna Drive
Allison Park, PA 15101
(412) 487-4500
(Intercom 855-402)

PPG INDUSTRIES

COATINGS & RESINS DIVISION

ENVIRONMENTAL SPILL REPORT

SPILL DATA

Date _____
Time _____
Location _____
Quantity
Spilled _____
Contained _____
Discharged to Environment _____
- ☐ Storm Sewer
- ☐ Sanitary Sewer
- ☐ Other

Composition or Product Name, Code, and Batch No. _____

Circumstances Related to Spill _____

- ☐ Estimated
- ☐ Analysis of Sample
  - _____ Location
  - _____ Date

NOTIFICATIONS

	PERSON & LOCATION	DATE & TIME	NOTIFIED BY
PPG C&R Environmental			
US-EPA or US Coast Guard			
State Env. Auth.			
Sanitary Auth.			
Water Companies			

CONTAINMENT & DISPOSAL

_____

ACTIONS TAKEN TO PREVENT RECURRENCE

_____

REPORT PREPARED BY:

Name _____ Position _____ Date _____

Location _____ Telephone No. _____

ATTACHMENT G-3

EMERGENCY EQUIPMENT

AVAILABLE THROUGHOUT THE FACILITY

(SUBJECT TO CHANGE)

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FLASHLIGHT	1		FIRE TRUCK		
EQUIPMENT	No. Req.	No. Avail.	EQUIPMENT	No. Req.	No. Avail
MSA AIR PACKS	9		FIRE HATS	6	
FIRE COATS	27		SHOVELS	2	
FIRE BOOTS (Pr.)	27		BROOMS	2	
GLOVES (Pr.)	27		PIKE POLES	2	
FIRST AID KIT	1		FOAM INDUCTORS (Set at 6%)	2	
BLANKETS	2		1&1/2" NOZZLES	4	
FOAM (6% AFFF)	6		HYDRANT WRENCHES	6	
AXES	2		SPANNER WRENCHES	5	
HOSE FITTINGS			HYDRANT CAPS	2	
SPLINT KITS	2		HOSE CLAMP	1	
PRY BARS	2		HOSE HOLDERS	2	
LANTERNS (6 BATS)	3		GATE VALVES (HYDRANT)	3	
BULL HORN	1		Y VALVES (ON HORN)	2	

1. Check Truck Operation by driving approx. 20 miles.

   Comments: _____

   _____

2. Check tires, battery water, coolant, lights, horn, and wipers.

3. Check storage of hose on truck for easy access.

4. Check water storage tank temperature. TEMP. _____

DOOR ALARMS		
LOCATIONS (Admin. Bldg.)	OPERATION	COMMENTS
1. South Hall Exit		
2. Technical West Hall Exit		
3. Technical East Hall Exit		
4. Technical Rm. 89 Exit		

RESPIRATOR TOWELETTE DISPENSERS

NUMBER	LOCATION	DATE FILLED	CHECKED BY	COMMENTS
# 1	Tech Rm 96 Dispersion Lab	5-8-1984	Danica E.	
# 2	Ind. Filling 1st Floor	5-8-1984	Danica E.	
# 3	Small Order 1st Floor	5-8-1984	Danica E.	
# 4	Preassembly 1st Floor	5-8-1984	Danica E.	
# 5	Trade Sales 1st Floor	5 8-1984	Danica E.	
# 6	Trade Sales 2nd Floor	5-8-1984	Danica E.	
# 7	Ind. Mix 2nd Floor	5-8-1984	Danica E.	
# 8	Receiving Office Outside	5-7-1984	Danica E.	
# 9	Resin 1st Floor	5-7-1984	Danica E.	
#10	Resin 2nd Floor Control Room	5-7-1984	Danica E	
#11	Ind. Mix West Wall Center by Office	5-8-1984	Danica E.	
#12	Waste Treatment Center	5-8-1984	Danica E.	

INSPECTION DATE: May 1984

MONTHLY INSPECTION SHEET

EMERGENCY SPILL CONTROL CART

Insepction Item	Resin Cart	Paint Cart
1. Cart in position, unobstructed and locked	1. (Yes) No	1. (Yes) No
2. Key is in key box	2. (Yes) No	2. (Yes) No
3. Vacuum head and air cylinders in position and locked	3. Yes (No)	3. (Yes) No
4. AFFF Extinguishers inspected	4. (Yes) No	4. (Yes) No
5. All respirators inspected and tested	5. (Yes) No	5. (Yes) No
6. Airline Regualtor, two hoses with connections, crescent wrench and regulator key are in box	6. (Yes) No	6. (Yes) No
7. Six Chemical resistant suits, three pair rubber boots and rubber gloves are available	7. (Yes) No	7. (Yes) No
8. Absorbant material is in boxes	8. (Yes) No	8. (Yes) No
9. Isocyanate neutralizing solution is available and unobstructed.	9. N/A	9. (Yes) No

Comments or suggestions about materials used on Emergency Spill Control Carts:

Resin Spill Control Cart - Still NO VACCUM Head and The large Red Hose is still gone.

May 22, 1984 - Resin spill control has Vaccum head but NO Long Red Hose.

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FIRE EXTINGUISHERS

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
			SHIPPING									
1	ABC	20	W Wall - NW Corner		√	√	√	√	√	√	1	X
2	ABC	20	W. Center Wall - NW Exit		√	√	√	√	√	√	2	X
3	ABC	20	W. Center Wall - SW Exit		√	√	√	√	√	√	3	X
4	ABC	20	S. Wall - Doors 3 & 4		√	√	√	√	√	√	281	X New Bag & Tag
5	ABC	20	S. Wall - Doors 7 & 8		√	√	√	√	√	√	282	X New Seal & Bag & Tag
6	ABC	20	S. Wall - Door 14		√	√	√	√	√	√	6	X
9	CO2	15	Mezzanine by Ship. Office		√	√	X	√	√	√	153	X 88 lbs.
10	ABC	20	Mezzanine Storage Room		√	√	√	√	√	√	10	X
11	CO2	15	East Wall - SE Corner		√	√	X	√	√	√	126	X 81 lbs.
12	ABC	20	East Aisle - Tinting Area		√	√	√	√	√	√	301	X New Bag & Tag
13	CO2	15	E. Wall - Battery Room		√	√	X	√	√	√	18	X 89 lbs.
14	ABC	20	N. Wall - NE Exit		√	√	√	√	√	√	14	X New Bag & Tag
15	ABC	20	N. Wall - Center		√	√	√	√	√	√	15	X
16	ABC	20	N. East - West Aisle		√	√	√	√	√	√	16	X
17	ABC	20	S. East - West Aisle		√	√	√	√	√	√	17	X
18	CO2	15	Mcc Room - East Wall Mezz.		√	√	X	√	√	√	166	X 81 lbs.
121	M	30	Tank Truck Loading Rack- Outside		√	√	√	√	√	√	300	X New Bag + Tag
276	Ansul	30	Tank Truck " mezz "		√	√	X	√	√	√	276	X New Bracket Tag + Seal
266	Ansul	30	" " South Corner		√	√	X	√	√	√	266	X New Bag + Tag
			ADMINISTRATION									
19	ABC	20	Hallway - Safety Office		√	√	√	√	√	√	19	X
20	ABC	20	N. Cafeteria Entrance		√	√	√	√	√	√	20	X
21	ABC	20	Mech. Equip. Rm.-1st Flr		√	√	√	√	√	√	21	X
22	ABC	20	Mech. Equip. Rm.-Roof		√	√	√	√	√	√	22	X
23	ABC	20	NE Entrance - Accounting		√	√	√	√	√	√	23	X
24	HA	4	Computer Rm.-East Door		X	√	√	√	√	√	24	X
25	HA	4	Computer Rm.-SW Door		X	√	√	√	√	√	25	X

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OAK CREEK
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FIRE EQUIPMENT INSPECTION

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Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
26	HA	4	Keypunch - North Door		X	√	√	√	√	√	26	X
27	W	2&1/2	NW Corner - Accounting		√	√	√	√	√	√	27	X
28	W	2&1/2	SW Corner - Accounting		√	√	√	√	√	√	28	X
29	W	2&1/2	Op. Planning - W. Wall		√	√	√	√	√	√	29	X
30	ABC	20	Hallway-Plnt. Mgr. Office		√	√	√	√	√	√	30	X
31	ABC	20	Hallway-Near Lobby		√	√	√	√	√	√	31	X
188	HA	4	Mail Room - East Wall		X	√	√	√	√	√	188	X
			TECHNICAL									
32	ABC	20	Hall Outside Rm. 94		√	√	√	√	√	√	32	X
33	HA	4	Advanced Dev. Rm. 102		X	√	√	√	√	√	33	X
34	HA	4	Lacquer Lab Rm. 101		X	√	√	√	√	√	34	X
35	HA	4	Ind. Lab Rm. 100		X	√	√	√	√	√	35	X
36	HA	4	Salt Spray Rm. 98		X	√	√	√	√	√	36	X
37	HA	4	Physical Test Rm. 97		X	√	√	√	√	√	37	X
38	ABC	20	Hall Outside Rm. 97		√	√	√	√	√	√	38	X
39	HA	4	Dispersion Lab Rm. 96		X	√	√	√	√	√	39	X
40	HA	4	Mini-Tint Rm. 95		X	√	√	√	√	√	40	X
41	HA	4	Spray Room Rm. 94		X	√	√	√	√	√	41	X
42	HA	4	Oven Room Rm. 93		X	√	√	√	√	√	42	X
43	HA	4	Ransburg Rm. 92		X	√	√	√	√	√	189	X
44	ABC	20	Hall Outside Rm. 80		√	√	√	√	√	√	44	X
45	HA	4	Auto Lab Rm. 80		X	√	√	√	√	√	45	X
46	HA	4	Trade Sales Rm. 81		X	√	√	√	√	√	190	X
47	HA	4	Millwork Rm. 82		X	√	√	√	√	√	47	X
48	HA	4	Flat Work Rm. 83		X	√	√	√	√	√	48	X
49	HA	4	North End Rm. 88		X	√	√	√	√	√		X

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OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FIRE EXTINGUISHERS

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
50	HA	4	South End Rm. 88		X	✓	✓	✓	✓	✓	50	X
51	ABC	20	Hall Outside Rm. 88		✓	✓	✓	✓	✓	✓	51	X
52	HA	4	Auto Oven Spray Rm. 86		X	✓	✓	✓	✓	✓	52	X
53	HA	4	South End Rm. 89		X	✓	✓	✓	✓	✓	53	X
54	HA	4	North End Rm. 89		X	✓	✓	✓	✓	✓	54	X
55	ABC	20	North End Rm. 89		✓	✓	✓	✓	✓	✓	55	X
58	ABC	20	Deck Railing-Rm. 89		✓	✓	✓	✓	✓	✓	81	X
174	ABC	20	North Wall Rm. 92		✓	✓	✓	✓	✓	✓	174	X
268	ABC	20	Dispersion Lab Rm 96-W		✓	✓	X	✓	✓	✓	268	X
			SMALL ORDER & PREASSEM.									
60	ABC	20	Center - Small Order		✓	✓	✓	✓	✓	✓	67	X
61	ABC	20	SW - Small Order Area		✓	✓	✓	✓	✓	✓	61	X Broken Handle
62	ABC	20	SE - Small Order Area		✓	✓	✓	✓	✓	✓	158	X New Bag
63	ABC	20	S Wall - " " "		✓	✓	✓	✓	✓	✓	63	X New Bag & Tag FE
64	ABC	20	NE Corner - Raycron Rm.		✓	✓	✓	✓	✓	✓	64	X
65	ABC	20	N Side Pre-Assembly		✓	✓	✓	✓	✓	✓	65	X
66	ABC	20	Outside SW Exit-Racron Rm		✓	✓	✓	✓	✓	✓	66	X New Bag
187	ABC	20	S Wall - Raycron Rm.		✓	✓	✓	✓	✓	✓	187	X

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FIRE EXTINGUISHERS

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSES	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
			TRADE SALES									
67	ABC	20	1st Fl. - NW Trade Area		√	√	√	√	√	√	78	X
68	ABC	20	1st Fl. - NE Trade Area		√	√	√	√	√	√	115	X New Bag & Tag
69	ABC	20	1st Fl.- Wall by Elevator		√	√	X	√	√	√	20	X
70	ABC	20	1st Fl. - SW Trade Area		√	√	√	√	√	√	154	X
71	ABC	20	1st Fl. - SE Trade Area		√	√	√	√	√	√	71	X
72	ABC	30	1st Fl. - Label Room		√	√	√	√	√	√	123	X
73	ABC	20	1st Fl.-Maint. Tool Shop		√	√	√	√	√	√	73	X
94	ABC	20	2nd Fl. - SW Trade Area		√	√	√	√	√	√	94	X
102	ABC	20	2nd Fl. - N Center Trade		√	√	√	√	√	√	102	X
10[illegible]	ABC	20	2nd Fl. - NE Trade Area		√	√	√	√	√	√	103	X New Bag
104	ABC	20	2nd Fl. - S. Center		√	√	√	√	√	√	104	X
105	ABC	20	2nd Fl. - SE Corner		√	√	√	√	√	√	105	X
110	C02	15	3rd Fl. - Meter Deck		√	√	X	√	√	√	90	X 39 lbs.
176	ABC	20	3rd Fl. - Meter Deck		√	√	√	√	√	√	285	X
114	ABC	20	3rd Fl. - Equip. Mezz. N		√	√	√	√	√	√	284	X
115	CO^2	15	3rd Fl. - Equip. Mezz. S		√	√	X	√	√	√	296	X 15 lbs. New Bag & Tag
			INDUSTRIAL									
			1st Floor & Mezz.									
56	ABC	20	NW Ind. Area		√	√	√	√	√	√	155	X
57	ABC	20	NE Ind. Area		√	√	√	√	√	√	57	X
5[illegible]	ABC	20	Ball Mill Room		√	√	√	√	√	√	59	X
112	ABC	20	E Wall-Ball Mill Mezz.		√	√	√	√	√	√	112	X
113	ABC	20	S. Stairs-Ball Mill Mezz		√	√	√	√	√	√	113	X
190	ABC	20	North Door		√	√	√	√	√	J	176	X
189	ABC	20	West Wall		√	√	X	√	√	√	251	X

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OAK CREEK
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FIRE EQUIPMENT INSPECTION

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
			2nd Floor & Mezz.									
116	ABC	20	NW Mix Tanks		√	√	√	√	√	√	116	X New Bag
117	ABC	20	West Wall - Center		√	√	√	√	√	√	117	X
118	ABC	20	SW Corner		√	√	√	√	√	√	118	X
95	ABC	20	N Center - Hose Sta.		√	√	√	√	√	√	95	X New Bag + Tag
96	M	30	NE Wall - At Stairs		√	√	√	√	√	√	96	X New Bag & Tag
97	ABC	20	Center Aisle Hose Sta.		√	√	√	√	√	√	97	X
98	ABC	20	SE Corner		√	√	√	√	√	√	98	X
99	ABC	20	Outside N Wall-Raycron		√	√	√	√	√	√	99	X
100	ABC	20	Inside SW Corner- " Rm		√	√	√	√	√	√	100	X New Bag
10[illegible]	CO2	15	Ind. Meter Deck - S Side		√	√	X	√	√	√	173	X 8 lbs.
177	ABC	20	3rd Fl. - Meter Deck		√	√	√	√	√	√	281	X
107	ABC	20	Sample Storage Office		√	√	√	√	√	√	107	X
108	ABC	20	Mech. Equip. Rm. - Mezz		√	√	√	√	√	√	108	X
109	CO2	15	" " " "		√	√	X	√	√	√	289	X 8 lbs.
111	ABC	20	Corridor to Roof - "		√	√	√	√	√	√	111	X
270	BC	20	2nd Fl. E. Wall/M&Trade		√	√	√	√	√	√	270	X
			Q.C. & PRODUCTION OFFICE									
92	ABC	20	West Wall - Q.C.		√	√	√	√	√	√	12	X
93	CO2	20	N Wall - South Rm - Q.C		√	√	X	√	√	√	167	X 8 lbs.
101	ABC	20	S Hall - Prod. Offices		√	√	√	√	√	√	101	X
119	ABC	20	Spray - Booth Rm - Q.C.		√	√	√	√	√	√	119	X New Bag & Tag
120	CO2	15	Testing Room - Q.C.		√	√	X	√	√	√	309	X 8 lbs.
185	CO2	15	Factory Service Rm.		√	√	X	√	√	√	151	X 15 lbs.
290	CO2	15	Computer Color Rm - Q.C		√	√	X	√	√	√	181	X 8 lbs.

PPG INDUSTRIES

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Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
			RECEIVING & MAINT.									
74	ABC	20	RM Whse - NW Corner		√	√	√	√	√	√	74	X New Bag
75	CO2	15	" " " "		√	√	X	√	√	√	40	X 10 lbs. New Bag
76	ABC	20	" " North Door		√	√	√	√	√	√	114	X New Bag + Tag
77	ABC	20	Maint. Shop - West Door		√	√	√	√	√	√	77	X New Bag + Tag
78	ABC	20	" " - East Door		√	√	√	√	√	√	62	X
79	ABC	20	RM Whse. - NE Corner		√	√	√	√	√	√	79	X New Bag + Tag
80	ABC	20	" " - North Center		√	√	√	√	√	√	70	X New Bag + Tag
81	ABC	30	" " - West Wall		√	√	√	√	√	√	302	X New Bag
82	ABC	30	" " - " "		√	√	√	√	√	√	69	X
	BC	20	" " - East Wall		√	√	X	√	√	√	252	X
84	BC	30	" " - South Center		√	√	√	√	√	√	4	X New Bag + Tag
85	CO2	15	" " - East RR Dr.		√	√	X	√	√	√	331	X 9 lbs.
86	ABC	20	" " - " " "		√	√	√	√	√	√	86	X
87	ABC	20	" " - SW Corner		√	√	√	√	√	√	87	X New Bag
88	ABC	20	" " - S Wall-Docks		√	√	√	√	√	√	58	X New Bag
89	ABC	20	" " - Office		√	√	√	√	√	√	89	X
90	CO2	15	" " - Battery Rm.		√	√	X	√	√	√	247	X 15 lbs.
91	ABC	20	" " - SE Corner		√	√	√	√	√	√	91	X New Bag + Tag
173	CO2	15	MCC - Maint. Mezz.		√	√	X	√	√	√	135	X 8 lbs.
186	CO2	15	Maint. Shop - N Door		√	√	X	√	√	√	304	X 9 lbs.
308	CO2	15	Resin Storage Cell #5		√	√	X	√	√	√	13	X 9 lbs.
309	CO2	15	Resin Storage Cell #4		√	√	X	√	√	√	293	X 9 lbs.
310	CO2	15	Resin Storage Cell #3		√	√	X	√	√	√	214	X 9 lbs.
311	CO2	15	Resin Storage Cell #2		√	√	X	√	√	√	156	X 8 lbs.
312	CO2	15	Resin Storage Cell #1		√	√	X	√	√	√	312	X 9 lbs.
264	BC	30	Resin Cell #5-Outside Rail		√	√	X	√	√	√	264	X
2	BC	30	" " #3 " "		√	√	X	√	√	√	265	X New Gauge, Tag
274	BC	30	" " #1 " "		√	√	X	√	√	√	274	X
260	BC	30	Receiving Can Crusher		√	√	X	√	√	√	260	X
291	CO^2	15	Main. Mezz. N. Wall		√	√	X	√	√	√	291	X 9 lbs.
340	AX		Main. Mezz. Office		√	√	√	√	√	√	240	X

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LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
			RESIN									
134	ABC	20	Outside - Scrubber		√	√	√	√	√	√	134	X
[redacted]												
194	ABC	20	" - W Trk Load Sta.		√	√	√	√	√	√	53	X New Pin - Seal and Inspec. Tag
135	CO2	15	1st Floor - Battery Rm		√	√	X	√	√	√	9	X 40 lbs.
136	ABC	20	" " - RM Whse -NE		√	√	√	√	√	√	136	X
137	ABC	20	" " - " " -SE		√	√	√	√	√	√	137	X
138	ABC	20	" " - " " -SW		√	√	√	√	√	√	138	X New Bag + Tag
139	ABC	20	" " - " " -NW		√	√	√	√	√	√	139	X
140	M	30	" " - Sol. Rec. Rm		√	√	√	√	√	√	305	X New Bag + Tag
[illegible]	M	30	Mezzanine - " " "		√	√	√	√	√	√	298	X New Bag + Tag
141	M	30	1st Floor - Can Coating		√	√	√	√	√	√	141	X New Bag
142	ABC	20	Mezzanine - " "		√	√	√	√	√	√	142	X
143	M	30	1st Floor - S Stairwell		√	√	√	√	√	√	143	X New Bag + Tag
144	ABC	20	" " - Resin Storage		√	√	√	√	√	√	144	X
145	M	30	" " - Batch Blend		√	√	√	√	√	√	145	X New Bag + Tag
146	M	30	" " - " " SW NE		√	√	√	√	√	√	146	X
147	M	30	" " - N Stairwell		√	√	√	√	√	√	147	X New Bag
148	M	30	" " - North End		√	√	√	√	√	√	160	X New Bag
149	M	30	" " - Environ Blend		√	√	√	√	√	√	149	X New Bag
315	ABC	10	" " - Maint. Room		√	√	X	√	√	√	279	X New Bag + Tag
150	ABC	20	Mezz - North End		√	√	√	√	√	√	5	X New Bag + Tag
151	CO2	15	" - Env. Switch Gear		√	√	X	√	√	√	75	X 85 lbs.
152	CO2	15	" - Transformer Rm.		√	√	X	√	√	√	106	X 85 lbs.
153	CO2	15	" - Resin Switchgear		√	√	X	√	√	√	308	X 85 lbs.
154	ABC	20	" - SE Corner SG Rm.		√	√	√	√	√	√	84	X
155	ABC	20	" - S Stairwell		√	√	√	√	√	√	76	X New Bag + Tag
[illegible]6	CO2	15	" - Lunch Room		√	√	X	√	√	√	310	X 88 lbs. New Bag + Tag
175	ABC	20	" - Env. Batch Blend		√	√	√	√	√	√	257	X
182	ABC	20	" - Env. Batch Blend		√	√	√	√	√	√	182	X
183	ABC	20	" - N End Env. Blend		√	√	√	√	√	√	183	X New Bag
184	ABC	20	" - N Stairwell		√	√	√	√	√	√	184	X

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

Month: May 1981

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
157	M	30	2nd Floor - S Stairwell		√	√	√	√	√	√	129	X
158	BC	20	2nd Floor-Out. Cont. Rm.		√	√	X	√	√	√	280	X New Bag & Tag
159	CO2	15	" " -Inside " "		√	√	X	√	√	√	292	X 40 lbs. New Bag
160	M	30	" " - N Stairwell		√	√	√	√	√	√	12	X
161	ABC	20	" " - North End		√	√	√	√	√	√	161	X
162	ABC	20	3rd Floor- " "		√	√	√	√	√	√	150	X
163	ABC	20	" " - N Stairwell		√	√	√	√	√	√	163	X New Bag
164	ABC	20	3rd Floor-S Stairwell		√	√	√	√	√	√	164	X
314	M	30	3rd Floor-Center		√	√	√	√	√	√	314	New Bag
165	ABC	20	Roof-S Penthouse-S Side		√	√	√	√	√	√	165	X
166	CO2	15	Roof-S " -N Side		√	√	X	√	√	√	288	X 9 lbs
167	CO2	15	Roof-N " -N Side		√	√	X	√	√	√	295	X 9 lbs.
181	CO2	15	Environ Storage		√	√	X	√	√	√	109	X 9 lbs.
253	BC	30	Cationic Stripping-E End		√	√	X	√	√	√	253	X New Bag & Tag
262	BC	30	" " -W End		√	√	X	√	√	√	268	X New Bag & Tag
278	BC	30	" " -Catwalk		√	√	X	√	/	/	278	X
258	ABC	30	Resin Loading Sta. N.W.		√	√	X	√	√	√	258	X
273	ABC	30	Resin Loading Sta. N.E.		√	√	X	√	√	√	273	X
257	ABC	20	Resin Loading Sta. M/Top		√	√	√	√	√	√	68	X New Bag & Tag
259	ABC	20	Resin Loading Sta. E/Top		√	√	√	√	√	√	60	X New Bag & Tag
272	ABC	30	Men's Locker Rm 1st Floor		√	√	X	√	√	√	272	X
			ZONE 6									
122	ABC	20	Fire Pump House		√	√	√	√	√	√	122	X
123	BC	30	Fire Truck		√	√	X	√	√	√	261	X
124	BC	30	" "		√	√	X	√	√	√	262	X
125	CO2	15	" "		√	√	X	√	√	√	318	X 8 lbs.
126	CO2	15	" "		√	√	X	√	√	√	290	X 8 lbs.
248	AFFF	2½ Gal	Fire Truck		√	√	√	√	√	√	248	X
249	AFFF	2½ Gal	Fire Truck		√	√	√	√	√	√	249	X
129	M	30	Utility Center - S Wall		√	√	√	√	√	√	148	X New Bag
130	ABC	20	" " - N Wall		√	√	√	√	√	√	130	X

PPG INDUSTRIES

CAY CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	HANDLE	GAUGE	DENTS	SEAL INTACT	BRACKET	EXTINGUISHER NUMBER	REMARKS
131	ABC	20	Waste Treatment - 1st Fl		✓	✓	✓	✓	✓	✓	131	X
133	ABC	20	" " - Mezz		✓	✓	✓	✓	✓	✓	181	X
179	ABC	20	Tech. Test Bldg.		✓	✓	✓	✓	✓	✓	80	X
180	ABC	20	" " "		✓	✓	✓	✓	✓	✓	180	X
191	ABC	20	Dravo Bldg. - W Wall		✓	✓	✓	✓	✓	✓	162	X
303	ABC	20	" " - N Door		✓	✓	✓	✓	✓	✓	303	X
324	ABC	20	Cat Bunker		✓	✓	✓	✓	✓	✓	324	X
299	M	30	WTC Outside Loading Sta.		✓	✓	✓	✓	✓	✓	299	X
251	ABC	20	Dravo Bldg. East Wall		✓	✓	✓	✓	✓	✓	82	X
			ZONE 7									
168	M	30	Tank Car Rack - East		✓	✓	✓	✓	✓	✓	168	X
169	M	30	" " " - West		✓	✓	✓	✓	✓	✓	169	X
170	M	30	Tank Truck Rack - West		✓	✓	✓	✓	✓	✓	170	X
171	M	30	" " " - East		✓	✓	✓	✓	✓	✓	171	X
172	M	30	" " " - Center		✓	✓	✓	✓	✓	✓	172	X
289	CO2	15	Tank Farm - MCC Bldg.		✓	✓	X	✓	✓	✓	125	X 8lbs.
192	ABC	20	Tank Car Catwalk - W End		✓	✓	✓	✓	✓	✓	92	X
283	ABC	20	" " " - E End		✓	✓	✓	✓	✓	✓	283	X

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FORK TRUCK EXTINGUISHERS

Month: May 1984

TRUCK NUMBER	EXTINGUISHER NUMBER	TYPE	LOCATION	HYDROSTATIC TEST	NOZZLE	GAUGE	DENTS	BRACKET	HANDLE	HOSE		REMARKS
			SHIPPING									
S-1	356	ABC			✓	✓	✓	✓	✓	—		
S-2	317	"			✓	✓	✓	✓	✓	—		
S-3	228	"			✓	✓	✓	✓	✓	—		
S-4	177	"			✓	✓	✓	✓	✓	—		
S-7	214	"			✓	✓	✓	✓	✓	—		New Seal
S-8	343	"			✓	✓	✓	✓	✓	—		
S11	210	"			✓	✓	✓	✓	✓	—		
S12	197	"			✓	✓	✓	✓	✓	—		
S13	345	"			✓	✓	✓	✓	✓	—		
S14	219	"			✓	✓	✓	✓	✓	—		
S15	245	"			✓	✓	✓	✓	✓	—		
S16	344	"			✓	✓	✓	✓	✓	—		
D-5	339	"			✓	✓	✓	✓	✓	—		
D-8	220	"			✓	✓	✓	✓	✓	—		
C-4	247	"			✓	✓	✓	✓	✓	—		New Tag
C-5	234	"			✓	✓	✓	✓	✓	—		New Tag
C-7	246	"			✓	✓	✓	✓	✓	—		
Y-2	223	KIDDE			✓	✓	✓	✓	✓	—		
Y-3	208				✓	✓	✓	✓	✓	—		
Y-4	342				✓	✓	✓	✓	✓	—		
VAN	178				✓	✓	✓	✓	✓	—		New Seal & Tag
			RECEIVING									
A-1		ABC			—	—	—	—	—	—		
B-1	198	"			✓	✓	✓	✓	✓	—		
C-1	347	"			✓	✓	✓	✓	✓	—		
C-2	194	"			✓	✓	✓	✓	✓	—		
C-3	194	"			✓	✓	✓	✓	✓	—		
C-6	227	"			✓	✓	✓	✓	✓	—		
D-2	243	"			✓	✓	✓	✓	✓	—		
D-3	341	"			✓	✓	✓	✓	✓	—		

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FORK TRUCK EXTINGUISHERS

Month: May 1984

TRUCK NUMBER	EXTINGUISHER NUMBER	TYPE	LOCATION	HYDROSTATIC TEST	NOZZLE	GAUGE	DENTS	BRACKET	HANDLE	HOSE		REMARKS
D-4	325	ABC			√	√	√	√	√	—		
Y-1	216				√	√	√	√	√	—		
			PREASSEMBLY									
D-6	237	ABC			√	√	√	√	√	—		
0-5	329	"			√	√	√	√	√	—		
0-9	238	"			√	√	√	√	√	—		
010	325	"			√	√	√	√	√	—		
			SMALL ORDER									
08	218	ABC			√	√	√	√	√	—		New Tag
			MAINTENANCE									
~~A-2~~		~~ABC~~	Get RID OF									
A-3	338	ABC			√	√	√	√	√	—		
D-9			INDUSTRIAL		√	√	√	√	√	—		
D-7	133	ABC			√	√	√	√	√	—		New Tag
03	193	"			√	√	√	√	√	—		
04	234	"			√	√	√	√	√	—		
			RESIN									
A-4		ABC										
0-1	332	"			√	√	√	√	√	—		
0-6	336	"			√	√	√	√	√	—		
0-7	233	"			√	√	√	√	√	—		
011	224	"			√	√	√	√	√	—		
			TRADE									
0-2	320	"			√	√	√	√	√	—		
	85	CO2	WELD CART (MAIN)		√	X	√	√	√	√	85	39 lbs
			YARD HORSE									
	152	CO2			√	X	√	√	√	√	152	38 lbs.

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FIRE HOSE

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	NOZZLE	REEL	CONNECTIONS	BRACKET	REMARKS
			SHIPPING							
1	100	1&1/2	SW Floor Scale - Dock		✓	✓	✓	✓	✓	
2	100	1&1/2	SE Floor Scale - Dock		✓	✓	✓	✓	✓	
3	100	1&1/2	East Aisle - Battery Rm.		✓	✓	✓	✓	✓	
4	100	1&1/2	N Wall - NE Exit		✓	✓	✓	✓	✓	
5	100	1&1/2	N Wall - NW Exit		✓	✓	✓	✓	✓	
6	100	1&1/2	EW Aisle - West of Battery Rm.		✓	✓	✓	✓	✓	
7	100	1&1/2	EW Aisle - " of Tint Area		✓	✓	✓	✓	✓	
8	100	1&1/2	EW Aisle - " " " "		✓	✓	✓	✓	✓	
			ADMIN. & TECH.							
9	75	1&1/2	Hall Outside Sfty. Off.		✓	✓	X	✓	✓	
10	75	1&1/2	NW Cafeteria Door		✓	✓	X	✓	✓	
11	100	1&1/2	1st Floor Mech. Equip. Rm.		✓	✓	X	✓	✓	
12	75	1&1/2	Mech. Equip. Rm. - Roof		✓	✓	X	✓	✓	
13	75	1&1/2	Hall Outside N Acc. Door		✓	✓	X	✓	✓	
14	75	1&1/2	Hall Outside Plnt. Mngr. Of		✓	✓	X	✓	✓	
15	75	1&1/2	Hall Outside Lobby		✓	✓	X	✓	✓	
16	75	1&1/2	Hall outside Rm. 94		✓	✓	X	✓	✓	
17	75	1&1/2	Hall Outside Rm. 96		✓	✓	X	✓	✓	
18	75	1&1/2	Hall Outside Rm. 80		✓	✓	X	✓	✓	
19	75	1&1/2	Hall Outside Rm. 88		✓	✓	X	✓	✓	
20	75	1&1/2	North End Rm. 89		✓	✓	X	✓	✓	
			RECEIVING & MAINT.							
21	100	1&1/2	NW Corner at Exit		✓	✓	✓	✓	✓	
22	100	1&1/2	Center of Bldg. - NS Aisle		✓	✓	✓	✓	✓	
23	100	1&1/2	West Wall - Sm. Order DR.		✓	✓	✓	✓	✓	
24	100	1&1/2	East Wall - Resin Cell 5		✓	✓	✓	✓	✓	

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FIRE HOSE

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	NOZZLE	REEL	CONNECTIONS	BRACKET		REMARKS
26	100	1&1/2	S Side of RR Dock		✓	✓	✓	✓	✓		
27	100	1&1/2	S End at Truck Docks		✓	✓	✓	✓	✓		
28	100	1&1/2	Maint. Tool Room		✓	✓	✓	✓	✓		
			RESIN								
29	100	1&1/2	East Center - RM Whse.		✓	✓	✓	✓	✓		
30	100	1&1/2	West " - " "		✓	✓	✓	✓	✓		
31	100	1&1/2	1st Floor - Can Coating Rm.		✓	✓	✓	✓	✓		
32	100	1&1/2	" " - S Stairwell		✓	✓	✓	✓	✓		
33	100	1&1/2	" " - Resin Storage		✓	✓	✓	✓	✓		
34	100	1&1/2	" " - Batch Blend Rm.		✓	✓	✓	✓	✓		
35	100	1&1/2	" " - N Stairwell		✓	✓	✓	✓	✓		
36	100	1&1/2	" " - North End		✓	✓	✓	✓	✓		
37	100	1&1/2	Mezz. - " "		✓	✓	✓	✓	✓		
38	100	1&1/2	" - N Stairwell		✓	✓	✓	✓	✓		
39	100	1&1/2	" - S "		✓	✓	✓	✓	✓		
40	100	1&1/2	2nd Floor - S "		✓	✓	✓	✓	✓		
41	100	1&1/2	" " - N "		✓	✓	✓	✓	✓		
42	100	1&1/2	" " - North End		✓	✓	✓	✓	✓		
43	100	1&1/2	3rd Floor - " "		✓	✓	✓	✓	✓		
44	100	1&1/2	" " - N Stairwell		✓	✓	✓	✓	✓		
45	100	1&1/2	" " - S "		✓	✓	✓	✓	✓		
46	100	1&1/2	Roof Level - N "		✓	✓	✓	✓	✓		
47	100	1&1/2	" " - S "		✓	✓	✓	✓	✓		
			WASTE TREATMENT								
48	100	1&1/2	South Entrance		✓	✓	✓	✓	✓		

PPG INDUSTRIES

OAK CREEK
COATINGS & RESINS

FIRE EQUIPMENT INSPECTION

FIRE HOSE

Month: May 1984

LOCATION NUMBER	SIZE	TYPE	LOCATION	HYDROSTATIC TEST	HOSE	NOZZLE	REEL	CONNECTIONS	BRACKET	REMARKS
			INDUSTRIAL							
49	100	1&1/2	1st Fl. - NE Ind. Area		✓	✓	✓	✓	✓	
50	100	1&1/2	" " - NW Ind. Area		✓	✓	✓	✓	✓	
51	100	1&1/2	" " - SE Small Order		✓	✓	✓	✓	✓	
52	100	1&1/2	" " - SW Small Order		✓	✓	✓	✓	✓	
53	100	1&1/2	2nd Fl. - NE Exit		✓	✓	✓	✓	✓	
54	100	1&1/2	" " - Raycron Rm. Wall		✓	✓	✓	✓	✓	
55	100	1&1/2	" " - SW Exit		✓	✓	✓	✓	✓	
56	100	1&1/2	" " - West Exit		✓	✓	✓	✓	✓	
			TRADE SALES							
57	100	1&1/2	1st Fl. - East Center		✓	✓	✓	✓	✓	
58	100	1&1/2	2nd Fl. - South Stair Exit		✓	✓	✓	✓	✓	
59	100	1&½	Cationic Stripper Bldg.		✓	✓	✓	✓	✓	
60	100	1&½	New Resin Loading Station		✓	✓	✓	✓	✓	New Cover

48 Hose Reels
12 Accordion Folds
60 Total

DATE May 1984

FIRE HYDRANT INSPECTION

Hydrant Identification	Condition*
H-13	OK
H-12	OK
H-11	OK
H-10	OK
H-9	OK
H-8	OK
H-7	OK
H-6	OK
H-5	OK
H-4	OK
H-3	OK
H-2	OK
H-1	OK

*All caps present, any physical damage, ground subsided indicating underground leak, obstructed, caps hand tight only.

STRETCHER BLANKETS

STRETCHER NO.	STRETCHER LOCATION	INSPECTED BY	DATE	COMMENTS
1	E. Hallway-Safety Office	Danica E.	5-8-1984	
2	Directional Center #2	Danica E.	5-8-1984	
3	Directional Center #3	Danica E.	5-8-1984	
4	Directional Center #4	Danica E.	5-8-1984	
5	Directional Center #5	Danica E.	5-8-1984	
6	Directional Center #6	Danica E.	5-8-1984	
7	Directional Center #7	Danica E.	5-8-1984	
8	2nd Floor - Mixing	Danica E.	5-8-1984	
9	2nd Floor - Trade	Danica E.	5-8-1984	
10	2nd Floor - Resin by Control Room	Danica E.	5-7-1984	
11	Waste Treatment	Danica E.	5-8-1984	
12	Trade Filling	Danica E.	5-8-1984	

Danica Ellis

FIRE ALARM SIGNALS

ZONE 1 (Office Building)

1 - 6	Waterflow--Office Building
1 - 2	Smoke Detectors--Computer Room & Keypunch
1 - 4	Heat Detector--Southeast Corner of Penthouse

MANUAL FIRE ALARMS (Admin. Wing)

1 - 1 - 1	East Wall Computer Room
1 - 1 - 3	North Wall General Accounting Office
1 - 1 - 4	Center West Wall of Operations Planning
1 - 1 - 5	Center of West Corridor--Admin. Wing
1 - 1 - 6	South End of West Corridor--Admin. Wing
1 - 4 - 1	Main East-West Corridor at Mail Room
1 - 4 - 2	Visitor's Lobby

MANUAL FIRE ALARMS (Technical Wing)

1 - 2 - 1	South End of East Corridor--Tech. Wing
1 - 2 - 2	North End of East Corridor--Tech. Wing
1 - 2 - 3	North Door of Applications Lab--Tech. Wing
1 - 2 - 4	Center of West Wall--Applications Lab--Tech. Wing
1 - 2 - 5	North End of Corridor--Tech. Wing
1 - 2 - 6	South End of West Corridor--Tech. Wing

MANUAL FIRE ALARMS (Employees' Services Wing)

1 - 3 - 1	At Ramp to Finished Goods Warehouse
1 - 3 - 2	Service Entrance on East Side of Building
1 - 3 - 3	East Door of Lunch Room
1 - 3 - 4	North Door of Lunch Room
1 - 3 - 5	In East-West Corridor at Double Doors
1 - 3 - 6	At Employee Entrance

FIRE ALARM SIGNALS

ZONE 2 (Finished Goods Whse.)

2 - 2 Waterflow--North Finished Goods Whse. & North Half of 2nd Flr. Exit Corridor
2 - 3 Waterflow--South Finished Goods Whse. & South Half of 2nd Flr. Exit Corridor & Shipping Offices
2 - 4 Waterflow--Finished Goods Racks

MANUAL FIRE ALARMS (Finished Goods Whse.)

2 - 1 - 2 Northeast Exit Door on North Wall
2 - 1 - 3 North Center Door on North Wall
2 - 1 - 4 Northwest Exit Door on West Wall
2 - 1 - 5 Southwest Exit Door on West Wall
2 - 1 - 6 West End of Shipping Doors
2 - 2 - 1 East End of Shipping Doors
2 - 2 - 2 Stairwell Outside of 1st Flr. Shipping Offices

FIRE ALARM SIGNALS

ZONE 3 (Paint Manufacturing)

3 - 1 Waterflow -- Industrial Sales 2nd Floor & Meter Deck, Area Under Mezzanine on 1st Floor Including Ball Mill Room & Scale Pit Foam Unit
3 - 2 Waterflow -- Industrial Sales 1st Floor & Area Above Mezzanine
3 - 3 Waterflow -- Trade Sales 2nd Floor Including Production Offices, Quality Control & Preassembly; Area Under Mezzanine on First Floor; 3rd Floor Area Including Meter Deck
3 - 4 Waterflow -- Trade Sales 1st Floor, Area Above Mezzanine, Raycron Room & Preassembly
3 - 5 Heat Detector -- Trade Sales Motor Control Center
3 - 6 Heat Detector — Industrial Sale Motor Control Center

MANUAL FIRE ALARMS (Paint Manufacturing)

3 - 1 - 1 Trade Sales 1st Floor -- Southeast Corner at Mezzanine Stairs
3 - 1 - 2 Trade Sales 1st Floor -- Center of South Wall
3 - 1 - 3 Trade Sales 1st Floor -- West End of South Wall
3 - 1 - 4 Industrial Sales 1st Floor -- In Northwest Stairwell
3 - 1 - 5 Industrial Sales 1st Floor -- At West Door in North Wall
3 - 1 - 6 Industrial Sales 1st Floor -- At East Door in North Wall
3 - 2 - 1 Ball Mill Room -- North Wall
3 - 2 - 2 Industrial Sales 2nd Floor -- Center of West Wall
3 - 2 - 3 Industrial Sales 2nd Floor -- At Steps in Northeast Corner
3 - 2 - 4 Industrial Sales 2nd Floor -- At Door in Center of East Wall
3 - 2 - 5 Trade Sales 2nd Floor -- At Door in East Wall of Preassembly
3 - 2 - 6 Trade Sales 2nd Floor -- At Door in East Wall by Pallet Lift
3 - 3 - 1 Trade Sales 3rd Floor -- At Exit to Roof Across From Elevator
3 - 3 - 2 Trade Sales 3rd Floor -- At Main Stairwell
3 - 3 - 3 Trade Sales 2nd Floor -- At Door on North End of West Wall
3 - 3 - 4 Trade Sales 2nd Floor -- On North Wall at Main Stairwell
3 - 3 - 5 Trade Sales 2nd Floor -- At Door on South End of West Wall
3 - 3 - 6 Trade Sales 2nd Floor -- On South Wall at Stairs to Mezzanine
3 - 4 - 1 Trade Sales 2nd Floor -- At Door on South End of East Wall
3 - 4 - 2 Trade Sales 2nd Floor -- At Door in Center of East Wall
3 - 4 - 3 2nd Floor Production Offices -- Northwest Corner in Corridor
3 - 4 - 4 2nd Floor Quality Control Lab -- On North Wall
3 - 4 - 5 2nd Floor Quality Control Lab -- On South Wall
3 - 4 - 6 2nd Floor Production Offices -- North Center in Corridor
3 - 5 - 1 2nd Floor Production Offices -- Northeast Corner in Corridor
3 - 5 - 2 2nd Floor Production Offices -- Southeast Corner in Corridor

FIRE ALARM SIGNALS

ZONE 4 (Raw Material Warehouse, Maintenance & Resin Cells)

4 - 1 Waterflow--Southeast Quarter of Raw Material Warehouse
4 - 2 Waterflow--Southwest Quarter of Raw Material Warehouse
4 - 3 Waterflow--North Half of Raw Material Warehouse & Entire Maintenance Dept.
4 - 4 Waterflow--Raw Material Racks
4 - 5 Resin Cells and West Half of Covered Pipe Bridge

MANUAL FIRE ALARMS (Raw Material Warehouse, Maintenance & Resin Cells)

4 - 1 - 1 Maintenance 1st Floor--North Stairwell
4 - 1 - 2 Maintenance 1st Floor--North Wall Between Overhead & Man Doors
4 - 1 - 3 Raw Material Warehouse--East End of North Wall
4 - 1 - 4 Raw Material Warehouse--West End of North Wall
4 - 1 - 5 Raw Material Warehouse--West End of South Wall (At Depalletizers)
4 - 1 - 6 Raw Material Warehouse--In Truckers' Lounge
4 - 2 - 1 Latex Storage--On South Wall
4 - 2 - 2 At Railroad Door--South Side
4 - 2 - 3 At Railroad Door--North Side
4 - 2 - 4 Resin Cell #5
4 - 2 - 5 Resin Cell #4
4 - 2 - 6 Resin Cell #3
4 - 3 - 1 Resin Cell #2
4 - 3 - 2 Resin Cell #1

FIRE ALARM SIGNALS

ZONE 5 (Resin Plant)

5 - 1	Waterflow--Deluge covering pipe bridge, cold room and Therminal Expansion Tank on Roof
5 - 2	Waterflow--Can Coat, Solvent Recovery, Intermediate Storage, Resin Blending, Environ Blending, Environ Storage and East Half of Covered Pipe Bridge
5 - 3	Waterflow--Resin Manufacturing and Penthouses
5 - 4	Waterflow--Resin Warehouse, Locker Room, Lunch Room, Battery Charging Room, Preassembly, Vaso Storage and H&V Room
5 - 5	Waterflow--Resin Warehouse Storage Racks
5 - 6	Heat Detector--Motor Control Center and Control Room
5 - 1 - 1	Waterflow--Cationic Stripper Room
5 - 1 - 2	Waterflow--Cationic Loading Station

MANUAL FIRE ALARMS (Resin Plant)

5 - 1 - 3	1st Floor Resin Blending--In Southwest Corner-B.T. Room
5 - 1 - 4	1st Floor Manufacturing--At Center Stairwell
5 - 1 - 5	1st Floor Manufacturing--At South Stairwell
5 - 1 - 6	1st Floor Intermediate Storage--On West Wall
5 - 1 - 7	Cationic Loading Station--NW Exit
5 - 1 - 8	Cationic Loading Station--SE Exit
5 - 2 - 1	1st Floor Solvent Recovery--On West Wall
5 - 2 - 2	1st Floor Can Coat--On West Wall
5 - 2 - 3	Resin Warehouse--At North Overhead Door
5 - 2 - 4	Resin Warehouse--At East Exit Door
5 - 2 - 5	Mezzanine--At Center Stairwell
5 - 2 - 6	Mezzanine--At South Stairwell
5 - 3 - 1	2nd Floor Manufacturing--At Center Stairwell
5 - 3 - 2	2nd Floor Manufacturing--At South Stairwell
5 - 3 - 3	3rd Floor Manufacturing--At Center Stairwell
5 - 3 - 4	3rd Floor Manufacturing--At South Stairwell
5 - 3 - 5	1st Floor Environ Blending--At West Exit
5 - 3 - 6	1st Floor Environ Storage--At West Exit
5 - 4 - 1	1st Floor Manufacturing--At North Exit
5 - 4 - 2	Mezzanine--At North Exit
5 - 4 - 3	2nd Floor Manufacturing--At North Exit
5 - 4 - 4	3rd Floor Manufacturing--At North Exit
5 - 5 - 2	Cationic Stripper Room, West
5 - 5 - 3	Cationic Stripper Room, East
5 - 5 - 4	1st Floor Resin Blending--In Northwest Corner-B.T. Room

FIRE ALARM SIGNALS

ZONE 6 (Utility Center and Waste Treatment Center)

6 - 1	Waterflow--Therminol Building Deluge
6 - 1 - 2	Heat Detector and Pull Box--Catalyst Bunker
6 - 3	Waterflow--Waste Treatment Building
6 - 4	Heat Detectors--Utilities Center
6 - 2	Waterflow--Pumphouse & Fire Truck Garage
6 - 6 - 2	Manual Alarm--Utilities Center At South Exit
6 - 4 - 2	Manual Alarm--Waste Treatment At South Exit

ZONE 7 (Tank Farm)

7 - 1	Heat Detector--Control Building
7 - 2 - 1	Manual Alarm--On South Wall of Control Building

ATTACHMENT G-4

GENERAL EVACUATION PROCEDURES

ak Creek Standard Procedure #0109 Effective Date 1/31/81

itle GENERAL EVACUATION PROCEDURES Revision #3 to SOP dated 6/30/81

or B.W. WALKER Page 1 of 4 Pages

SUBJECT:

General procedures are needed for orderly evacuation in the event of a real or potentially hazardous situation.

DISTRIBUTION:

All Employees (including new employees and temporary employees)

APPROVALS:

J.J. BONINO

B.W. WALKER

PROCEDURE:

1. A bell or horn signal will be sounded to indicate the need for a plant evacuation. The signal will be a one digit number. The number will tell the fire zone that is to be evacuated.

EXAMPLE: Honk Honk Honk (pause) Honk Honk Honk
(The three honks will repeat several times)

This is the alarm for Zone #3.

EXAMPLE: Honk (pause) Honk (pause) Honk
(The one honk will repeat)

This is the alarm for Zone #1

EMERGENCY ZONES AND DIRECTIONAL CENTERS

Zone No.	Zone Location	Emergency Dir. Center
1	Administration Bldg.	East Door
2	Finished Goods	North Truck Door
3	Paint Production	North Truck Door - Ind.
4	Receiving Warehouse	North Truck Door
5	Resin	West Center Door
6	Utility Center/Waste Treatment	South Door-Utility Center
7	Tank Farm	MCC Elec. Building

When you hear your fire zone signal, you will immediately shut off any flowing liquids, and exit the building through the nearest exit. You will close all fire doors you go past on your way out, and gather in one group at the assigned area as follows:

PROCEDURE: (continued)

ZONE 1 - OFFICE BUILDING

If this signal is heard, all the people in the Office Building will leave the building. They will either gather in a group in the center of the parking lot, or in a group in the middle of the grassy area south of the Office building, depending on which door they exit.

ZONE 2, 3, and 4 - FINISHED GOODS, PAINT MANUFACTURE, RAW MATERIAL, MAINTENANCE

If any one of these signals is heard, all the people in all three of these areas will leave the building. They will either gather in a group at the area behind the water storage tank, or at the truck scale, depending on whether they exit to the north or south of the buildings.

ZONE 5 and 7 - RESIN PLANT AND TANK FARM

If either of these signals is heard, all the people in these zones will leave. They will gather east of the service read or just outside the maintenance shop area depending on which exit they use.

ZONE 6 - OUTER BUILDINGS, UTILITY CENTER, WASTE TREATMENT

People in this zone will leave and gather just outside the Maintenance Shop Area.

2. People in other zones that have not been signalled will shut off any equipment, turn off any flowing liquids, and stand by inside your building at an area designated by your Warden. (Supervisor's Office)

3. Members of the Maintenance Department are to evacuate on any signal and gather at the Utility Center for further instructions.

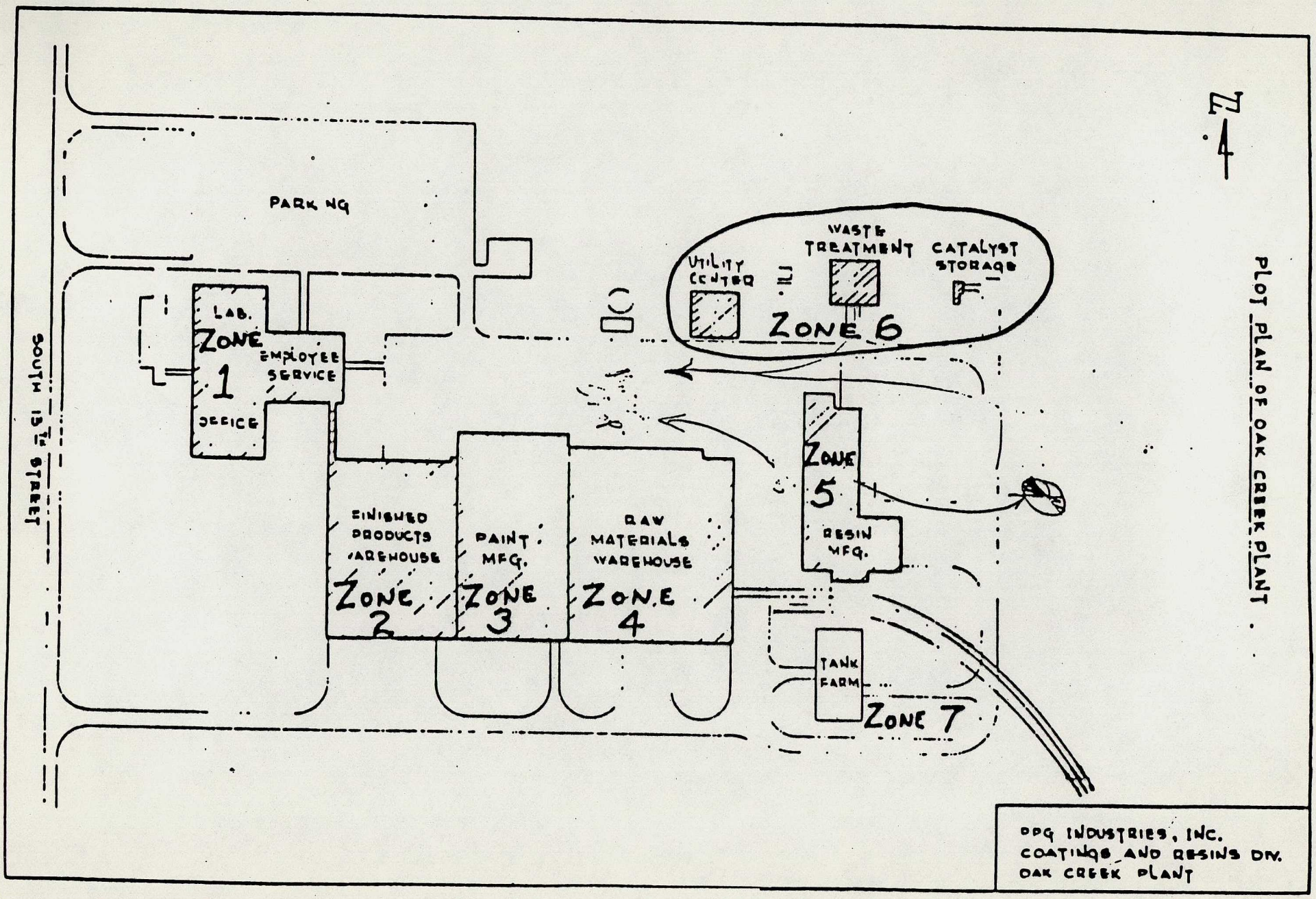
4. At the All Clear Signal, everyone may resume your work. The All Clear Signal will be given by the Safety Director or his designated representative, and will be announced over the Public Address System.

PROCEDURE: (continued)

6. All tractor trailer drivers must report to their tractors and wait for instructions from PPG or Fire Department personnel. Tractor trailer rigs must not be moved, except when so instructed, due to interference with emergency vehicles.

7. Visitors, contractors and servicemen will evacuate along with PPG personnel in the area where they are at the time of the alarm.

8. News media teams will not be allowed into the plant. They must be escorted to the parking lot or administrative building by you or the police, and their questions must be referred to the plant manager or personnel director.



Z-4

PLOT PLAN OF OAK CREEK PLANT

Date: 7/10/85
Revision No.: 0
G

TABLE G-1-1

HAZARDOUS WASTE STREAMS AND HAZARD CODES

WASTE	HAZARD
Paint Plant Dirty Solvent	Ignitable, Toxic
Resin Plant Dirty Solvent	Ignitable, Toxic
Solvent Recovery Still Sludge	Ignitable, Toxic
Water-Base Paint Waste	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Solvent-Base Paint Waste	Ignitable, EP Toxicity (Chromium and Lead)
Resin Waste	Ignitable, Reactive
Cationic Distillate-MIBK	Ignitable
Paint Plant Filter Cartridges and Bags	EP Toxicity (Chromium Lead, Mercury)
Resin Plant Filter Cartridges and Bags	N.A.
Paint Plant Baghouse Dust	EP Toxicity (Chromium, Lead, Mercury)
Resin Plant Baghouse Dust	N.A.
Paint Plant Trade Washwater	EP Toxicity (Mercury)
Paint Plant Industrial Washwater	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Paint Plant Caustic Cleaning Water	Ignitable, Corrosive, EP Toxicity (Chromium, Lead, Mercury)
Resin Plant Caustic Cleaning Water	Ignitable, Corrosive

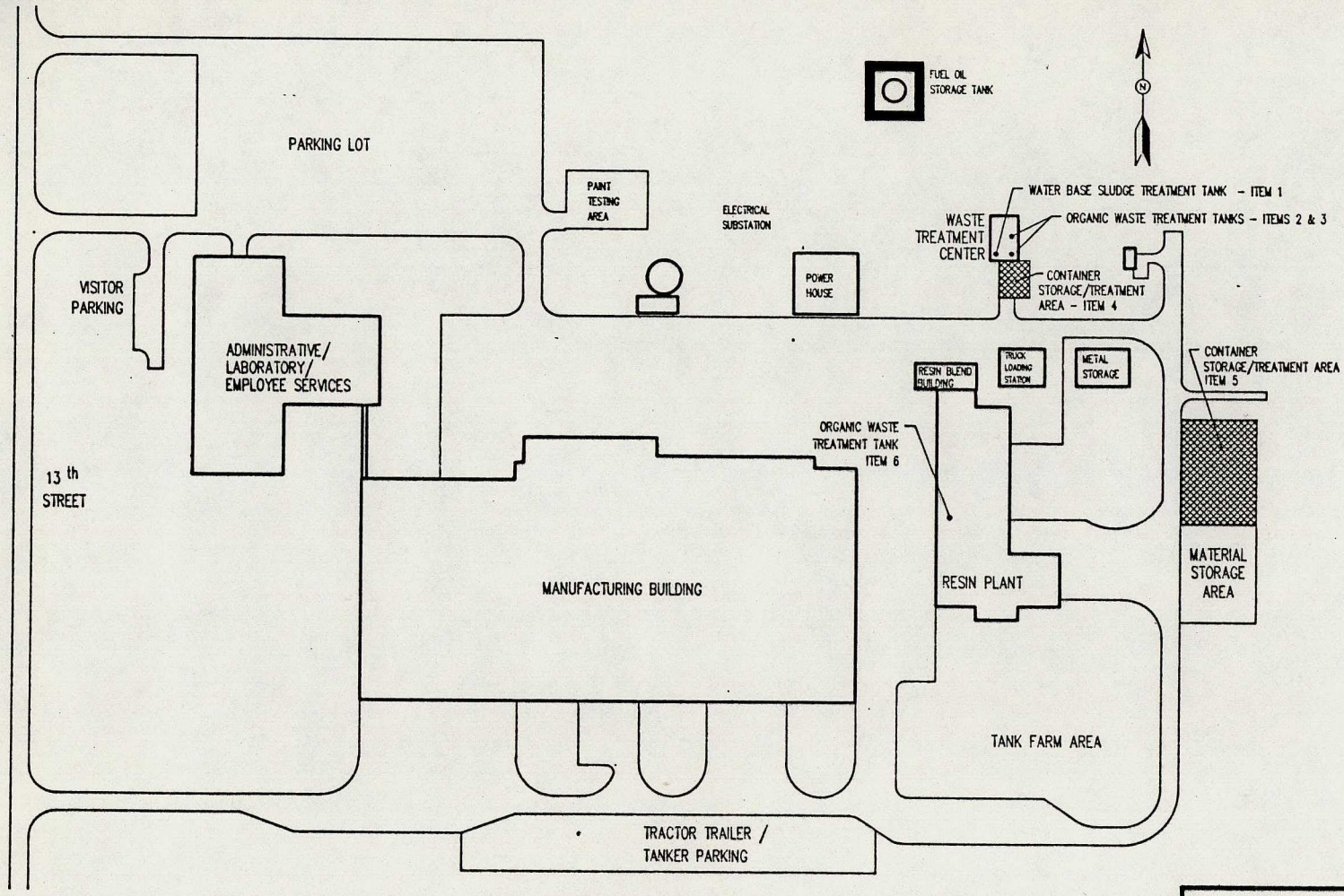
TABLE G-1-1
(Continued)

WASTE	HAZARD
Resin Plant Wastewaters	Ignitable
Cationic Wastewater	Ignitable
Wastewater Treatment Supernatant	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Wastewater Treatment Sludges	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Paint Plant Caustic Sludge	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Floor Sweepings	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Floor Cleaning Solution	Ignitable, Toxic, EP Toxicity (Chromium, Lead, Mercury)
Discarded or Spilled Raw Materials	Toxic, Reactive, Ignitable, Corrosive
Offsite Wastes	Ignitable, EP Toxicity (Cadmium, Chromium, Lead, Mercury)
Off-Specification Products	Ignitable, EP Toxicity (Chromium, Lead, Mercury)
Laboratory Paint and Resin Waste	Ignitable, Corrosive, Reactive, EP Toxicity (Arsenic, Barium, Cadmium, Chromium, Lead, Mercury)

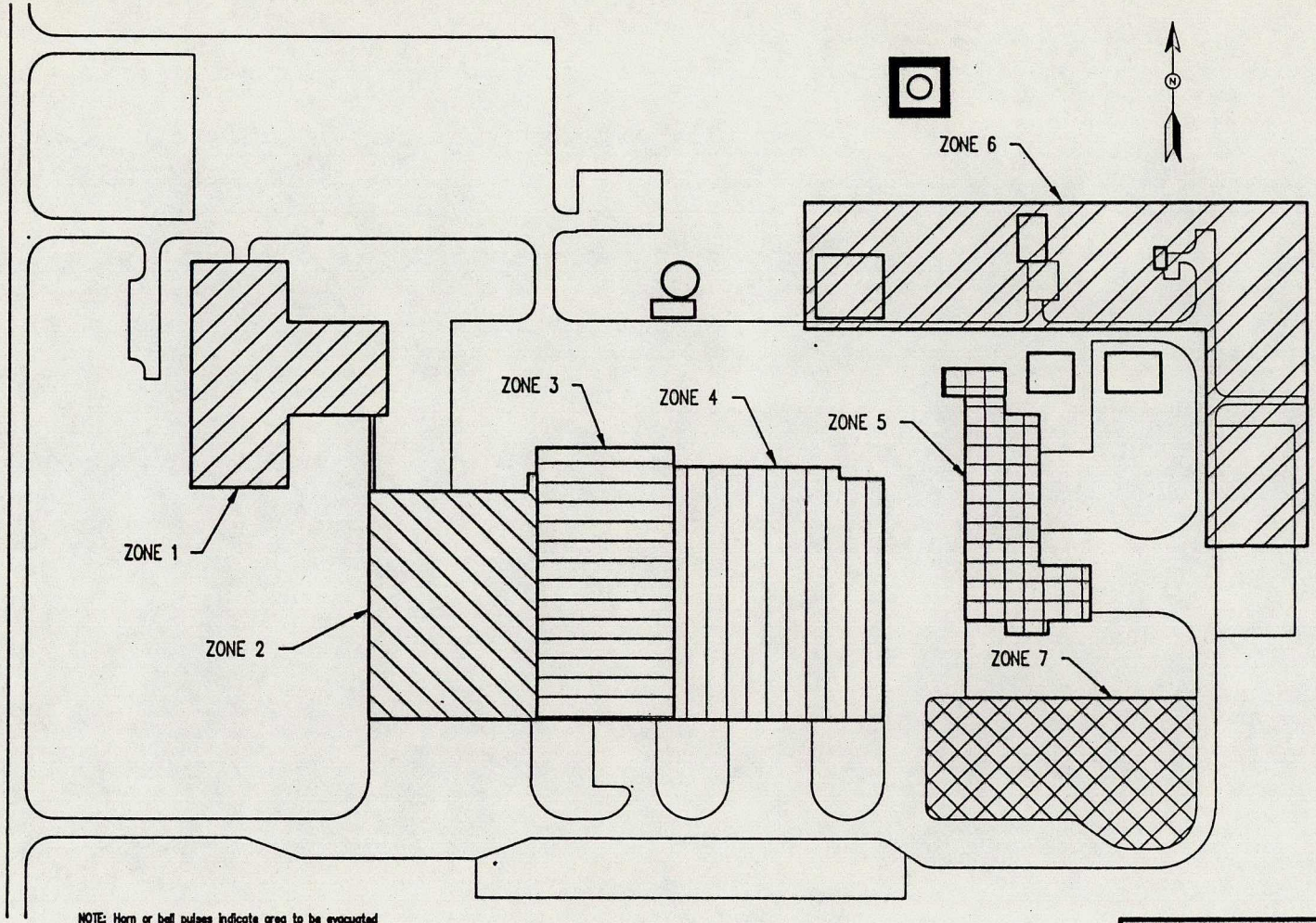
TABLE G-2-1

EMERGENCY COORDINATORS

Position	Name	Office Extension	Home Address	Home Phone Number
Plant Manager	N. Marvich	220	110 Bunker Hill Dr. Brookfield, WI 53005	414/786-9269
Safety Manager	B.W. Walker	230	8035 S. Wayland Dr. Oak Creek, WI 53154	414/764-1145
Plant Engineer	C.E. Harrison	300	S67W13882 Hardwicke Place Hales Corners, WI 53130	414/425-5770
Environmental Engineer	D.F. Scudder	302	S71W17274 Pleasant View Dr. Muskego, WI 53150	414/679-3181
Paint Production Manager	R.J. Bayer	240	11941 W. Howard Avenue Greenfield, WI 53228	414/321-3667
Resin Production Manager	J.M. Gezo	210	5000 S. 66th Street Greenfield WI 53220	414/282-4825
Operations Planning Manager	J.E. Burns	280	14485 W. Wilbur Dr. New Berlin, WI 53151	414/421-6375
Employee Relations Manager	J.A. Johnson	221	4475 S. Church Dr. New Berlin, WI 53151	414/786-0375



HAZARDOUS WASTE MANAGEMENT AREAS	FIGURE NO. G-1-1
ERM-Midwest	



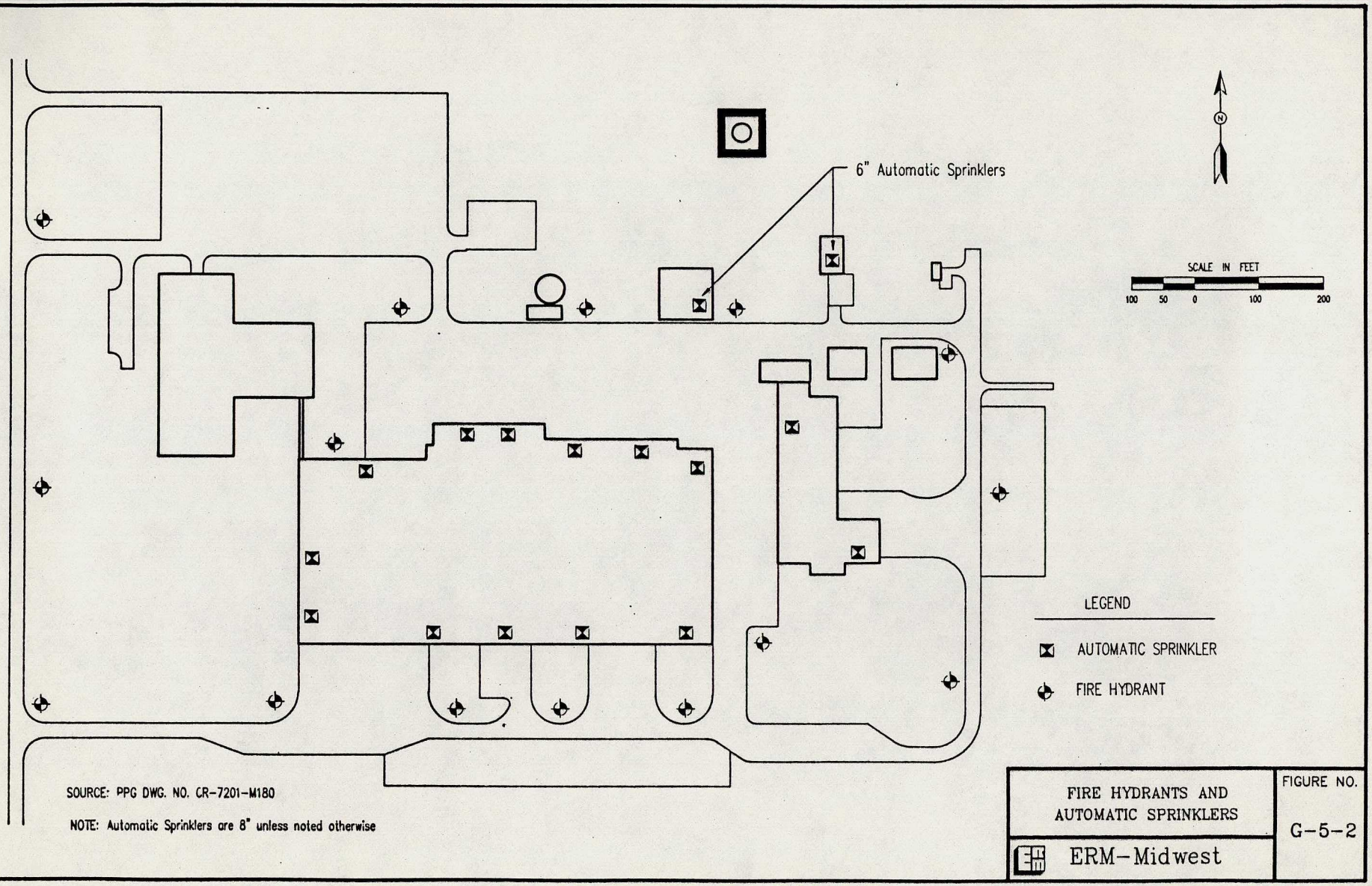
NOTE: Horn or bell pulses indicate area to be evacuated

SOURCE: SOP 0109, effective 1/31/81

SCALE IN FEET

100 50 0 100 200

ALARM ZONES	FIGURE NO. G-5-1
ERM-Midwest	

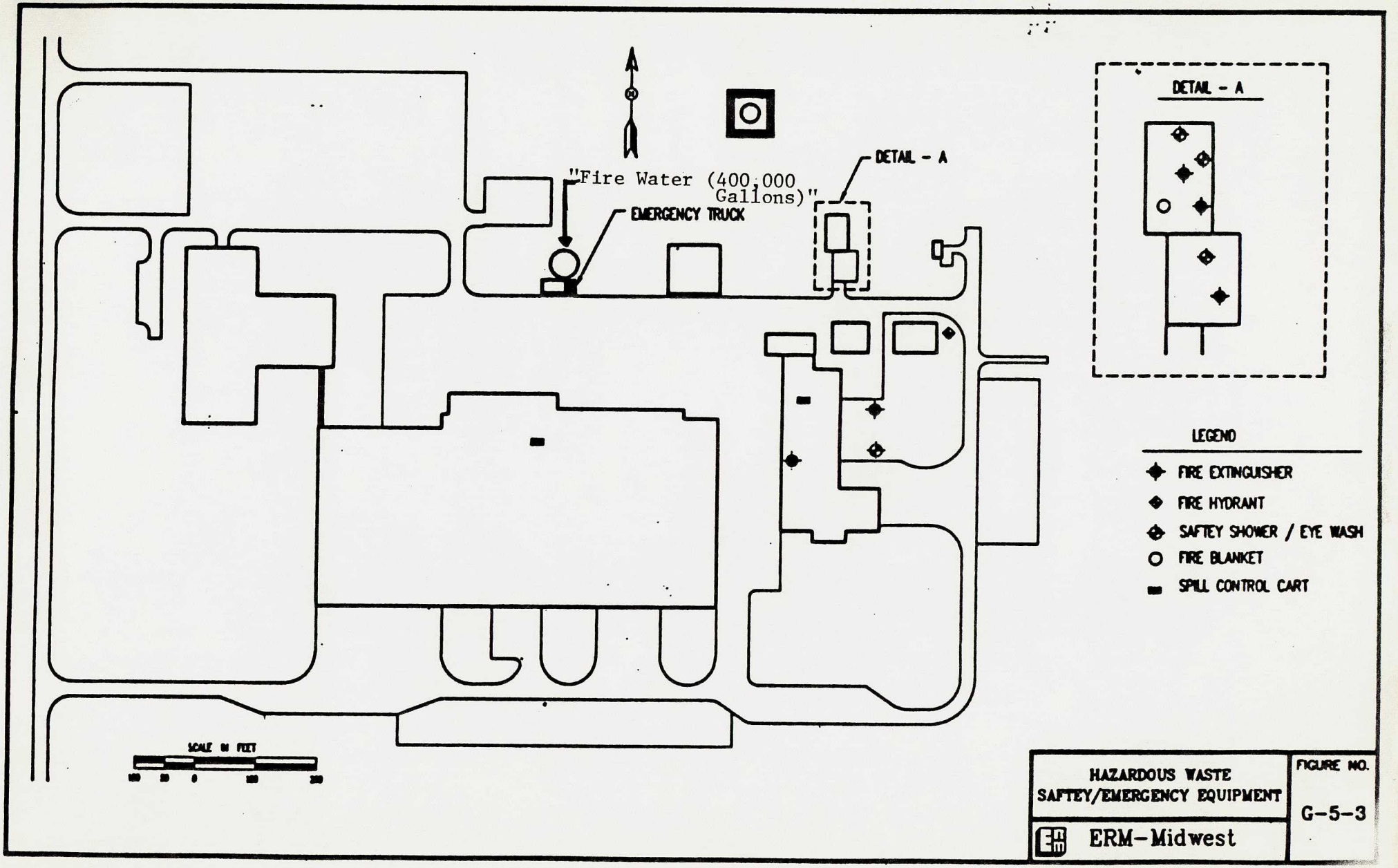


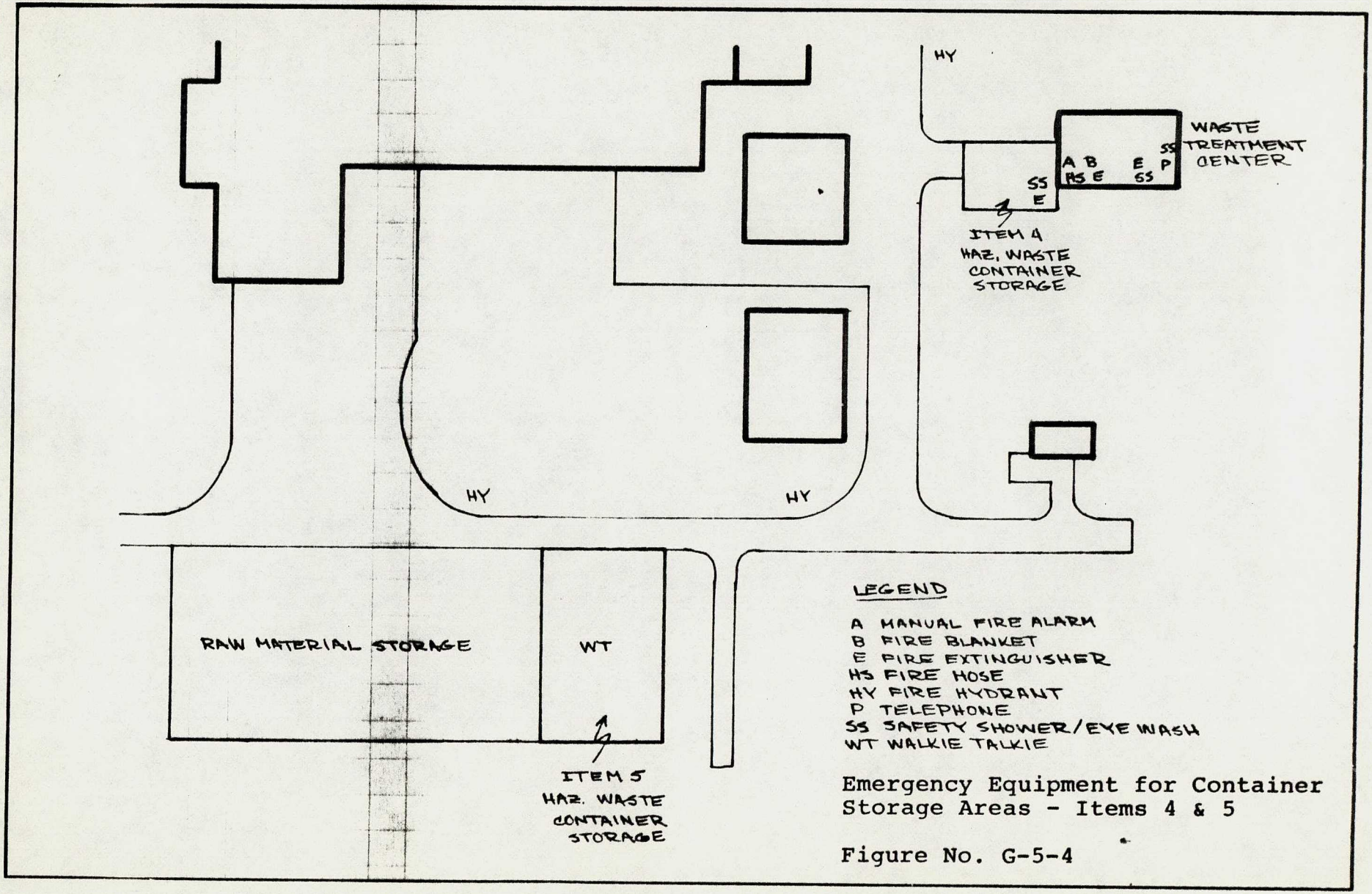
FIRE HYDRANTS AND AUTOMATIC SPRINKLERS

ERM-Midwest

FIGURE NO.

G-5-2


"Fire Water (400,000 Gallons)"
EMERGENCY TRUCK
DETAIL - A
DETAIL - A
LEGEND
FIRE EXTINGUISHER
FIRE HYDRANT
SAFTEY SHOWER / EYE WASH
FIRE BLANKET
SPILL CONTROL CART
SCALE IN FEET
HAZARDOUS WASTE
SAFTEY/EMERGENCY EQUIPMENT
ERM-Midwest
FIGURE NO.
G-5-3



Emergency Equipment for Container Storage Areas - Items 4 & 5

Figure No. G-5-4

ATTACHMENT G-5

EMERGENCY EQUIPMENT AVAILABLE IN OUTDOOR CONTAINER STORAGE AREAS (ITEMS 4 AND 5)

(SUBJECT TO CHANGE)

EMERGENCY EQUIPMENT FOR OUTDOOR HAZARDOUS WASTE CONTAINER STORAGE AREAS

Equipment	Location
Fire Hydrants	Three in immediate vicinities
Fire Extinguishers	Two 20-lb. Type ABC inside Waste Treatment Center (WTC). One 30-lb. Type ABC outside WTC.
Fire Hose	WTC south entrance
Fire Blanket	WTC south entrance
Fire Alarm	WTC south entrance (manual)
Safety Shower/Eye Wash	Two inside WTC One outside WTC
Communication Equipment	Telephone inside WTC Walkie-talkies for personnel when working in storage area on east side of plant.

H-1 Outline of Training Program (40 CFR 264.16)

H-1a Job Titles and Duties (40 CFR 264.16 (d)(1) and 264.16 (d)(2))

There are five individuals directly involved in the hazardous waste management program at the PPG Oak Creek Plant. These individuals hold the following positions: Environmental Engineer (1), Environmental Specialist (1), and Waste Treatment Center Attendants (3). The current duties, responsibilities, and qualifications of these positions are included in Attachment H-1.

H-1b Training Content, Frequency, and Technique (40 CFR 264.16(c) and 264.(d)(3))

General Plant Training

The manufacturing of coatings and resins at the Oak Creek plant involves the use of many raw materials. These raw materials typically contain many hazardous compounds and chemicals in higher concentrations than do the wastes. Therefore, many raw materials present a greater degree of hazard to plant and personal safety than do the wastes when improperly handled. For this reason, all employees of the

- Documentation of the type and amount of introductory and continuing formal hazardous waste training conducted at the facility, specifically providing the title of the training, the date, the instructor, a description of the training course, and the names of employees in attendance.

- An up-to-date hazardous waste training record of each individual involved in hazardous waste management. The record includes the job title, job description, the individual's name, qualifications, experience, and training provided.

- Records that document all completed hazardous waste training.

The core of materials utilized in the hazardous waste training program are maintained in a central file and updated routinely by the Environmental Engineer.

Training records for incumbent hazardous waste management personnel are included in Attachment H-2. These records will be kept until closure of the facility for current employees and for three years from the date of the individual employee's termination for former employees.

Date: 12/10/85
Revision No.: 1
H

ATTACHMENT H-1

PPG INDUSTRIES

HAZARDOUS WASTE TSD JOBS

OAK CREEK, WI

ENVIRONMENTAL COORDINATOR	Daniel F. Scudder
ENVIRONMENTAL SPECIALIST	Deborah L. Kordus
WASTE TREATMENT CENTER ATTENDANT	Felix Santiago
	Eugene Jones
	Gary Wieselman

Source: PPG Industries
RCRA Training Plan
Oak Creek Facilities

Attachment II-1
(continued)

PPG INDUSTRIES

EXEMPT POSITION DESCRIPTION

JOB NO.
EEO CATEGORY PROF
PRIMARY FUNCTION
SURVEY CODES

Date Written: October 3, 1985

Written by: D. Scudder & A. Fleck

Approved by: C. Harrison
J. Johnson

Incumbent:

Position: Environmental Specialist

Reports to: Environmental Engineer

Department: Engineering & Maintenance

Group: Coatings & Resins

Location: Oak Creek

ACCOUNTABILITY OBJECTIVE:

This position assists the Plant Environmental Engineer in all aspects of environmental affairs management and cost control and is accountable for insuring that plant waste control, treatment, and sampling activities as they pertain to air, water, and hazardous waste streams are accomplished in a timely and efficient manner.

DIMENSIONS:

Personnel: Must successfully relate to all levels of plant management and hourly personnel, outside contractors, and regulatory personnel.

OPERATING BUDGET:

Waste Treatment Operating Supplies	$45,000.00
Water and Waste Sampling	$25,000.00
Waste Equipment Cleaning	$15,000.00

NATURE AND SCOPE:

The position reports to the Environmental Engineer.

The incumbent is responsible for the efficient operation and maintenance of the Plant Wastewater Treatment Center, as well as other plant air, water, and hazardous waste emission control systems. In addition, this position will be responsible for activities related to plant pollution abatement such as scheduling and inspecting waste shipments, environmental sampling, projects related to Environmental Control, and other duties as assigned by the Environmental Engineer. In this capacity, the incumbent must successfully communicate and relate with all levels of plant personnel and outside contractors.

NATURE AND SCOPE (cont.):

The major challenges confronting this position include the efficient and continuous operation of the plant Waste Treatment Center to insure that major production problems due to the waste treatment process are avoided, and achieving compliance with present and future regulations impacting sanitary sewer, surface water, groundwater, and air discharges. This activity includes the preparation and submittal of periodic regulatory reports to the appropriate agencies.

Also, achieving timely shipment of plant wastes to off-site disposal facilities is an important responsibility of this position. Maintaining the appropriate contacts with disposal contractors is vital to the plant's efficient operation. Responsibility for annual inspection visits to disposal sites used by the plant will be shared with the Environmental Engineer.

Responsibility for in-plant movement and storage of containerized waste will present opportunities for the incumbent to implement waste management techniques to achieve cost reduction goals. Inventory tracking of hazardous waste containers, to comply with regulations, will also be an important function of the Environmental Specialist position.

Environmental sampling is necessary for both regulatory compliance and to minimize the plant's liability. The Environmental Specialist is charged with implementing a comprehensive program that will meet regulatory requirements and provide additional information which will benefit the plant.

This individual will assist the Environmental Engineer with the training of plant personnel to achieve regulatory compliance and to facilitate an understanding of Environmental regulations and PPG polices and procedures. Communication with plant personnel on a regular basis necessary part of the job.

This individual has the freedom to act within budget limits, and to make final decisions regarding waste treatment, sampling and analysis, and waste shipment and scheduling. Creativity is greatly needed in this position in order to handle the frequently unique problems that occur.

The incumbent must possess formal, technical training in Environmental subjects, or other technical training directly applicable to employment as an Environmental Specialist. The individual must remain current in the environmental field and increase their technical expertise through training seminars, technical literature, and formal schooling if necessary.

PRINCIPAL ACCOUNTABILITIES:

.) Manages the waste treatment process timely and efficiently.
.) Schedule, inspect, and verify waste shipments on a timely basis.
.) Handle projects related to maintenance, cleaning, and improvement of pollution control systems in accordance with various directives.
.) Performs sampling and analyses to meet regulatory requirements.
.) Assist in training plant personnel to achieve regulatory compliance.

SECTION H

PERSONNEL TRAINING

The information contained in this section outlines the personnel training program for PPG Oak Creek Plant personnel involved with hazardous waste management as required in 40 CFR 270.14(b)(12) and 264.16. This plan is applicable to all personnel with assigned hazardous waste storage, treatment, handling, inventorying, inspection, and emergency responsibilities.

H-1 Outline of Training Program (40 CFR 264.16)

H-1a Job Titles and Duties (40 CFR 264.16 (d)(1) and 264.16 (d)(2))

There are five individuals directly involved in the hazardous waste management program at the PPG Oak Creek Plant. These individuals hold the following positions: Environmental Engineer (1), Environmental Specialist (1), and Waste Treatment Center Attendants (3). The current duties, responsibilities, and qualifications of these positions are included in Attachment H-1.

H-1b Training Content, Frequency, and Technique (40 CFR 264.16(c) and 264.(d)(3))

General Plant Training

The manufacturing of coatings and resins at the Oak Creek plant involves the use of many raw materials. These raw materials typically contain many hazardous compounds and chemicals in higher concentrations than do the wastes. Therefore, many raw materials present a greater degree of hazard to plant and personal safety than do the wastes when improperly handled. For this reason, all employees of the

Oak Creek Plant who are expected to have contact with potentially hazardous materials are trained in their handling. A Safety and Health Index System rates each material for health, flammability, and reactivity and assigns corresponding numbers from 0 to 4, based on the degree of hazard of the material in those areas. In addition to the degree of hazard, a personal protection index has been designed to indicate the manner in which the material may be hazardous, and what equipment the employee should use to protect himself. These four indices (health, flammability, reactivity, and personal protection) have been incorporated onto a label which is attached to each raw material when it is received.

In addition to the hazard identification system, the Oak Creek Plant has established Standard Operating Procedures and Safe Operating Practices (SOP's) for various departments in the plant. These SOP's address themselves to locations of emergency equipment, evacuation signals and routes, turning in fire alarms, and various other emergency and material handling procedures. Each department has a copy of these SOP's for their use. Each new employee is given an Employee Handbook, which lists general safety rules applicable to the entire plant.

SOP's are reviewed, modified, and updated on an "as-needed" basis. When the SOP's are modified, all changes are reviewed with the affected employees to ensure employee understanding of the changes. New SOP's are also written whenever needed due to process or raw material changes. Monthly safety meetings are held in each department in order to reinforce existing and explain new procedures.

The pertinent plans and procedures related to hazardous wastes, covered in the general plant SOP's and monthly safety meetings, are the following:

1. General Evacuation Procedures

2. Spill Control

3. Hazardous Work Permit

4. Pressurized Drum Handling

5. Respiratory Protection Program

6. Hazardous Waste Filling/Labeling

Hazardous Waste Training

A formal hazardous waste training program has been instituted at the PPG Oak Creek plant. It is summarized in Figure H-1-1. Under this program, training is provided to those individuals expected to have hazardous waste management responsibilities or duties. Because many of the raw materials handled at the Oak Creek plant are as hazardous or more hazardous than the wastes, all employees are expected to observe proper material handling procedures and personnel safety rules. Maintenance personnel who have specific hazardous waste handling responsibilities receive additional training in labeling, spill reporting, inspection, and documentation.

Training records on current employees are held until closure. The training records on former employees are held for three years from the date of termination.

All specific hazardous waste training efforts are directed by the Environmental Engineer. If appropriate, outside training instructors will be brought to the PPG Oak Creek plant to supplement in-house hazardous waste training. More details on the specific types of hazardous waste training provided are shown in Figure H-1-1.

H-1c RCRA Training Director (40 CFR 264.16 (a)(2))

The Environmental Engineer is the RCRA Training Director and has overall responsibility for ensuring that the hazardous waste training program is fully implemented and operates continuously. Specific responsibilities include:

- Overseeing training program.
- Developing SOP's.
- Participating in the design of training material.
- Assisting in training logistics (e.g., scheduling).
- Conducting annual review of training program.
- Maintaining training records.

The Environmental Engineer named in Attachment H-1 has been trained in hazardous waste procedures and has working knowledge of RCRA requirements.

H-1d Relevance of Training to Job Position (40 CFR 264.16 (a)(1))

The Environmental Engineer is responsible for ensuring that hazardous waste management procedures, including contingency plan implementation, are known to all waste handling personnel. The hazardous waste training program is structured to provide training to personnel in responsibilities and activities that are relevant to their positions within the plant.

H-1e Training for Emergency Response (40 CFR 264.16 (a)(3))

The Environmental Engineer is thoroughly familiar with the Safe Operating Procedures established at the Oak Creek Plant that are related to hazardous waste management. Emergency procedures make up the majority of procedures related to hazardous waste management, and therefore employees are trained in both normal operating procedures and emergency response procedures.

Training elements addressing nonroutine and emergency situations include:

- Key procedures for waste feed cutoff systems.

- Operation shutdown and power failure procedures.

- Emergency communication procedures and alarm systems.

- Responses to fires or explosions.

- Response to hazardous material spills.

- Evacuation Procedures.

- Procedures for locating, using, inspecting, repairing, and replacing facility emergency and monitoring equipment.

H-2 Implementation of RCRA Training Program (40 CFR 264.16 (d)(4) and 264.16 (b))

The Environmental Engineer and all current waste-handling personnel have been fully trained at the time of this submittal. All new personnel, or newly assigned personnel, will complete this training program within six months of assignment to the hazardous waste storage facility or within six months of their date of employment, whichever is later.

In May of each year, a review of the training program is conducted by the Environmental Engineer. Comments are solicited from facility personnel involved with hazardous waste management. The Environmental Engineer at this facility has responsibility for documenting his findings in a Annual Report on hazardous waste training. The report should summarize hazardous waste training activities reviewed, review procedures used, participants, findings of review, and plan of action for the coming year.

The Environmental Engineer at the facility is responsible for maintaining all hazardous waste training records. These records consist of completed versions of the form shown as Figure H-2-1 and include:

- Documentation of the type and amount of introductory and continuing formal hazardous waste training conducted at the facility, specifically providing the title of the training, the date, the instructor, a description of the training course, and the names of employees in attendance.

- An up-to-date hazardous waste training record of each individual involved in hazardous waste management. The record includes the job title, job description, the individual's name, qualifications, experience, and training provided.

- Records that document all completed hazardous waste training.

The core of materials utilized in the hazardous waste training program are maintained in a central file and updated routinely by the Environmental Engineer.

Training records for incumbent hazardous waste management personnel are included in Attachment H-2. These records will be kept until closure of the facility for current employees and for three years from the date of the individual employee's termination for former employees.

In addition to the above formal hazardous waste training program, there will be occasional notifications of changes and/or bulletins which will summarize and reinforce past training.

FIGURE H-1-1

SUMMARY OF TRAINING FOR HAZARDOUS WASTE FACILITY PERSONNEL

Title	Training to be Provided	Frequency
Operating Personnel who routinely handle hazardous waste	• Emergency notification procedures. • Emergency response procedures. • Use of emergency equipment. • Characteristics of hazardous wastes onsite. • Spill clean up procedures (basic). • Proper labeling of hazardous wastes. • Use of safety equipment. • Container types for hazardous waste storage. • Special hazardous waste handling procedures and precautions. • Explosion, fire, and spill hazards.	Annual
Supervisory Personnel	• Overview Federal and State Hazardous Waste Regulations regarding regulated wastes and hazardous characteristics	Annually or As Needed

FIGURE H-1-1

SUMMARY OF TRAINING
FOR HAZARDOUS WASTE FACILITY PERSONNEL
(Continued)

Title	Training to be Provided	Frequency
	• Location of hazardous waste storage and handling areas. • Procedures for inspecting containers, handling, and storage areas. • Procedures for using emergency and monitoring equipment. • Shutdown of operations. • Spill clean up procedures. • Basic concepts of chemistry of hazardous materials and works. • Basic review of recordkeeping procedures.	

FIGURE H-2-1

HAZARDOUS WASTE MANAGEMENT
PERSONNEL TRAINING DATA

Date: 7/10/85
Revision No.: 0
H

Name: _____

Title: _____

Hazardous Waste Management Responsibility Area:

_____

Qualifications:

Job Responsibilities:

RCRA Related Training Record:

Title and Description of Training	Date Completed

Instructions: This form must be prepared, updated, and filed by the facility Training Director for each employee with a designated hazardous waste management responsibility. A minimum, personel in charge of waste analysis, manifest system, inspection, training, and emergency coordination must be covered; as well as operating personnel who routinely handle hazardous wastes.

ATTACHMENT H-1

HAZARDOUS WASTE MANAGEMENT
POSITION DESCRIPTIONS

Date: 12/10/85
Revision No.: 1
H

ATTACHMENT H-1

PPG INDUSTRIES

HAZARDOUS WASTE TSD JOBS

OAK CREEK, WI

ENVIRONMENTAL COORDINATOR	Daniel F. Scudder
ENVIRONMENTAL SPECIALIST	Deborah L. Kordus
WASTE TREATMENT CENTER ATTENDANT	Felix Santiago
	Eugene Jones
	Gary Wieselman

Source: PPG Industries
RCRA Training Plan
Oak Creek Facilities

Attachment H-1
(continued)

PPG INDUSTRIES

EXEMPT POSITION DESCRIPTION

JOB NO.
EEO CATEGORY PROF
PRIMARY FUNCTION
SURVEY CODES

Date Written: October 3, 1985

Written by: D. Scudder & A. Fleck

Approved by: C. Harrison
J. Johnson

Incumbent:

Position: Environmental Specialist

Reports to: Environmental Engineer

Department: Engineering & Maintenance

Group: Coatings & Resins

Location: Oak Creek

ACCOUNTABILITY OBJECTIVE:

This position assists the Plant Environmental Engineer in all aspects of environmental affairs management and cost control and is accountable for insuring that plant waste control, treatment, and sampling activities as they pertain to air, water, and hazardous waste streams are accomplished in a timely and efficient manner.

DIMENSIONS:

Personnel: Must successfully relate to all levels of plant management and hourly personnel, outside contractors, and regulatory personnel.

OPERATING BUDGET:

Waste Treatment Operating Supplies	$45,000.00
Water and Waste Sampling	$25,000.00
Waste Equipment Cleaning	$15,000.00

NATURE AND SCOPE:

The position reports to the Environmental Engineer.

The incumbent is responsible for the efficient operation and maintenance of the Plant Wastewater Treatment Center, as well as other plant air, water, and hazardous waste emission control systems. In addition, this position will be responsible for activities related to plant pollution abatement such as scheduling and inspecting waste shipments, environmental sampling, projects related to Environmental Control, and other duties as assigned by the Environmental Engineer. In this capacity, the incumbent must successfully communicate and relate with all levels of plant personnel and outside contractors.

NATURE AND SCOPE (cont.):

e major challenges confronting this position include the efficient and continuous operation of the plant Waste Treatment Center to insure that major production problems due to the waste treatment process are avoided, and achieving compliance with present and future regulations impacting sanitary sewer, surface water, groundwater, and air discharges. This activity includes the preparation and submittal of periodic regulatory reports to the appropriate agencies.

Also, achieving timely shipment of plant wastes to off-site disposal facilities is an important responsibility of this position. Maintaining the appropriate contacts with disposal contractors is vital to the plant's efficient operation. Responsibility for annual inspection visits to disposal sites used by the plant will be shared with the Environmental Engineer.

Responsibility for in-plant movement and storage of containerized waste will present opportunities for the incumbent to implement waste management techniques to achieve cost reduction goals. Inventory tracking of hazardous waste containers, to comply with regulations, will also be an important function of the Environmental Specialist position.

Environmental sampling is necessary for both regulatory compliance and to minimize the plant's liability. The Environmental Specialist is charged with implementing a comprehensive program that will meet regulatory requirements and provide additional information which will benefit the plant.

This individual will assist the Environmental Engineer with the training of plant personnel to achieve regulatory compliance and to facilitate an understanding of Environmental regulations and PPG polices and procedures. Communication with plant personnel on a regular basis necessary part of the job.

This individual has the freedom to act within budget limits, and to make final decisions regarding waste treatment, sampling and analysis, and waste shipment and scheduling. Creativity is greatly needed in this position in order to handle the frequently unique problems that occur.

The incumbent must possess formal, technical training in Environmental subjects, or other technical training directly applicable to employment as an Environmental Specialist. The individual must remain current in the environmental field and increase their technical expertise through training seminars, technical literature, and formal schooling if necessary.

PRINCIPAL ACCOUNTABILITIES:

.) Manages the waste treatment process timely and efficiently.
.) Schedule, inspect, and verify waste shipments on a timely basis.
.) Handle projects related to maintenance, cleaning, and improvement of pollution control systems in accordance with various directives.
.) Performs sampling and analyses to meet regulatory requirements.
.) Assist in training plant personnel to achieve regulatory compliance.

2. **Oversee and control all plant water discharge and air emission sources for compliance.**

3. **Interface with PPG management and government officials to optimize corporate and divisional goals.**

4. **Insure a good plant image and obtain self development in environmental affairs on a continuing basis.**

5.) written SOP's for 1st line people. ie: water ... Product ... etc

Source: PPG Industries
RCRA Training Plan
Oak Creek Facilities
December 10, 1984

FORM 3782

PPG INDUSTRIES

Replaced 10-1-76
Job Description

ATTACHMENT H-1
(Continued)

JOB DESCRIPTION

JOB TITLE		DATE
WASTE TREATMENT CENTER ATTENDANT		November 24, 1980
LOCATION	**DEPARTMENT**	**JOB NUMBER**
Oak Creek	Maintenance	

Coordinates pumpimg of waste (aqueous and organic) to the waste treatment center and temporary storage of drum waste for subsequent pumping. Segregates waste into proper holding tanks. Monitoring of holding tank levels is required to prevent overflow.

Takes samples from aqueous tanks for testing. Performs trial treatments on samples, according to instructions, to determine the aqueous treatment procedure that will produce the best sludge. Adds and mixes the required chemicals to treat the tank according to prescribed guidelines. Tests and adjusts the separated waste water and then pumps to the decanter. Samples of the remaining sludge are taken, recorded and Quality Control or supervisory approval obtained prior to disposal.

Loads aqueous and organic sludge tank wagons. Retains a labeled sample of each load and maintains a log book for all waste treatment operations.

Monitors operation of decanter system and ensures that it does not overflow.

Monitors level of impounding basin and pumps to decanter. Monitors TOD analyzer readings of water in the interceptor basin, checks the TOD analyzer for proper operation and notifies supervision of unusual conditions.

Good housekeeping is required in all aspects of this job.

Performs other assigned duties related to the above title.

PREPARED BY Kay W. Crapp 11/24/80 (Date)

APPROVED BY [signature] 11/24/80 (Date)

(Date)

[signature] (Date)

Source: PPG Industries
RCRA Training Plan
Oak Creek Facilities
December 10, 1984

Stevenson, Jordan & Harrison, Inc.

ATTACHMENT H-2

TRAINING RECORDS

MONTH July 85

SUPERVISOR Mel Weeden DEPARTMENT Maintenance SHIFT day 11:15 AM. + 12:30 PM

Give A Brief Statement Of What Was Discussed Film on loading and unloading railcar and rail tankers and trailer wagons and trailer tankers, the safe way working on and around the above. discussed the operation of the new dock lok. at shipping + receiving dock's and reviews the electrical lock out procedures.

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

Bob Howard mentioned that safety showers where blocked out at third floor Resin, safety Dept should investigate if this is true. he said he has told Ron Tack twice about this –

EMPLOYEES PRESENT

Gregory Jackey	Joe Petersen	Henry Dionne
Jim Leidolf	[illegible]	David Ritter
[illegible]	Ed Harris	
Rick Welesko	Jim Longo	
Jose A. Trejo.	12:30. PM	
Gerald Zylka	Robert Howard Jr.	
Don Colburn	Don Fehrer	
Felix Santiago Jr	J. DeRosen	
[illegible]	Carl Eckert	
[illegible]	R. Higgins	
[illegible]	M. Farmer	
Robert Ropsky	Kathy Knapp	
[illegible]	Dave DuFrenier	
[illegible]	Matt Rube	
[illegible]	Marie Melotek	

RETURN TO SAFETY DEPARTMENT

Supervisor's Signature Mel Weeden

FOR

MONTH July 1985

PERVISOR Mel Weedon DEPARTMENT Maintenance SHIFT 2nd

Give A Brief Statement Of What Was Discussed Film on Loading and unloading Rail car and Rail tankers and Trailer wagon and Trailer tanker and the information on Dok lok operation at Receiving + shipping area. and the Electrical lock out procedures.

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

if it was permissible to put pulled fuses in to starter panel box, the reply that it wasn't. they have to be left on the outside preferrably. marking them together and write on it where it should be returned to.

EMPLOYEES PRESENT

Mike Poeschel
Paul Kishel
N.J. SCHMIDT
Gene Jones
Lin Tom
[illegible]
[illegible] Robertson
Pat Ewert

RETURN TO SAFETY DEPARTMENT

Supervisor's Signature Mel Weedon

FOR

MONTH June 1985 6/19/85

SUPERVISOR D.F. Scudder DEPARTMENT Maintenance SHIFT 1ST

Give A Brief Statement Of What Was Discussed Resource Conservation and Recovery Act, hazardous Material Safety, hazardous WASTE Characteristics

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

EMPLOYEES PRESENT

Paul Seilander		
Robert J. Ropicky		
Tom Schumacher		
Greg Jeskey		
Michael Stanke		
Dan Fehrer		
Felix Santiago Jr		
John J Rubyne		
Peter D Boster		
David H Richter		
Jose A. Trejo		
John Bostwick		
James F Lindolf		

RETURN TO SAFETY DEPARTMENT

Supervisor's Signature D F Scudder

PPG INDUSTRIES

INTER-OFFICE CORRESPONDENCE

Date:

From:

To: Files

Location: Oak Creek

Subject: RCRA Training

Name: Gary F. Wieselman

SUBJECT	MATERIALS USED	DATE	TRAINING ACKNOWLEDGED BY
Definition of Hazardous Wastes (Characteristics)	RCRA parts 261.20, 261.21, 261.22, 261.23, 261.24 261.30, 261.31, 261.32, 261.33	6/17/85	Gary F Wieselman
TSD Standards	RCRA Part 264	6/18/85	Gary F Wieselman
Spill Control Spill regulations	Contingency Plan SPCC Plan State & Federal Regs	7/9/85	Gary F Wieselman

SAFETY MEETING

The Safety Department will be conducting the monthly departmental safety meeting and will cover RESPIRATORY PROTECTION TRAINING.

Place: Maintenance Department Break Room

Date: Wednesday, March 27, 1985

7:00 A.M.

- ✓ Wilke
- ✓ Sellars
- ✓ Labensky
- ✓ Kriederman
- ✓ Pehrer
- ✓ DuGrenier
- ✓ Eckert
- ✓ Carter
- ✓ Docter
- ✓ Howard
- ✓ Moczynski
- ✓ Sanchez
- ✓ Starrett
- Jeskey NO-IN SCHOOL N.J.
- ✓ Slamka

11:00 A.M.

- ✓ Zylka
- ✓ Ropicky
- ✓ Maciejczak
- Schumacher SICK
- ✓ Higgins
- Rodriguez NO IN SCHOOL N.J.
- ✓ Thomson
- ✓ Kube
- ✓ Santiago
- ✓ Colburn
- ✓ Trejo
- ✓ Leidolf
- ✓ Nowack
- ✓ Kostuck
- ✓ Alicea
- ✓ KNAPP

3:00 P.M.

- ✓ Robertson
- ✓ Jones
- ✓ Poeschel
- ✓ Melotik
- ✓ DeRosier
- Schmidt HOSP.
- ✓ Rein

SAFETY MEETING REPORT
FOR
MONTH MARCH

PERVISOR H. DIONNE DEPARTMENT MAINT SHIFT 1st

Give A Brief Statement Of What Was Discussed RESPIRATORY PROTECTION (SOP 0141) & REVIEW OF FACIAL HAIR POLICY. GIVEN BY TOM TERSINE, ALSO FILM SHOWN, "THE BREATH YOU SAVE".

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

EMPLOYEES PRESENT

[illegible]	David [illegible]	
Gerald Zylka		
[illegible]		
Felix Santiago G		
Kathy Knapp		
Sandy [illegible]		
Don Coll[illegible]		
Robert Nowack		
[illegible]		
[illegible]		
Paul [illegible]		
Joe A. Trejo.		
Matt [illegible]		
[illegible]		
John Thomson		

FOR

MONTH MARCH

SUPERVISOR H. DIONNE DEPARTMENT MAINT SHIFT 2nd

Give A Brief Statement Of What Was Discussed RESPIRATORY PROTECTION (SCP 0141) & REVIEW OF FAICIAL HAIR POLICY. GIVEN BY TOM TERSINE, ALSO FILM SHOWN, "THE BREATH YOU SAVE".

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

EMPLOYEES PRESENT

Tim Rein		
Marie Melotik		
Arnold Robertson		
J. DeRosin		
[illegible]		
Gene Jones		
Mike Paeschel		

RETURN TO SAFETY DEPARTMENT Supervisor's Signature

SAFETY MEETING REPORT
FOR ,
MONTH April 85

SUPERVISOR Sadler DEPARTMENT WTC Attend. SHIFT 1st 2

Give A Brief Statement Of What Was Discussed proper waste stream labeling procedure; proper handling of empty IPDF drums; other non-HW issues, (i.e. incident procedures, spill protocol, DOT info)
(Meeting time approx 2 hrs.)

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

1) production people not following pumping SOP
2) " " " " labeling SOP

EMPLOYEES PRESENT

(Name Illegible)		
(Signature)		

RETURN TO SAFETY DEPARTMENT

MONTH August / 84

SUPERVISOR Scudder DEPARTMENT MAINT SHIFT 3-2

Give A Brief Statement Of What Was Discussed Environmental Concerns and Problems at the Oak Creek Plant.

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action. What action have you taken or do you recommend being taken?

1) Storm sewer manhole @ receiving Dept. is not water tig
2) Neutralization system @ utility center may not have enough capacity.

EMPLOYEES PRESENT

Jane Jones
Lane Melolik
James F. Leidolf
Mike Roeschel
Ronald J. Roberton

RETURN TO SAFETY DEPARTMENT Supervisor's Signature [signature]

1/26/

Met w/ Felix Santiago, Eugene Jones } WTC Attendants
Mel Weeden (Supervisor 2nd shift)

discussed this S.O.P. and:

1.) use of spill carts
2.) pumping policy @ WTC
3.) Cationic problems
4.) moving Gene to a split shift
5.) Drum movement policy & problems

Oak Creek Standard Procedure #0620 Effective Date January 16, 1984

Title: Handling of Acrylate Drum Materials In Resin Plant

Revision #1 to SOP dated 5/3/83

Author GREG VALCHAR

Dan Sandberg

OBJECTIVE:

Special handling procedures must be established for acrylates because of the severe health and reactivity hazards associated with these materials. At PPG, the increased use of acrylates in Raycron products, and urethane-acrylate resins, has led to an increase in occupational incidents involving these materials.

The objective of this Standard Operating Procedure is to establish a set of safe guidelines to follow when handling these types of materials.

Distribution:

All SOP Manual Holders

APPROVALS:

J. J. BONINO

C. E. HARRISON

L. LADAGE

B. W. WALKER

PROCEDURE:

A. Storage

Most acrylates are only slightly flammable, due to their low vapor pressures. However, all of the acrylates are very reactive materials and must be handled and stored with utmost caution. Rapid and/or uncontrollable polymerization may occur if acrylates are exposed to heat, sunlight, catalysts, oxidizers, acids, caustics, and ultraviolet radiation.

Acrylate monomers should be stored inside, in a cool dry area away from any chemicals that may react with them.

B. Handling

Drums of acrylate monomers must be handled with extreme caution to avoid accidental spills and/or puncturing of the drums. The use of the following combination of personal

PROCEDURE: (continued)

protective equipment is required when handling acrylic or acrylate monomers:

1. Chemical safety goggles must be worn at all times when handling liquids from acrylate drums.

2. Long sleeve shirt with the sleeves rolled down and buttoned, is required.

3. Rubber or neoprene gloves must be worn and a yellow rubberized disposable slicker suit must be worn. Impervious rubber boots must be worn. The rubber overshoes worn on the safety shoes is acceptable.

4. A NOISH/MSHA approved respirator for organic vapors (yellow canister) must be worn when the safety and health label calls for one.

5. Personal hygiene and neatness must be maintained to avoid accidental contamination.

6. Acrylate monomers must be used in a well ventilated area.

C. Accidental Contamination or Spill

Any spill of an acrylate monomer should be cleaned up immediately to lessen the extent of contamination, in the air and around the work area.

Small spills should be mopped up immediately. Larger spills should be absorbed into oil-dry or sand, and then shoveled into an empty, clean drum. In any case, the personal protective equipment required must be worn.

Any contaminated piece of clothing should be removed immediately. Leather items, gloves, belts, and work shoes that have been contaminated must be thrown out and replaced. After removing contaminated clothing, a shower with soap and water will remove excess from skin surface.

PHYSIOLOGICAL EFFECTS OF ACRYLATES:

Most acrylates are hazardous to the human body. They are severe eye irritants, severe skin irritants, and severe respiratory irritants. They are toxic to the skin and to the digestive system. [redacted]

PROCEDURE: (continued)

[redacted]

Some acrylates are sensitizers, meaning, upon repeated exposures, lesser amounts will be needed to cause ill effects in an individual.

PPG CODES FOR ACRYLATE MONOMERS:

All acrylate monomers start with the letter K in the PPG CHAMP Code system. The first letter K stands for reactant. The second letter for acrylate monomers in the CHAMP Code system is M. This stands for monomer. Acrylate monomers are very reactive. The Safety and Health Index numbers assigned to each code indicate the severity of the hazard. The Personal Protective Equipment letter indicates the type of protective equipment that must be worn. When a particular code is assigned an "X" letter, the protective equipment required is as described in this SOP.

Meeting Due
Date 12/14/83
Time 7a, 11a, 3p

SAFETY MEETING REPORT
for
MONTH of December

SUPERVISOR Dan Scudder
DEPT. Maint SHIFT 1, 2, 3
DATE of MEETING 12/14/83

Give A Brief Statement Of What Was Discussed Environmental concerns at the Oak Creek Plant: Inspections and Spill Control C+R Division changes, Quality + Environmental surveys

EMPLOYEES PRESENT

	See Attached	

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action.
What action have you taken or do you recommend being taken?

General Questions and Comments
None requiring Action

Reviewed by Executive Safety Committee _____ Date _____ Supervisor's Signature

Dan Scudder 12/8/83

SAFETY MEETING Topic - RCRA Training

DATE: WEDNESDAY, DECEMBER 14, 1983

7:00 A.M.

Wilke
Sellars
Labensky
Colburn
Carter
Docter
DeRosier
Sanchez
DuGrenier
Trejo
Kriederman
Starrett
Thomson
Howard
Hebein
Eckert

11:15 A.M.

Jeskey
Zylka
Yakich
Alicea
Higgins
Mocarynski
Dettlaff
Rodriguez
Nowack
Eichler
Santiago
Melotik
Poeschel
Schumacher
Dosch

3:00 P.M.

Jones, E.
Jones, J.
Rein
Maciejczak
Robertson
Leidolf
Kroes
Kube
Gabelbauer

COATINGS & RESINS
ENGINEERING DEPARTMENT

SUBJECT Maint. Safety meeting

PAGE
PROJECT NO.
FLOW SHEET NO.
AREA NO.
ITEM NO.
DRAWING NO.

BY [illegible] DATE BY DATE

Environmental - RCRA Training

I Introduction

A) TALK seem more Environmental
- directly & Indirectly related to safety "health & env"

B) To insure we Comply w/RCRA - Daily Inspections
- Look @ . . . . .
- Basic ~~Areas~~ items to look @ { · Alarms · Equip, ie Tanks & piping · Containment structure
- discuss basins
- purpose is to i.d. & stop probs before serious
- my people i.d. probs that exist
- mech may spot probs that could develop ie - disch. piping

C) Discuss spills
- Torrence spill
- Form.
- CCS
- Acetate
  - developments to spill
  - new SOP

D) "Releases to Env." - Spill defn:
∴ includes Atmosphere
1LB ≈ 1/8 ~~[illegible]~~ th Gal

FORM 9059

Ideas:

Spill control
- review recent spills
- Spill Cart
- Employee obligations
- TC analyzer

What is a hazardous waste?
- defn: A) Fed
  b) State

Odors
- State law
- Non Attain. Area
- Hywite situation

Holiday safety
- drinking & driving
- winter driving
- home projects

Disconnecting discharge piping on a Storage tank

1) Whenever discharge piping is removed from a pump on any storage tank, the pump should be locked out, and the discharge piping valve shut or blanked off. A check valve should not be relied upon to prevent back flow of product on the ground.

2) Two locks and a "Do Not Operate" tag should be placed on the motor starter. One lock, a Maintenance supervisor's lock; one lock, a Receiving supervisor's lock and the tag noting when and why and by whom the pump is locked out.

3) When the pump needs to be operated (i.e., to fill product into drums or tankwagon) both parties--Maintenance and Receiving must check the job and temporarily remove their lock. Locks should be re-installed at the end of each shift unless the discharge piping has been reconnected.

4) The filling line to that tank should be locked out with a long-eared kamlok, using a Receiving Department supervisor's lock. This would act as a early warning to supervision that a tank is about to be filled. This locked cap would also stay in place until the discharge piping is reconnected.

5) This procedure is in addition to the electrical lockout SOP, which requires a Maintenance mechanic to also add a lock if working on that equipment.

Due
[illegible]. 20, 1982
Time 7 a.m.
11:15 a.m.
3:00 p.m.

SAFETY MEETING REPORT
for
MONTH of October

SUPERVISOR Paul Siebenaller
DEPT. Maintenance SHIFT 1st, 2nd, 3rd
DATE of MEETING October 20, 1982

Give A Brief Statement Of What Was Discussed Reviewed the departmental accident cases using 1978 thru 1982 statistics; also reviewed the various types of accident cases for this period. Safety locks (2 per employee) were passed out and the lockout procedure reviewed. Dan Scudder talked on the disposal of various types of hazardous materials and procedure for spill control.

EMPLOYEES PRESENT

Wilke	Labensky	Nowack	Maciejczak
Sellars	Santiago	Jeskey	Robertson
Hebein, Jon	Zylka, Gerald	Yakich	Schultz
Alicea	Sanchez	Higgins	Kube
Mateju	Dettlaff	Hebein, John	
Trejo	Zylka, Jerome	Platt	
Colburn	Docter	Dosch	
Schumacher	Eckert	Eichler	
Noczynski	Thomson	Kriederman	
Starrett	Howard	DuGrenier	
Rodriguez	Jones	Rein	

List any comments, suggestions or criticisms that came up during the meeting that you feel may require investigation or corrective action.
What action have you taken or do you recommend being taken?

1) Safety treads should be installed in the men's locker room outside of the shower room. Installation will be made on a weekend when the shower is not being u
2) Need a safety shower or eye wash station installed in the Latex Storage Tank Area. This was part of a request for various safety showers some time ago that was never approved, but we will try and install this one in the near future.
3) Channels were blocking the area between the iron and pipe racks; channels will be installed on racks if space is available or remove from the area.

Reviewed by Executive Safety Committee 10 20 82 Paul Siebenaller
Date Supervisor's Signature

WTC Operation (weekends & Eve...)

Theory of closed value policy & limited access to WTC
only open when called - then closed
- prevents indiscriminate filling - overflows
- Prevents Incompatible wastes
- failures of system (Inc not leave notes)
(no forewarning of unusual wastelo
(limited treatability capabilities)
(complaints)

new dedicated tank policy
- reasons
- problems

Spills: T.V. Coverage | state knows | Indoors
no floor drains (to sewers)
ramped doorways

Plant Controls: T.F.
Spill Containment Basin (Tank farm)
under drains & Tank farm sump
yard
plugged storm sewers
auto gate @ Interceptor Basin
- yard has most pot for major spill
- only defense is rubber plugs
- Make sure get back in asap...

labels: need 3 items Info
1) Date - LAW
2.) Type of waste
3.) Dept. — not App to maint
- Put Activity?

TCTA Training Outline

PPG INDUSTRIES

INTER-OFFICE CORRESPONDENCE

Date: November 13, 1980

From: C. E. Harrison

To: Howard Timian

Location: Oak Creek C&R Div.

Subject: RCRA Training for WTC Operators

On Thursday, November 13, 1980, a one hour instructional meeting was held in my office for Robert Howard and John Rodriguez who are presently WTC operators. The subject was RCRA regulations as they apply to our facility beginning November 19 of this year. Marty Scheerbaum and I presented the information as follows:

1. Paint waste liquid material that is either toxic or has a flash point below 140°F cannot be landfilled in bulk or drums.

2. A discussion was held on the present in-plant waste drum program. Only solid waste drums, treated filter media drums, or liquid drums above 140°F and not toxic may be landfilled. All other liquid drums must be pumped to bulk tanks for incineration or made solid. The new labeling program for drums was presented.

3. Low flash bulk organic waste in the Waste Treatment Center may only go out to incineration.

4. Bulk aqueous waste in the Waste Treatment Center may be handled in one of three ways:'

   a) Sludge that is above 140°F flash point may be sent out for land-filling.

   b) Sludge that is below 140°F must be sent to solvent recovery still for processing.

   c) Water waste that won't treat can be sent to landfill if above 140°F or must be made into a solid if below 140°F.

5. The current plant production area wash water reuse and segregation pro-program was discussed.

6. It was stressed very strongly that a very accurate log book must be kept for all waste material handling and processing.

Marty Scheerbaum will present RCRA training information to the Material Handling Department Supervisors at 8:00 A.M. on November 17, 1980. A pre-sentation was already given to the Technical Department by Mr. Scheerbaum last week.

C. E. Harrison
Plant Engineer

RM 503-A REV 6-1-70 cc: M. Scheerbaum

SECTION I

CLOSURE PLANS AND FINANCIAL REQUIREMENTS

This Closure Plan is prepared to comply with 40 CFR, Part 265, Paragraphs 265.111-115, 265.142, 265.197 and 265.404; and Wisconsin NR 181.92(8)(b). It is designed to close the facility in a manner that: 1) minimizes the need for further maintenance, and 2) controls, minimizes, or eliminates (to the extent necessary to protect human health and the environment) post closure escape of hazardous wastes, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface water, or to the atmosphere.

I-1 Closure Plan (40 CFR 264.112)

I-1a Closure Performance Standard (40 CFR 264.111)

The economic life of the paint and resin producing facilities at the Oak Creek plant is estimated to be 25 years. Since this plant began operations (production activities in 1975, the projected year of final operations would be in the year 2000. It is also assumed that hazardous waste activities will occur at this factory as long as the plant remains a producing unit, and that closure of the hazardous waste areas will coincide with the plant closure.

The procedures for complete closure of each hazardous waste area identified in the RCRA permit are outlined in Attachment I. These procedures include:

1. Disposal of all hazardous wastes in inventory. Off-site incineration will be assumed the worst-case option.

2. Complete documentation of all associated equipment.

3. Disposal of residual material from the decontamination operation. Once again, off-site incineration will be assumed to be the worst-case option for all wastes.

4. Removal of all decontaminated equipment by disposal as a solid waste, or by selling for reuse or scrap metal.

When a decision is made to cease production activities at the PPG Oak Creek plant, this Closure Plan will be submitted to the EPA Region V Administrator and the Wisconsin Department of Natural Resources for review and approval. This submittal will occur at least 180 days prior to closure.

The only wastes that are received at this facility from off-site generators are those from PPG field distribution units. These wastes will continue to be received from these units until approval is received for the Closure Plan as submitted to the above two (2) agencies. At that time, no more wastes will be received at this facility, and closure activities will begin.

Within 60 days all hazardous wastes in storage or inventory will be disposed of in accordance with the approved Closure Plan and all closure activities will be completed within 180 days. Certification by both PPG Industries, Inc., and a registered Professional Engineer will then be submitted to the EPA Region V Administrator and the Wisconsin DNR that the facility has been closed in accordance with all specifications contained in the approved plan. The PPG storage areas and treatment tanks will be closed in a manner that minimizes the need for further maintenance and controls, and minimizes or eliminates threats to human health and the environment.

I-1b Partial and Final Closure Activities
(40 CFR 264.122(a)(1))

All procedures for final closure of hazardous waste activities are described in Attachment I-1. Partial closure of any of the hazardous waste operations are not planned at this time. However, if future decisions or circumstances require partial closure of hazardous waste management activities, then Attachment I-1 will again describe those procedures used at closure. All modifications of existing equipment, structures, instruments, or procedures relating

to hazardous waste management will result in a revised closure plan.

I-1c Maximum Waste Inventory (40 CFR 264.112 (a)(2))

For the purpose of this plan, the maximum inventory of hazardous wastes in storage and/or treatment will be considered to be the maximum permitted amount (i.e., all tanks are full and the maximum number of drums are in the drum storage area). These maximum permitted inventories are, therefore, used to develop the Closure Cost Estimate.

I-1d Inventory Removal and Disposal or Decontamination of Equipment (40 CFR 264.112 (a)(3))

In general, closure will consist of complete inventory removal by normal procedures, repeated flushings for decontamination, and dismantling of equipment for scrap value or reuse, or disposal of equipment as a normal solid waste. Wastes produced from decontamination of equipment will be sent off-site for ultimate disposal. The procedures specific to closure of each hazardous waste management unit are given in Attachment I-1.

I-1e Closure Schedule (40 CFR 264.112 (a)(4))

Completion of final closure will require approximately six months from the date of the last receipt or generation of hazardous wastes. All hazardous wastes will be treated or disposed of off-site within 90 days after receiving the final volume of hazardous wastes, or 90 days after EPA approval of the closure plan, whichever is later. All subsequent closure procedures will be completed within another 90 days. If it appears that waste disposal or final closure will require more time than allotted, the facility manager will contact the EPA Region V or Wisconsin DNR for an approval of a closure schedule extension. This closure schedule is summarized in Figure I-1-1.

I-2 Post-Closure Plan (40 CFR 264.118)

Post-Closure care will not be needed for this facility because no waste disposal operations occur on-site. Possible uses of the property after closure are described in Attachment I-2.

I-3 Notice in Deed and Notice to Local Land Authority

(40 CFR 264.119)

Since no on-site hazardous waste disposal operations take place at the PPG Oak Creek Plant, notice in deed informing potential purchasers of restrictions associated with a hazardous waste disposal site is not necessary.

I-4 Closure Cost Estimate (40 CFR 264.142)

An estimated $389,378 (December, 1984 cost estimate) will be needed to close the PPG Oak Creek Plant. The closure costs, broken down by activity and equipment subcategories are presented in Attachment I-3. Closure activities include removal of all waste inventories, decontamination of tanks, piping, and pads, disposal of wash and rinse liquids/solvent, and closure certification.

This closure cost estimate is kept on file at the PPG Oak Creek Plant, and will be revised whenever changes in the closure activities or closure plan affects the cost of closure. If during a calendar year, the closure cost estimates are not affected by changes in closure activities, the closure cost estimate will be adjusted to reflect changes brought about by inflation/deflation. The Department of Commerce's Annual Implicit Price Deflator for Gross National Product will be used to make this adjustment. Adjustments due to inflation/deflation will be made before March 30th to correspond to the annual update of financial responsibility.

I-5 Financial Assurance Mechanism for Closure (40 CFR 264.143)

A Closure Performance Bond is currently filed with the Wisconsin Department of Natural Resources to demonstrate PPG Industries, Inc.'s financial responsibility for closure activities at the Oak Creek Plant. The current rider and the original bond are included as Attachment I-5. Demonstration by Financial Test is provided as Attachment I-6.

I-6 Post-Closure Cost Estimate (40 CFR 264.144)

Since this is not a hazardous waste disposal facility, there will be no post-closure activities or costs.

I-7 Financial Assurance Mechanism for Post-Closure

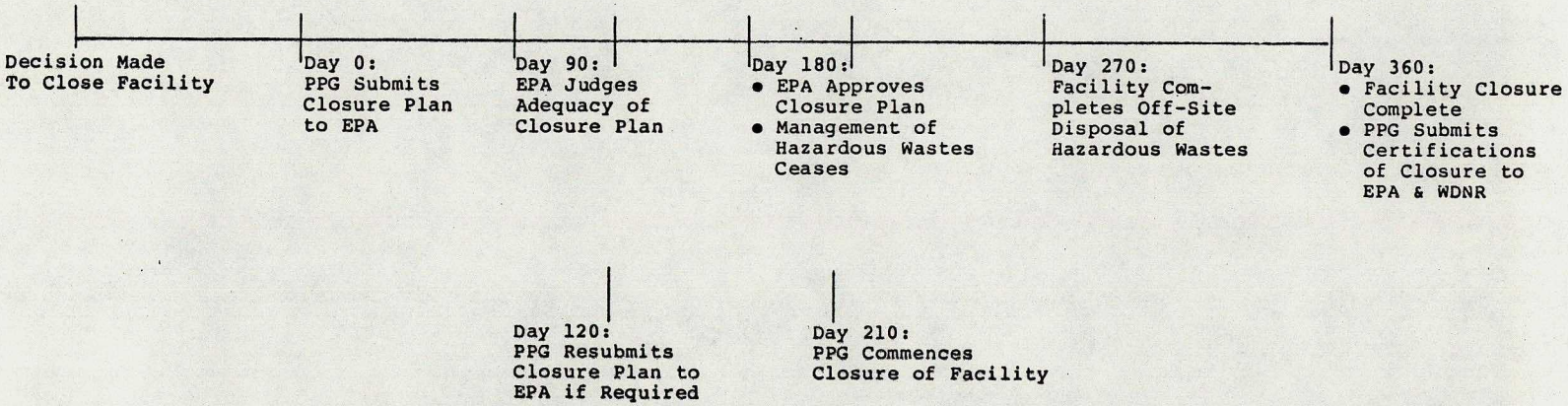
(40 CFR 264.145)

Since this is not a hazardous waste disposal facility, this section is not applicable.

I-8 Liability Insurance (40 CFR 264.147)

Current liability coverage is included as Attachment I-4.

FIGURE I-1-1
SCHEDULE OF FINAL CLOSURE OF THE
PPG, OAK CREEK PLANT



Indicates maximum compliance periods in the absence of EPA delay or approved extension of schedule.

ATTACHMENT I-1

PROCEDURES FOR CLOSURE

ATTACHMENT I-1

PROCEDURES FOR CLOSURE

REGULATED HAZARDOUS WASTE MANAGEMENT AREAS

A. Drum Storage Areas (Items 4 and 5):

There are two drum storage areas, one on the hazardous waste pad (2,700 drums) and one at the Waste Treatment Center (300 drums). All drums in the Drum Storage Areas will be shipped off-site for disposal: liquid drums to secondary fuels blending or incineration, and solid drums to landfill. The storage pads will then be water-blasted to bare concrete to remove any contaminants. The contaminated washwater will be sent off-site for incineration.

B. Organic Waste Tanks (Items 2 and 3):

The entire contents of the two (2) organic waste tanks will be shipped off-site for secondary fuels blending or incineration. These tanks will be flushed with clean solvent to remove any settled material. The volume of this flush will be 10% of the individual tank volumes. This flush will also be incinerated. The tanks and associated piping will then be decontaminated by water-blasting to bare metal. The contaminated washwater will be sent off-site for incineration.

C. Aqueous Sludge Tank (Item 1):

The entire contents of the aqueous sludge storage tank will be sent off-site for incineration. The tank will then be flushed with water to remove any settled material. The volume of this flush will be 10% of the individual tank volumes. This flush will also be shipped off-site for incineration. The tank and associated piping will then be decontaminated by water-blasting to bare metal. The contaminated washwater will be sent off-site for incineration.

D. ST 30 Treatment Tank (Item 6):

The entire contents of the organic pumpable waste treatment tank will be sent off-site for fuel blending or incineration. The tank will then be flushed with solvent to remove any settled material. The volume of this flush will be 10% of the original tank volume. The flush will also be sent off-site for incineration. The tank and associated piping will then be decontaminated by water blasting to bare metal. The contaminated washwater will be sent off-site for incineration.

ATTACHMENT I-1
(Continued)

PROCEDURES FOR CLOSURE

NON-REGULATED WASTE MANAGEMENT AREAS

A. Dirty Solvent Tanks:

Three 15,000 gallon tanks are used for accumulation of spent cleaning solvents. The contents in these tanks will be sent off-site for incineration (assuming worst case). The tanks will then be flushed with clean solvent to remove any settled material. The volume of the flush will be 10% of the individual tank volumes. These flushes will also be incinerated. The tanks and associated piping will then be decontaminated by water-blasting to bare metal. The contaminated water will be sent off-site for incineration.

B. MIBK Storage Tank:

This 15,000 gallon tank is used for accumulation of a resin manufacturing by-product. The contents of this tank will be managed in the same manner and the tank will be decontaminated in the same manner as the Dirty Solvent Tanks.

C. Decanter Tank:

This 2500 gallon tank is used for accumulation of wastewaters from selected sources. These wastewaters contain trace amounts of solvent that separate out. Under normal operations, a constant interface level is maintained by discharging the water layer to the sanitary sewer and the solvent layer to the organic waste tanks. In the event of closure, the entire water layer will be discharged to the sewer and the solvent layer which could have a maximum volume of 1000 gallons will be sent off-site for incineration. The tank will be flushed with water. Flush volume will be 10% of the tank volume. This flush will also be incinerated. The tank and associated piping will then be decontaminated by water-blasting to bare metal. The contaminated water will be sent off-site for incineration.

ATTACHMENT I-2

POSSIBLE USES OF PROPERTY

ATTACHMENT I-2

Description of Possible Uses of the Land After Closure

1. Sell premises to an industrial manufacturer that will utilize part or all of existing buildings and equipment.

2. Sell premises to a commerical or industrial company that will completely rennovate facility.

3. Convert premises into residential area that may consist of condominiums, apartment complexes, or private homes.

4. Convert premises into a recreational area such as golf course or public park area.

5. Return land to agricultural activities.

ATTACHMENT I-3

CLOSURE COST ESTIMATE

ATTACHMENT I-3

Closure Cost Estimate for Hazardous Waste Areas

	Dirty Solvent Tanks (3)	Organic Waste Tanks (2)	Decanter Waste Tank	Aqueous Sludge Tank	ST 30 Treatment Tank	MIBK Storage Tank	Drum Storage Area (3000 drums)	Total
Maximum Capacity (gal)	45,000	12,000	2,500	10,000	6,000	15,000	165,000	
Volume for Disposal (gal)	45,000	12,000	1,000	10,000	6,000	15,000	165,000	
Disposal Method	Incineration	Incineration	Incineration	Incineration	Incineration	Incineration	Landfill or Incineration	
Disposal Fee ($/gal)	0.60	0.60	0.60	1.20	0.60	0.60	1.50	
Inventory Disposal Cost ($)	27,000	7,200	600	12,000	3,600	9,000	269,775	329,175
Flush Volume at 10% (gal)	4,500	1,200	250	1,000	600	1,500	-	
Flush, Type	Solvent	Solvent	Water	Water	Solvent	Solvent	-	
Flush Residue Volume for Disposal (gal)	4,500	1,200	250	1,000	600	1,500	-	
Disposal Method	Incineration	Incineration	Incineration	Incineration	Incineration	Incineration	-	
Disposal Fee ($/gal)	0.60	0.60	1.20	1.20	0.60	0.60	-	
Flush Disposal Cost ($)	2,700	720	300	1,200	360	900	-	6,180
Decontamination: Labor Time (Hrs)	72	24	6	8	12	24	8	
Equip. & Contractor Cost @ $78/hr ($)	5,616	1,872	468	624	936	1,872	624	12,012
Decontamination Method	Hydro-blast	Hydro-blast	Hydro-blast	Hydro-blast	Hydro-blast	Hydro-blast	Hydro-blast	
Volume for Disposal	1,500	600	600	600	600	600	600	
Disposal Method	Incineration	Incineration	Incineration	Incineration	Incineration	Incineration	Incineration	
Disposal Fee ($/gal)	1.20	1.20	1.20	1.20	1.20	1.20	1.20	
Decontamination Disposal Cost (4)	1,800	720	720	720	720	720	720	6,120
Certification by Registered Professional Engineer								500
						Subtotal:		$ 353,987
Contingency (10%)								35,400
						Total Closure Cost Estimate =		$ 389,378

ATTACHMENT I-4

LIABILITY COVERAGE

Attachment I-4

acord® CERTIFICATE OF INSURANCE

SET TAB STOPS AT ARROWS

ISSUE DATE (MM/DD/YY) 6/26/85

PRODUCER

FRANK B. HALL & CO. OF PA, INC.
5975 U.S. STEEL BLDG.
600 GRANT STREET
PITTSBURGH, PA 15219
PHONE: 412-765-3650

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY LETTER	A	Hartford Accident & Indemnity Company
COMPANY LETTER	B	
COMPANY LETTER	C	
COMPANY LETTER	D	
COMPANY LETTER	E	

INSURED

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

COVERAGES

THIS IS TO CERTIFY THAT POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS, AND CONDITIONS OF SUCH POLICIES.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIABILITY LIMITS IN THOUSANDS	EACH OCCURRENCE	AGGREGATE
A	**GENERAL LIABILITY**						
	X COMPREHENSIVE FORM				BODILY INJURY	$	$
	X PREMISES/OPERATIONS						
	UNDERGROUND EXPLOSION & COLLAPSE HAZARD				PROPERTY DAMAGE	$	$
	X PRODUCTS/COMPLETED OPERATIONS	40 CLR P10232E	7/1/85	7/1/86			
	X CONTRACTUAL				BI & PD COMBINED	$ 1,000	$ 2,000
	X INDEPENDENT CONTRACTORS						
	BROAD FORM PROPERTY DAMAGE						
	X PERSONAL INJURY	40 JPR P10233E	7/1/85	7/1/86	PERSONAL INJURY		$
	AUTOMOBILE LIABILITY						
	ANY AUTO				BODILY INJURY (PER PERSON)	$	
	ALL OWNED AUTOS (PRIV. PASS.)						
	ALL OWNED AUTOS (OTHER THAN PRIV. PASS.)				BODILY INJURY (PER ACCIDENT)	$	
	HIRED AUTOS				PROPERTY DAMAGE	$	
	NON-OWNED AUTOS						
	GARAGE LIABILITY				BI & PD COMBINED	$	
	EXCESS LIABILITY						
	UMBRELLA FORM				BI & PD COMBINED	$	$
	OTHER THAN UMBRELLA FORM						
	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY		
					$	(EACH ACCIDENT)	
					$	(DISEASE-POLICY LIMIT)	
					$	(DISEASE-EACH EMPLOYEE)	
	OTHER						

RECEIVED
JUL - 1 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

JOB: All operations of the insured

CERTIFICATE HOLDER

Environmental Protection Agency
Region 5
RCRA Activities
P.O. BOx A-3587
Chicago, IL 60690-3587

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 10 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

F. B. Hall & Co. of PA, Inc.

© IIR/ACORD CORPORATION 1984

ATTACHMENT I-5

CLOSURE PERFORMANCE BOND

I-5 Financial Assurance Mechanism for Closure (40 CFR 264.143)

A Closure Performance Bond is currently filed with the Wisconsin Department of Natural Resources to demonstrate PPG Industries, Inc.'s financial responsibility for closure activities at the Oak Creek Plant. The current rider and the original bond are included as Attachment I-5. Demonstration by Financial Test is provided as Attachment I-6.

ATTACHMENT I-1
(Continued)

PROCEDURES FOR CLOSURE

NON-REGULATED WASTE MANAGEMENT AREAS

A. Dirty Solvent Tanks:

Three 15,000 gallon tanks are used for accumulation of spent cleaning solvents. The contents in these tanks will be sent off-site for incineration (assuming worst case). The tanks will then be flushed with clean solvent to remove any settled material. The volume of the flush will be 10% of the individual tank volumes. These flushes will also be incinerated. The tanks and associated piping will then be decontaminated by water-blasting to bare metal. The contaminated water will be sent off-site for incineration.

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C. Decanter Tank:

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Date: 7/10/85
Revision No. 0
I

Attachment I-5

May 13, 1985

To: C. M. Babka
D. Scudder

Re: Oak Creek RCRA Financial Responsibility Demonstration

Attached for your files is a copy of the rider to PPG's bond. This rider reflects the most recent closure costs. Please call if you have any questions.

Susan G. Kuis
Attorney

SGK:sdh

Attachment

RECEIVED
MAY 16 1985
ENVIRONMENTAL ENGINEERING
& CONTROL DEPARTMENT

Read
4/18/85

CHUBB

CHUBB GROUP of Insurance Companies

15 Mountain View Road, Warren, NJ 07060

FEDERAL INSURANCE COMPANY

RIDER to be attached to and form a part of
Bond No. **8078-31-20** wherein
FEDERAL INSURANCE COMPANY
is named as Surety, on behalf of
PPG INDUSTRIES, INC.
as Principal, in favor of
STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES
in the sum of **TWO HUNDRED EIGHTY NINE THOUSAND TWELVE and 00/100-----**
dated **11/24/81** effective **11/24/81** **($289,012.00)**

IT IS HEREBY UNDERSTOOD AND AGREED that effective the **19th** day of **March, 1985**
the penalty of this bond is **increased**
from **TWO HUNDRED EIGHTY NINE THOUSAND TWELVE and 00/100----------** ($289,012.00--)
to **THREE HUNDRED EIGHTY NINE THOUSAND FOUR HUNDRED and 00/100-------** ($389,400.00--)
as to losses occurring after the **19th** day of **March, 1985.**

Provided, however, that the liability of the Principal and Surety hereon shall not be cumulative or in any event exceed the larger amount referred to herein.

The attached bond shall be subject to all its agreements, limitations and conditions except as herein expressly modified.

Signed, sealed and dated this **21st** day of **March**, 19 **85**

PPG INDUSTRIES, INC.

By: H. R. Call
Treasurer (Principal)

FEDERAL INSURANCE Company:

By: Margaret Carfagno
Margaret Carfagno, Attorney-in-Fact

ACCEPTED

By: Paul P. Richter 4/24/85 (Obligee)
Director Bureau of Solid Waste Management

Form 15-02-72 (Ed. 8-75) (Formerly 12451)

R-22125 (4M) PRINTED IN U.S.A.

POWER OF ATTORNEY

Know all Men by these Presents, That the **FEDERAL INSURANCE COMPANY**, 15 Mountain View Road, Warren, New Jersey, a New Jersey Corporation, has constituted and appointed, and does hereby constitute and appoint John B. Fuoss, Margaret Carfagno, Kathleen D. Rees, Neil W. Frick, Ann Beauchamp and Walter P. Guzzo of Pittsburgh, Pennsylvania----------

each its true and lawful Attorney-in-Fact to execute under such designation in its name and to affix its corporate seal to and deliver for and on its behalf as surety thereon or otherwise, bonds or obligations given or executed in the course of its business, and any instruments amending or altering the same, and consents to the modification or alteration of any instruments referred to in said bonds or obligations.

In Witness Whereof, the said **FEDERAL INSURANCE COMPANY** has, pursuant to its By-Laws, caused these presents to be signed by its Assistant Vice-President and Assistant Secretary and its corporate seal to be hereto affixed this 30th day of March 19 84

Corporate Seal

FEDERAL INSURANCE COMPANY NEW JERSEY

Richard D. O'Connor
Assistant Secretary

FEDERAL INSURANCE COMPANY
By
George McClellan
Assistant Vice-President

STATE OF NEW JERSEY
County of Somerset } **SS.**

this 30th day of March 19 84 . before me personally came Richard D. O'Connor to me known and by me known to be Assistant Secretary of the **FEDERAL INSURANCE COMPANY**, the corporation described in and which executed the foregoing Power of Attorney, and the said Richard D. O'Connor being by me duly sworn, did depose and say that he is Assistant Secretary of the **FEDERAL INSURANCE COMPANY** and knows the corporate seal thereof; that the seal affixed to the foregoing Power of Attorney is such corporate seal and was thereto affixed by authority of the By-Laws of said Company, and that he signed said Power of Attorney as Assistant Secretary of said Company by like authority, and that he is acquainted with George McClellan and knows him to be the Assistant Vice-President of said Company, and that the signature of said George McClellan subscribed to said Power of Attorney is in the genuine handwriting of said George McClellan and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Notarial Seal

ALICE LEONARD NOTARY PUBLIC NEW JERSEY

Acknowledged and Sworn to before me
on the date above written

Notary Public

CERTIFICATION

STATE OF NEW JERSEY
County of Somerset } **SS.**

ALICE LEONARD
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires June 28, 1988

I, the undersigned, Assistant Secretary of the **FEDERAL INSURANCE COMPANY**, do hereby certify that the following is a true excerpt from the By-Laws of the said Company as adopted by its Board of Directors on March 11, 1953 and most recently amended March 11, 1983 and that this By-Law is in full force and effect

"ARTICLE XVIII

Section 2. All bonds, undertakings, contracts and other instruments other than as above for and on behalf of the Company which it is authorized by law or its charter to execute, may and shall be executed in the name and on behalf of the Company either by the Chairman or the Vice-Chairman or the President or a Vice-President, jointly with the Secretary or an Assistant Secretary, under their respective designations, except that any one or more officers or attorneys-in-fact designated in any resolution of the Board of Directors or the Executive Committee or in any power of attorney executed as provided for in Section 3 below, may execute any such bond, undertaking or other obligation as provided in such resolution or power of attorney.

Section 3. All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the Vice-Chairman or the President or a Vice-President or an Assistant Vice-President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed."

I further certify that said **FEDERAL INSURANCE COMPANY** is duly licensed to transact fidelity and surety business in each of the States of the United States of America, District of Columbia, Puerto Rico, and each of the Provinces of Canada with the exception of Prince Edward Island, and is also duly licensed to become sole surety on bonds, undertakings, etc., permitted or required by law.

I, the undersigned Assistant Secretary of **FEDERAL INSURANCE COMPANY**, do hereby certify that the foregoing Power of Attorney is in full force and effect.

In under my hand and the seal of said Company at Warren, N.J., this 21st day of March 19 85

Corporate Seal

FEDERAL INSURANCE COMPANY NEW JERSEY

Assistant Secretary

File

PPG INDUSTRIES

PPG INDUSTRIES, INC./151 COLFAX STREET/P.O. BOX 127/SPRINGDALE, PA 15144/AREA 412/362-4410
412/274-4500

FEDERAL EXPRESS: RETURN RECEIPT REQUESTED

L. N. STREFF, Manager
Environmental Engineering and Control
Coatings and Resins Division

November 24, 1981*

Mr. Skip Glor
Southeast District Coordinator
Department of Natural Resources
9722 W. Watertown Plank Road
Milwaukee, WI 53213

Dear Mr. Glor:

Attached are two original forms showing proof of financial responsibility for PPG Industries, Inc., Oak Creek, Wisconsin (WID059972935) as required by Wisconsin Hazardous Waste Regulation NR 181.42 (10). The Closure Cost estimate for this facility is $289,012. If you have any questions, please contact this office at (412) 274-4500.

Sincerely,

Christine M. Babka

Christine M. Babka
Environmental Engineer

/n

cc: L. N. Streff/File
D. Scudder - Oak Creek

* - sent by S. P. McPherson, G.O.

State of Wisconsin
Department of Natural Resources

CLOSURE PERFORMANCE BOND
(For Use by Solid Waste Land Disposal Sites and Hazardous Waste Facilities)
Form 4400-65 Rev. 9-81

LEAVE BLANK – DNR USE ONLY
Regulatory Code
EPA Identification Number
License Number
Name of Licensee
Closure Cost Estimate

KNOW ALL MEN BY THESE PRESENTS, that PPG Industries, Inc. (Owner)

of One Gateway Center, Pittsburgh, PA 15222 (Address), as Principal, and

Federal Insurance Company, One Oliver Plaza, Pittsburgh, PA 15222 (Name of Surety Company), a surety company organized

and existing under the laws of the State of New Jersey and duly authorized to do surety business in the State of Wisconsin, as Surety, are held and firmly bound unto the State of Wisconsin Department of Natural Resources, as Obligee, in the penal sum of Two hundred eighty nine thousand twelve and 00/100 ---------- dollars ($ 289,012.00), for payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Principal owns a solid waste land disposal site or hazardous waste facility named PPG Industries, Inc. Coatings & Resins located in SW 1/4 Sect. 32, T5N, R22E (Section, Township and Range), Town/City/Village of Oak Creek, Milwaukee County, Wisconsin, and that site or facility is subject to either the closure requirements of the plan of operation approval issued by the Obligee, dated this 24th day of November, 19 81, and any amendments thereto or the closure requirements of sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable to the site or facility.

WHEREAS, section 144.44(3)(c), Wisconsin Statutes, requires that the Principal provide the Obligee with proof of financial responsibility ensuring that the closure requirements of the plan of operation approval, if any, will be complied with by the Principal and any successor in interest.

WHEREAS, this bond is written to provide proof of financial responsibility pursuant to section 144.44(3)(c), Wisconsin Statutes, and section NR 180.15 or NR 181.42(10), Wisconsin Administrative Code, to ensure compliance with the closure requirements of the plan of operation approval and any amendments thereto or the closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable, and shall inure to the benefit of the Obligee.

NOW, THEREFORE, the condition of this obligation is such that if the Principal or any successor in interest complies with the closure requirements of the plan of operation approval and any amendments thereto or the closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable, and closes the facility identified above in accordance with these closure requirements then and only then, this obligation shall be void; otherwise, it shall remain in full force and effect.

The Surety shall become liable on this bond obligation only upon a determination by the Obligee, subject to judicial review, that the Principal has failed to fulfill the above condition. Following such a determination, the Surety must either complete closure of the facility in accordance with the plan of operation approval and any amendments thereto or the closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable, or pay the amount of this bond as directed by the Secretary of the Obligee.

The liability of the Surety shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the full penal sum of this bond, but in no event shall the obligation of the Surety thereunder exceed the full penal sum of this bond. Release or discharge of the Surety shall not release the Principal or any successor in interest from the obligation to fully and completely comply with all closure requirements of the plan of operation approval and any amendments thereto or all closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable. The insolvency or bankruptcy of the Principal shall not constitute a defense to the Surety with regard to any claim of liability on the obligation of this bond. No amendment to the plan of operation approval will release the Surety from its obligation under this bond.

The Surety hereby waives notification of any failure on the part of the Principal or any successor in interest to faithfully comply with the terms of the plan of operation approval or any amendments thereof or the closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable, and lack of notice from the Obligee will not bar or limit recovery against the Surety.

This bond is effective on the 24th day of November, 19 81, and shall continue in force until terminated as hereinafter provided. As long as any obligation of the owner or any successor in interest for closure in accordance with the plan of operation approval and any amendments thereto or the closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable, exists, this bond shall not be cancelled by the Surety unless a replacement bond or other proof of financial responsibility acceptable to the Obligee is provided to the Obligee. If the Surety proposes to cancel this bond, notice shall be provided to the Obligee and the Principal in writing by registered or certified mail not less than 90 days prior to the proposed cancellation date. Not less than 30 days prior to the expiration of the 90 day notice period, the Principal shall deliver to the Obligee a replacement bond or other proof of financial responsibility acceptable to the Obligee. In the absence of the delivery of a replacement bond or other acceptable proof of financial responsibility, all site or facility operations shall immediately cease and this bond shall remain in full force and effect as long as any obligation of the Principal or any successor in interest for closure in accordance with the plan of operation approval and any amendments thereto or the closure requirements in sections NR 181.42(8) and NR 181.44(12) and (13), Wisconsin Administrative Code, if applicable, remains unsatisfied.

Signed, sealed and dated this 24th day of November, 19 81.

PPG INDUSTRIES, INC.

BY: Ralph S Michael Jr.
Principal VICE PRESIDENT

ATTEST:
Rose M. Perona
Assistant Secretary

FEDERAL INSURANCE COMPANY
Surety

BY: Peter Burke
Attorney in Fact Peter Burke

Bond Number 8 078-31-20

ATTACHMENT I-6

FINANCIAL ASSURANCE TEST

PPG Industries, Inc. One PPG Place Pittsburgh, Pennsylvania 15272

Law Department
Writer's Direct Dial No.: (412) 434-2451

December 10, 1985

Mr. Richard E. O'Hara
Chief, Hazardous Waste Management Section
Bureau of Solid Waste Management
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707

Re: Notice of Deficiency on Part B RCRA Application
Financial Responsibility

Dear Mr. O'Hara:

PPG has maintained compliance with applicable DNR financial responsibility requirements by filing a bond on forms provided by DNR. We will continue to comply with Wisconsin requirements through either our existing bond, or the new financial test mechanism now available.

It is my understanding from discussions with Mr. Ed Lynch that although Wisconsin has Phase I RCRA authority, it is DNR's position that its regulations are inapplicable for permitted facilities. Therefore, until Wisconsin obtains full delegation, permitted facilities (and Part B applicants) must demonstrate compliance with all applicable sections of 40 CFR 264. This is not the case in many states and PPG had presumed that Wisconsin financial responsibility requirements would be applicable since Wisconsin had Phase I authority and Phase I includes financial responsibility. For these reasons, PPG had submitted copies of its bond along with our Part B permit application.

After discussing this with Mr. Lynch, it is my understanding that until Wisconsin receives final RCRA authority, PPG must continue to comply with DNR regulations, but must also meet federal requirements for financial responsibility. To comply with Part 264, we have prepared the attached December 5 letter from our chief financial officer, Mr. R. H.Mitchel, as specified in 40 CFR 264.151(g). We have not submitted this letter to Region V under the assumption that you will be forwarding PPG's complete package of information to EPA.

Please note in this regard that PPG did submit a similar financial responsibility letter on March 27, 1985, to the Region V Administrator to fulfill our financial responsibility requirements for our Adrian, Michigan, facility (copy attached). Also please note that we are submitting a copy of the independent auditor's report that was submitted with our March 27, 1985, letter. The auditor's report certifies that items 4, 5, 6, 7, 8, 10, 11 and 15 are correctly reported from our 1984 annual report. Since this is still our most recent annual report, and therefore none of these items has changed since March, the auditor's report is valid for Mr. Mitchel's December 5 letter as well. The only changes from the March 27 letter are the addition of Oak Creek, Wisconsin, and revisions to the closure costs for PPG's Springdale, Pennsylvania, facilities. I discussed this point with Mr. Lynch who agreed it probably did not make sense to have a new auditor's report prepared.

Please contact me if there are any questions on this financial responsibility submission.

Sincerely,

Susan G. Kuis

Susan G. Kuis
Attorney

SGK:sdh

Attachments

PPG Industries, Inc. One PPG Place Pittsburgh, Pennsylvania 15272 (412) 434-2110

R. H. Mitchel
Vice President, Finance

December 5, 1985

Regional Administrator, Region V
Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

Re: Letter from Chief Financial Officer to Demonstrate Both Liability Coverage and Assurance of Closure or Post-Closure Care

Dear Sir:

I am the Chief Financial Officer of PPG Industries, Inc., One PPG Place, Pittsburgh, Pennsylvania 15272. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in Subpart H of 40 CFR Parts 264 and 265.

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265:

EPA ID Number	Address
MID048788749	Adrian, MI
WID059972935	Oak Creek, WI

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

EPA ID Number	Address	Closure Costs	Post-Closure Costs
MID048788749	Adrian, MI	$ 15,300	0
WID059972935	Oak Creek, WI	$389,400	0
	TOTAL	$404,700	

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: None.

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:

EPA ID Number	Address	Closure Costs	Post-Closure Costs
OHD004198917	Barberton, OH	$ 150,600	0
TXD020805446	Beaumont, TX	7,400,000	0
OHD004304689	Circleville, OH	669,900	0
OHD004460143	Cleveland, OH	81,900	0
OHD004347308	Delaware, OH	171,500	0
DED060074291	Dover, DE	21,500	0
GAD075876623	East Point, GA	54,800	0
TXD008070898	Houston, TX	53,400	0
LAD008086506	Lake Charles, LA	753,600	$110,000
TXD000356907	LaPorte, TX	38,800	0
WVD004336343	Natrium, WV	545,800	0
PAD004336319	Springdale, PA (Plant)	110,000	0
PAD000650366	Springdale, PA(R&D)	112,000	0
CAD008323438	Torrance, CA	77,800	0
TXD078552932	Wichita Falls, TX	25,000	0
	TOTAL	$10,266,600	$110,000

4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for

closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on December 31. The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 1984.

Alternative 1:

	(in Millions)
1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)	$ 10.781
2. Amount of annual aggregate liability coverage to be demonstrated	$ 15.000
3. Sum of lines 1 and 2.	$ 25.781
*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6).	$ 1,781.6
*5. Tangible net worth.	$ 1,936.5
*6. Net worth.	$ 2,015.1
*7. Current assets.	$ 1,331.7
*8. Current liabilities.	$ 773.2
9. Net working capital (line 7 minus line 8).	$ 558.5
*10. The sum of net income plus depreciation, depletion, and amortization.	$ 512.2

		YES	NO
*11.	Total assets in U.S. (required only if less than 90% of assets are located in the U.S.)	$ 2,985.0	
12.	Is line 5 at least $10 million?	X	___
13.	Is line 5 at least 6 times line 3?	X	___
14.	Is line 9 at least 6 times line 3?	X	___
*15.	Are at least 90% of assets located in the U.S.? If not, complete line 16.	___	X
16.	Is line 11 at least 6 times line 3?	X	___
17.	Is line 4 divided by line 6 less than 2.0?	X	___
18.	Is line 10 divided by line 4 greater than 0.1?	X	___
19.	Is line 7 divided by line 8 greater than 1.5?	X	___

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 264.151(g) as such regulations were constituted on the date shown immediately below.

Sincerely yours,

R. H. Mitchel
Vice President, Finance
December 5, 1985

RHM:sdh

Deloitte
Haskins + Sells

2400 One PPG Place
Pittsburgh, Pennsylvania 15222
(412) 263-6900
Telex 4423028

March 27, 1985

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Dear Sirs:

We have examined the balance sheet of PPG Industries, Inc. and consolidated subsidiaries as of December 31, 1984 and the related statements of earnings and of source and use of funds for the year then ended, and have issued our report thereon dated January 22, 1985. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We have not performed any auditing procedures beyond the date of our opinion on the financial statements; accordingly, this report is based on our knowledge as of that date and should be read with that understanding.

At your request, we have performed the procedures enumerated below with respect to the accompanying letter from Mr. Robert H. Mitchel to the Regional Administrator, Region V, Environmental Protection Agency dated March 27, 1985. It is understood that this report is solely for filing with the Regional Administrator, Region V, Environmental Protection Agency in accordance with requirements of the Resource Conservation and Recovery Act, and is not to be used for any other purpose. The procedures that we performed are summarized as follows:

1. We compared the amounts included in items 4, 6, 7, 8 and 11 under the caption Alternative I in the letter referred to above with the corresponding amounts in the financial statements referred to in the first paragraph.

2. We recomputed from, or reconciled to, the financial statements referred to in the first paragraph the information included in items 5, 10 and 15 under the caption Alternative I in the letter referred to above.

Because the procedures referred to in the preceding paragraph were not sufficient to constitute an examination made in accordance with generally accepted auditing standards, we do not express an opinion on any of the information or amounts listed under the caption Alternative I in the aforementioned letter. In performing the procedures referred to above, however, no matters came to our attention that caused us to believe that the information or amounts included in items 4, 5, 6, 7, 8, 10, 11 and 15 should be adjusted.

Yours truly,

Deloitte Haskins & Sells

PPG Industries, Inc. One PPG Place Pittsburgh, Pennsylvania 15272

Law Department
Writer's Direct Dial No.: (412) 434-2451

March 27, 1985

CERTIFIED MAIL/RETURN RECEIPT REQUESTED

Regional Administrator, Region V
Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

Dear Sir:

Enclosed are documents evidencing PPG's demonstration of financial responsibility under the Resource Conservation and Recovery Act. In addition to the letter from our Chief Financial Officer, Mr. Mitchel, and PPG's independent accounting firm, Deloitte, Haskins & Sells, we have enclosed a copy of our annual report to shareholders.

PPG has endeavored to assure that the wording of the letter is in accordance with all applicable requirements. In this regard, please note that the total sum of aggregate sudden and non-sudden liability demonstrated is $15 million. This amount is pursuant to requirements of the State of Louisiana and is used in all of PPG's financial responsibility demonstration letters.

Please address all questions on this submission to Susan Kuis (412) 434-2451.

Sincerely,

Susan G. Kuis

Susan G. Kuis
Attorney

SGK/eb
Enc.

bcc: L. N. Streff
R. J. Samelson
G. E. Palchak
L. Kreuer

PPG Industries, Inc. One PPG Place Pittsburgh, Pennsylvania 15272 (412) 434-2110

R. H. Mitchel
Vice President, Finance

March 27, 1985

Regional Administrator, Region V
Environmental Protection Agency
230 South Dearborn Street
Chicago, IL 60604

Re: Letter from Chief Financial Officer to Demonstrate Both Liability Coverage and Assurance of Closure or Post-Closure Care

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The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265:

EPA ID Number	Address
MID048788749	Adrian, MI

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

EPA ID Number	Address	Closure Costs	Post-Closure Costs
MID048788749	Adrian, MI	$ 15,300	0
	TOTAL	$ 15,300	

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Subpart H of 40 CFR Parts 264 and 265, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: None.

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR Parts 264 and 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR Parts 264 and 265. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:

EPA ID Number	Address	Closure Costs	Post-Closure Costs
OHD004198917	Barberton, OH	$ 150,600	0
TXD020805446	Beaumont, TX	7,400,000	0
OHD004304689	Circleville, OH	669,900	0
OHD004460143	Cleveland, OH	81,900	0
OHD004347308	Delaware, OH	171,500	0
DED060074291	Dover, DE	21,500	0
GAD075876623	East Point, GA	54,800	0
TXD008070898	Houston, TX	53,400	0
LAD008086506	Lake Charles, LA	753,600	$110,000
TXD000356907	LaPorte, TX	38,800	0
WVD004336343	Natrium, WV	545,800	0
CAD008323438	Torrance, CA	77,800	0
TXD078552932	Wichita Falls, TX	25,000	0
	TOTAL	$10,044,600	$110,000

4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR Parts 264 and 265 or equivalent or substantially equivalent State mechanisms. The current closure

and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:

EPA ID Number	Address	Closure Costs	Post-Closure Costs
PAD004336319	Springdale, PA (plant)	$ 108,400	0
PAD000650366	Springdale, PA (R&D)	62,000	0
	TOTAL	$ 170,400	

This owner or operator is required to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on December 31. The figures for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 1984.

Alternative 1:

	(in Millions)
1. Sum of current closure and post-closure cost estimates (total of all cost estimates listed above)	$ 10.340
2. Amount of annual aggregate liability coverage to be demonstrated	$ 15.000
3. Sum of lines 1 and 2.	$ 25.340
*4. Total liabilities (if any portion of your closure or post-closure cost estimates is included in your total liabilities, you may deduct that portion from this line and add that amount to lines 5 and 6).	$ 1,781.6
*5. Tangible net worth.	$ 1,936.5
*6. Net worth.	$ 2,015.1
*7. Current assets.	$ 1,331.7
*8. Current liabilities.	$ 773.2
9. Net working capital (line 7 minus line 8).	$ 558.5

*10. The sum of net income plus depreciation, depletion, and amortization.	$ 512.2	
*11. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.)	$ 2,985.0	
	YES	NO
12. Is line 5 at least $10 million?	X	
13. Is line 5 at least 6 times line 3?	X	
14. Is line 9 at least 6 times line 3?	X	
*15. Are at least 90% of assets located in the U.S.? If not, complete line 16.		X
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Sincerely yours,

R. H. Mitchel
Vice President, Finance
March 27, 1985

/eb

Deloitte
Haskins+Sells

2400 One PPG Place
Pittsburgh, Pennsylvania 15222
(412) 263-6900
Telex 4423028

March 27, 1985

PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

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Yours truly,

Deloitte Haskins & Sells

SECTION J

OTHER FEDERAL LAWS

Information will be provided in accordance with requirements of 40 CFR Part 270.14(b)(20) at the request of the EPA Region V office. At this time, however, we believe this facility is in compliance with the following Federal Laws:

1. Wild and Scenic Rivers Act
2. National Historic Preservation Act of 1966
3. Endangered Species Act
4. Coastal Zone Management Act
5. Fish and Wildlife Coordination Act
6. NPDES - Permit WI-0029149-2

SECTION K

CERTIFICATION
40 CFR 270.11(D)

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Date July 10, 1985

Signature Malcolm G. Slaney

Name and Title: Malcolm G. Slaney

Group Vice-President

PPG Coatings & Resins