

GRENADA COUNTY - TIE PLANT MS
KOPPERS INC
COMPLIANCE
MSD007027543
1985-----1986

AI 00876

Koppers Inc

General Information

ID	Branch	SIC	County	Basin	Start	End
876	Energy and Transportation	2491	Grenada	Yazoo River	11/09/1981	

Address

Physical Address (Primary)	Mailing Address
1 Koppers Drive Tie Plant, MS 38960	PO Box 160 Tie Plant, MS 38960

Telecommunications

Type	Address or Phone
Work phone number	(662) 226-4584, Ext. 11

Alternate / Historic AI Identifiers

Alt ID	Alt Name	Alt Type	Start Date	End Date
2804300012	Koppers Inc	Air-AIRS AFS	10/12/2000	
096000012	Koppers, Inc.	Air-Title V Fee Customer	12/11/2006	
096000012	Koppers Industries, Inc.	Air-Title V Operating	03/11/1997	03/01/2002
096000012	Koppers Industries, Inc.	Air-Title V Operating	01/13/2004	03/26/2007
096000012	Koppers Inc	Air-Title V Operating	03/26/2007	01/01/2009
MSR220005	Koppers Industries, Inc.	GP-Wood Treating	09/25/1992	
MSD007027543	Koppers Industries, Inc.	Hazardous Waste-EPA ID	08/27/1999	
HW8854301	Koppers Industries, Inc.	Hazardous Waste-TSD	06/28/1988	06/28/1998
HW8854301	Koppers Industries, Inc.	Hazardous Waste-TSD	11/10/1999	03/26/2007
HW8854301	Koppers, Inc. (Owner)	Hazardous Waste-TSD	03/26/2007	09/30/2009
876	Koppers Industries, Inc.	Historic Site Name	11/09/1981	12/11/2006
876	Koppers, Inc.	Official Site Name	12/11/2006	
MSP090300	Koppers Industries, Inc.	Water-Pretreatment	11/14/1995	11/13/2000
MSP090300	Koppers Industries, Inc.	Water-Pretreatment	09/18/2001	08/31/2006
MSP090300	Koppers Inc	Water-Pretreatment	03/26/2007	02/28/2012
MSU081080	Koppers Industries, Inc.	Water-SOP	11/09/1981	11/30/1985

Regulatory Programs

Program	SubProgram	Start Date	End Date
Air	Title V - major	06/01/1900	
Hazardous Waste	Large Quantity Generator	08/27/1999	
Hazardous Waste	TSD - Not Classified	06/28/1988	
Water	Baseline Stormwater	01/01/1900	
Water	PT CIU	11/14/1995	
Water	PT CIU - Timber Products Processing (Subpart 429)	11/14/1995	
Water	PT SIU	11/14/1995	

Locational Data

Latitude	Longitude	Metadata	S / T / R	Map Links

33 ° 44 ' 3 .00 (033.734167)	89 ° 47 ' 8 .06 (089.785572)	Point Desc: PG- Plant Entrance (General). Data collected by Mike Hardy on 11/8/2005. Elevation 223 feet. Just inside entrance gate. Method: GPS Code (Psuedo Range) Standard Position (SA Off) Datum: NAD83 Type: MDEQ	Section: Township: Range:	SWIMS TerraServer Map It
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4/3/2007 12:58:30 PM

KOPPERS

RECEIVED
NOV 8 1985

November 8, 1985

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

James H. Scarbrough, P.E., Chief
Residuals Management Branch
- Waste Management Division
USEPA - Region IV
345 Courtland Street
Atlanta, GA 30365

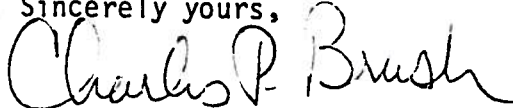
RE: Part A Application
Grenada, Mississippi Facility

Gentlemen:

Enclosed is a revised RCRA Part A Application for the above referenced Koppers Company, Inc. facility (EPA I.D. No. MSD007027543). Koppers does not believe that the spray field at this facility should be identified as a RCRA regulated unit. This submission is a protective filing, until such time as the regulatory status of the unit can be resolved, and does not constitute agreement by Koppers Company that the unit in question is a hazardous waste management unit as currently defined by regulation.

If you have any questions concerning this submission, please contact me at the above telephone number and address.

Sincerely yours,



Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs

CPB/mas

Enclosure

cc: Jim Hardage
Mississippi Dept. of
Natural Resources
Bureau of Pollution Control
2380 Highway 80 West
Jackson, MS 39204

LABEL ITEMS

EPA I.D. NUMBER

I. FACILITY NAME

FACILITY MAILING ADDRESS

FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, at it in the designated space. Review the information carefully; if any of it is incorrect, or through it and enter the correct data in appropriate fill-in area below. Also, if any the preprinted data is absent (the area to left of the label space lists the information that should appear), please provide it in 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 items if no label has been provided. Refer the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

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"			SPECIFIC QUESTIONS	MARK "X"		
	YES	NO	FORM ATTACHED		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	

L. NAME OF FACILITY

SKIP KOPPERS COMPANY, INC.

FACILITY CONTACT

A. NAME & TITLE (last, first, & title) (ACTING)

J. D. CLAYTON PLANT MGR

B. PHONE (area code & no.)

601 226 4584

FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

Box 160

B. CITY OR TOWN

TIE PLANT

C. STATE

MS

D. ZIP CODE

38960

FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

TIE PLANT ROAD

B. COUNTY NAME

RENADA

C. CITY OR TOWN

D. STATE

E. ZIP CODE

F. COUNTY CODE (if known)

A. FIRST 49! (specify) WOOD PRESERVING		B. SECOND 7 (specify) NOT APPLICABLE	
C. THIRD (specify) NOT APPLICABLE		D. FOURTH (specify) NOT APPLICABLE	

OPERATOR INFORMATION

A. NAME OPPERS COMPANY, INC.		B. Is the name listed in item VIII-A also the owner? ☒ YES ☐ NO
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C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.) FEDERAL M = PUBLIC (other than federal or state) P (specify) + STATE O = OTHER (specify) PRIVATE		D. PHONE (area code & no.) A 412 227 2000
--	--	--

E. STREET OR P.O. BOX 36 SEVENTH AVENUE
--

F. CITY OR TOWN PITTSBURGH	G. STATE PA	H. ZIP CODE 15219	IX. INDIAN LAND Is the facility located on Indian lands? ☐ YES ☒ NO
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EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water) N/A	D. PSD (Air Emissions from Proposed Sources) 9 P
B. UIC (Underground Injection of Fluids) N/A	E. OTHER (specify) 76-024
C. RCRA (Hazardous Wastes) N/A	E. OTHER (specify) 0960-00012
STATE EFFLUENT ZERO DISCHARGE	
(specify) AIR- WOOD BURNING BOILER	

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. 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 management, 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.

NATURE OF BUSINESS (provide a brief description)

THIS PLANT PRODUCES PRESSURE TREATED WOOD PRODUCTS USING THE PRESERVATIVES PENTACHLOROPHEVOL AND COAL TAR CREOSOTE.

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) Charles P. Brush, P.E., Program Manager for Hazardous Waste Affairs	B. SIGNATURE Charles P. Brush	C. DATE SIGNED 11-7-85
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COMMENTS FOR OFFICIAL USE ONLY

OR OFFICIAL USE ONLY

APPLICATION APPROVED

DATE RECEIVED (yr., mo., & day)

COMMENTS

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.

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

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

☐ 2. NEW FACILITY (Complete item below.)

YR.

MO.

DAY

04

01

01

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

YR.

MO.

DAY

FOR NEW FACILITY PROVIDE THE DATE (yr., mo., & day) OPERATION BEGAN OR IS EXPECTED TO BEG

REVISED APPLICATION (place an "X" below and complete item I above)

☒ 1. FACILITY HAS INTERIM STATUS

☐ 2. FACILITY HAS A RCRA PERMIT

II. PROCESSES - CODES AND DESIGN CAPACITIES

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).

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	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:			Treatment:		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS		T02	GALLONS PER DAY OR LITERS PER DAY
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	SURFACE IMPOUNDMENT	T03	TONS PER HOUR OR METRIC TONS PER HOUR
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	INCINERATOR	T04	GALLONS PER DAY OR LITERS PER DAY
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	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.)		
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			
UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE CODE
GALLONS	G	LITERS PER DAY	V	ACRE-FEET	A
LITERS	L	TONS PER HOUR	D	HECTARE-METER	F
CUBIC YARDS	Y	METRIC TONS PER HOUR	W	ACRES	B
CUBIC METERS	C	GALLONS PER HOUR	E	HECTARES	G
GALLONS PER DAY	U	LITERS PER HOUR	H		

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.

DUP

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY	FOR OFFICIAL USE ONLY
		1. AMOUNT (specify)				1. AMOUNT	
		2. UNIT OF MEASURE (enter code)				2. UNIT OF MEASURE (enter code)	
1	S02	200		5			
2	T03	400		6			
	S01	10,560		7			
	S04	19,545		8			
	T04	APPROXIMATELY 2.5		9			
				10			

MSD007027543

W

DUP

DUP

V. DESCRIPTION OF HAZARDOUS WASTES (continued)

W. 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)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	K001	2500	P	S04	
2	K001	2000	P	S01	
3	U051	1000	P	S01	
4	F021	500	P	S01	
5	F027	500	P	S01	
6	D002	100	P	S01	
7					
8	U242	100	P	S01	*
9	* THIS CODE WILL NOT BE USED AFTER JULY 15, 1985				
10					
11	**	NOT YET DETERMINED	P	T04	
12	** WASTEWATER FROM A SYSTEM THAT GENERATES K001				
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

EPA I.D. NO. (enter from page 1)												
S	D	0	0	7	0	2	7	5	4	3	3	T/A/E
											6	

FACILITY DRAWING

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

PHOTOGRAPHS

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).

FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)						LONGITUDE (degrees, minutes, & seconds)					
3	3	4	4	0	4	8	9	4	7	1	9
61	62	63	64	65	66	72	73	74	75	76	77

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.)			
3. STREET OR P.O. BOX		4. CITY OR TOWN		5. ST.		6. ZIP CODE	

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) Charles P. Brush, P.E., Program Manager for Hazardous Waste Affairs	B. SIGNATURE <i>Charles P. Brush</i>	C. DATE SIGNED 11 - 7 - 85
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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

SEE PLANT AND FACILITY PLAN VIEW ON
KOPPERS DWG W-GRE-B302A - PRIOR SUBMISSION

KOPPERS

Express Mail
Certified

April 12, 1985

Mississippi Department of
Natural Resources
Div. of Solid Waste Management
2380 Highway 80 West
Jackson, MS 39204

RE: Notification of Hazardous
Waste Activity
Form 8700-12

Dear Sir or Madam:

Please find enclosed a completed Notification of Hazardous Waste Activity Form for the Koppers Company, Inc. Chemical and Allied Products Plant located at Tie Plant, MS, EPA I.D. #MSD007027543.

Please note that in addition to the FO21, FO27 waste revisions have been made in this subsequent notification.

Please feel free to call the facility contact designated in this office should any questions arise in this submission.

Sincerely,

Thomas A. Marr
Thomas A. Marr, P. E.
Manager,
Environmental Regulatory Programs

TAM/CJV/jsw

Encls.

cc: R. Bartlow - W/Encl.
D. King - W/Encl.

U.S. EPA, Region IV - W/Encl. - Certified
Residuals Management Branch
345 Courtland St. N.E.
Atlanta, GA 30365

DIVISION OF SOLID WASTE

REVIEWED BY JH
DATE 4/23/85

COMMENTS copy forwarded to Jim
Scarborough and Nell Keever

John
~~D. King~~ Jim
File
No change needed on
HW DMS
Need to send copy to EPA
Route to Jim Scarborough &
Nell Keever.



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 20305
Jackson, Mississippi 39209
(601) 961-5000



November 20, 1986

FILED

CERTIFIED MAIL NO. P 283 765 422

Mr. Charles P. Brush, P.E.
Program Manager, Hazardous Waste Affairs
Koppers Company, Inc.
1940 Koppers Building
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

At its meeting held on Wednesday, November 19, 1986, the Mississippi Commission on Natural Resources considered certain evidence regarding your facility in Tie Plant, Mississippi. Enclosed is Commission Order No. 1146-86, which has been issued as a result of that consideration.

Your cooperation in carrying out the provisions of the enclosed order is encouraged. As you know, appeals can be taken in accordance with the law.

If you have any questions in this matter, please contact Mr. Caleb Dana at telephone #601/961-5171.

Sincerely,

Charlie L. Blalock
Executive Director

CLB:CHC:mh

Enclosure

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

VS.

ORDER NO. 1146 86

KOPPERS COMPANY, INC.
MSD007027543

RESPONDENT

ORDER

The above styled cause came on this date for consideration and the Commission, having heard and considered the same, finds as follows:

1.

The Respondent, Koppers Company, Inc., located in Tie Plant, Mississippi, owns and operates a wood preserving plant which generates and subsequently manages hazardous waste and, as such, is subject to the provisions of laws of this State governing the treatment, storage, and disposal of hazardous waste, the same appearing as Section 17-17-1, et. seq., and the rules and regulations of the Mississippi Commission on Natural Resources.

2.

Pursuant to Part 270 of the Mississippi Hazardous Waste Management Regulations and Amendment to Order No. 1040-86, the Respondent has been directed to fully characterize the hydrogeology of the Koppers Tie Plant facility and any plume of contamination that has entered the groundwater from the hazardous waste surface impoundment and the spray irrigation field.

3.

Premises considered, the Commission finds that the groundwater and hydrogeologic information resulting from field activities initiated by Koppers on November 1, 1986 must be submitted to the Bureau of Pollution Control.

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Respondent, shall comply with the following schedule on or before the dates specified:

OK
2/5/87
JH

1. On or before January 23, 1987, Koppers Company, Inc., must submit a comprehensive report of hydrogeologic work initiated in accordance with item three (3) of the schedule contained in Amendment to Order No. 1040-86.

Not
no longer applicable
JH 2/5/87

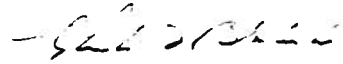
2. On or before February 12, 1987, Koppers Company, Inc., must submit a comprehensive work plan and schedule for completing the required activities to (1) define the plume of groundwater contamination from either the surface impoundment or the spray field, or to fully characterize the hydrogeology of the site, if such further work is needed, and (2) submit a complete Post-Closure Part B Application, including a corrective action plan, if necessary.

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall become final thirty (30) days after the date of rendition hereof, unless the Respondent, before the said thirty (30) days have elapsed, files a sworn petition with this Commission as provided by Section 49-17-41, Mississippi Code Annotated (1972) setting forth the grounds and reasons for said complaint and asking for a hearing thereon.

ORDERED AND ADJUDGED, this the 19th day of November, 1986, by the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY:


CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P.O. Box 20305
Jackson, Mississippi 39209
(601) 961-5000



October 10, 1986

FILE COPY

CERTIFIED MAIL NO. P 669 640 569

Mr. Charles P. Brush, P. E.
Program Manager, Hazardous Waste Affairs
Koppers Company, Inc.
1940 Koppers Building
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

In accordance with certain requirements of Commission Order No. 1040-86 issued by the Mississippi Commission on Natural Resources following a hearing held on August 26, 1986, regarding your hazardous waste facility located in Grenada County, Mississippi, we are enclosing an amendment thereto.

Your cooperation in carrying out the provisions of the enclosed order is encouraged. As you know, appeals can be taken in accordance with the law.

If you have any questions in this matter, please contact Mr. Caleb Dana at telephone #601/961-5171.

Sincerely,

Charlie L. Blalock
Executive Director

CLB:CHC:mh

Enclosure

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

VS.

KOPPERS COMPANY, INC.

AMENDMENT TO

ORDER NO. 1040-86

RESPONDENT

AMENDMENT

The above styled cause came on August 26th, 1986 for consideration and the Commission, having entered its Order No. 1040-86 providing for the establishment of an acceptable schedule of compliance being of the opinion that the requirements outlined in Commission Order No. 1040-86 issued on the 26th day of August, 1986, should be amended at such time as said schedule was developed, hereby causes this amendment to be herewith entered:

IT IS, THEREFORE, ORDERED that Koppers Company, Inc., shall comply with the following schedule on or before the dates specified:

- cleared 10/30/86
plan submitted on
10/15/86 was
accepted
GH*
1. On or before October 15, 1986, Koppers Company, Inc. must submit a comprehensive plan of study and a schedule for development and submittal of a complete post closure Part B permit application for the hazardous waste surface impoundment and spray irrigation field. The plan and schedule must be developed in accordance with the requirements of Section 270.14 and describe those activities necessary to fully characterize the hydrogeology of the Koppers Tie Plant facility and the plume of contamination that has entered the groundwater from the hazardous waste surface impoundment and the spray irrigation field.
- cleared 10/14/86
GH*
2. On or before October 15, 1986, Koppers Company, Inc. must meet with representatives of the Bureau of Pollution Control to discuss the comprehensive plan of study and schedule referred to in item number one above.
- cleared 10/30/86
GH*
3. On or before November 1, 1986, Koppers Company, Inc. must initiate field activities at the Tie Plant facility to fully characterize the hydrogeology of the site, in accordance with the requirements of Section 270.14 of the Mississippi Hazardous Waste Management Regulations. Specifically, Koppers must (1) begin installation of an



upgradient well that monitors the first aquifer and is unaffected by past practices at the site, in accordance with the requirements of Section 265.91 of the Mississippi Hazardous Waste Management Regulations, (2) begin installation of additional downgradient wells at or near the Koppers Company, Inc. legal (property) boundaries, (3) begin field activities that will fully characterize the uppermost aquifer and aquifers hydraulically interconnected beneath the facility, and (4) begin test borings that will fully characterize the hydrogeology of the site.

*Closed 2/3/87
Making hold 2/3/87
changing made to an
operating permit. The
inadequate closure plan
will be addressed as part
of operating permit application
2/9/87*

*Application submitted
12/4/86. Received on 12/5/86.
Under review for
completeness.*

GH 2/5/87

4. On or before November 15, 1986, Koppers Company, Inc. must submit a complete closure plan for the hazardous waste surface impoundment and spray irrigation field, in accordance with Part 265, Subpart G of the Mississippi Hazardous Waste Management Regulations. The plan must include a schedule that specifies the date that closure activities will begin, the total time required to close the facility, and the time required for intervening closure activities.
5. On or before December 1, 1986, Koppers Company, Inc. must submit a complete Part B permit application for storage of hazardous waste in containers, in accordance with the requirements of Part 270 of the Mississippi Hazardous Waste Management Regulations.

IT IS FURTHER ORDERED AND ADJUDGED that this amendment be attached to Commission Order No. 1040-86 and become a part thereof.

Approved, this the 9th day of October, 1986, for the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY:

Charlie L. Blalock
CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR



on 9/12/86. JH

FILE COPY

August 28, 1986

CERTIFIED MAIL NO. P 543 080 108

Mr. Charles Brush, Program Manager
Hazardous Waste Affairs
Koppers Company, Inc.
1940 Koppers Building
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

In action taken following a hearing on August 26, 1986, in the matter of Koppers Company, Inc., the Mississippi Commission on Natural Resources found Koppers Company, Inc. guilty of the alleged charges and assessed a total penalty of \$20,000 for the violations.

Please forward your check immediately for this amount to the Mississippi Commission on Natural Resources.

As you know, appeals can be taken in accordance with the Law.

If we can be of assistance to you in any way, please advise.

Very truly yours,

Charlie L. Blalock
Executive Director

CLB:JWH:els

Payment received Oct. 6, 1986.
JH

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

VS.

ORDER NO. 1040 86

KOPPERS COMPANY, INC.

RESPONDENT

ORDER

The above styled cause came on this date for hearing and the Commission, having heard and considered the same, finds as follows:

1.

On August 12, 1986, a written complaint was filed against Koppers Company, Inc. stating that Koppers Company, Inc. had (1) failed to identify the extent of the plume of contamination from the regulated unit, i.e., surface impoundment, as required by Mississippi Hazardous Waste Management Regulations 270.14 and 265.93; (2) failed to completely identify the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for such identification, as required by Mississippi Hazardous Waste Management Regulations 270.14 and outlined in the Bureau of Pollution Control's letter dated March 19, 1984; (3) failed to monitor groundwater around the regulated unit, i.e., surface impoundment, omitting the last quarterly analyses of calendar year 1985, as required by Mississippi Hazardous Waste Management Regulations 265.93; (4) failed to install an upgradient well that monitors the first aquifer and is unaffected by past practices at

the site, as required by Commission Order No. 705-84, as amended, and Mississippi Hazardous Waste Management Regulations 265.91; (5) failed to submit a complete Part B permit application as required by Commission Order No. 918-85 and Mississippi Hazardous Waste Management Regulations 270, i.e., Respondent did not provide sufficient information to determine the source of contamination in well R5, as outlined in the Bureau of Pollution Control's letter dated October 22, 1985.

2.

Koppers Company, Inc. did enter a plea of nolo contendere to the charges made against it in the above referenced complaint which plea is hereby accepted.

3.

Premises considered the Commission hereby assesses a monetary penalty of \$20,000 against Koppers Company, Inc. for the aforementioned acts.

IT IS FURTHER ORDERED AND ADJUDGED that upon the development of an adequate and satisfactory compliance schedule by the Bureau of Pollution Control, working in conjunction with representatives of Koppers Company, Inc., said compliance schedule shall be immediately made a part of this order as an amendment thereto.

This is a final order pursuant to Mississippi Code Section 49-17-41 and is conclusive unless the Order is appealed within 15 days after the adjournment of the meeting at which it was made. In exceptional cases, requests for modification of non-monetary provisions of this Order for good cause shown only may be made to the Commission on Natural Resources.

Appeal bond from this Order is set at \$500.00.

ORDERED AND ADJUDGED, this the 26th day of August, 1986, by
the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY: Charlie L. Blalock
CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P. O. Box 20305
Jackson, Mississippi 39209
(601) 961-5099



November 25, 1985

FILE COPY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Charles P. Brush, P. E.
Program Manager
Hazardous Waste Affairs
Koppers Company, Inc.
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Brush:

At its meeting held on Wednesday, November 20, 1985, the Mississippi Commission on Natural Resources considered certain evidence regarding your operation in Tie Plant, Mississippi. Enclosed is Commission Order No. 951-85, which has been issued as a result of that consideration.

Your cooperation in carrying out the provisions of the enclosed order is encouraged. As you know, appeals can be taken in accordance with the law.

If you have any questions in this matter, please contact Mr. Chuck Estes at telephone #961-5171.

Sincerely,

A handwritten signature in cursive script, appearing to read "Charlie L. Blalock".

Charlie L. Blalock
Executive Director

CLB:CHC:mh

Enclosure

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

ORDER NO. 951 85

VS.

KOPPERS COMPANY, INC.

RESPONDENT

ORDER

The above styled cause came on this date for consideration and the Commission, having heard and considered the same, finds as follows:

1.

The Respondent, Koppers Company, Inc., located in Tie Plant, Mississippi, owns and operates a wood preserving plant which generates and subsequently manages hazardous waste, and, as such is subject to the provisions of laws of this State governing the treatment, storage, and disposal of hazardous waste, the same appearing as Section 17-17-1, et. seq., and the rules and regulations of the Mississippi Commission on Natural Resources.

2.

The Respondent is currently storing hazardous waste in containers in excess of their interim status design capacity.

3.

Premises considered, the Commission finds that the Respondent must reduce the volume of hazardous waste stored in containers at the Tie Plant facility to five thousand gallons, the amount stated in their Part A interim status permit application.

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Respondent, Koppers Company, Inc., shall carry out the following activities on or before the dates specified:

On or before December 15, 1985, the volume of hazardous waste stored in containers at the Tie Plant facility must be reduced to five thousand gallons, the amount specified in the Part A interim status permit application.

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall become final thirty (30) days after the date of rendition hereof, unless the Respondent, before the said thirty (30) days have elapsed, files a sworn petition with this Commission as provided by Section 49-17-41, Mississippi Code Annotated (1972) setting forth the grounds and reasons for said complaint and asking for a hearing thereon.

ORDERED AND ADJUDGED, this the 20th day of November, 1985, by the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY: CLL. Blalock
CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR

BEFORE THE
MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

ORDER NO. 951-85

v.

KOPPERS COMPANY, INC.,

RESPONDENT

PETITION

Pursuant to Section 49-17-41, Mississippi Code Annotated (1972), Respondent, Koppers Company, Inc. ("Koppers"), by its undersigned attorney, respectfully requests a hearing on the subject Order, dated November 20, 1985, a copy of which is attached. The grounds for this request are as follows:

1. The Order alleges that Koppers is storing hazardous waste at its wood preserving plant located in Tie Plant, Mississippi ("plant") in containers in excess of the Part A interim status design capacity of the storage unit.

2. Although the Order does not identify the "hazardous waste," representatives of the Mississippi Department of Natural Resources ("DNR") have advised Koppers that the "hazardous waste" includes both (a) a sludge-like material that is generated in an oil-water separator ("oil" is used to describe the wood preserving medium; the preservatives are creosote or pentachlorophenol ("PCP") which are dissolved in oil) located at the end of the plant's wood preserving process and prior to its wastewater treatment system and (b) a hazardous waste that is generated off-site and used at the plant as a fuel.

3. With respect to the material described in paragraph 2 (a) above, the DNR, ~~reversing its prior position,~~ ^{not so 10/24/85} now contends that the oil-water separator material is the listed hazardous waste, K001, bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or PCP.

4. The oil-water separator material, however, does not result from the treatment of wood preserving process wastewaters and, therefore, cannot be classified as K001 waste.

5. In addition, the oil-water separator material is not ignitable, corrosive, reactive or toxic as those terms are defined in 40 CFR Part 261. Therefore, the material is not a characteristic hazardous waste.

6. In the alternative, if the oil-water separator material is considered to meet the description of the K001 listing, the material is not a "solid waste" and, consequently, not a "hazardous waste" under 40 CFR § 261.2 because it is being accumulated prior to legitimate recycling.)

7. Koppers has been evaluating various recycling alternatives for this material for several months. Recently, a pilot study of a TRACKER-Oil Recovery Services, Inc. patented filter screen demonstrated that this device is capable of removing dirt from the material. The oil (containing creosote or PCP) will be reused in the wood preserving process in the same manner as "new" oil is used. Koppers recently has completed the recycling of approximately 300 drums of oil-water separator material that had been accumulating at the plant.

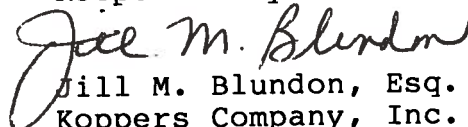
8. Accordingly, the oil-water separator material is used as an ingredient (oil) in an industrial process (wood preserving) to make a product (treated wood). The material is not reclaimed prior to use; it merely is separated from dirt and water. In the alternative, the material is being returned to the original process from which it is generated, without first being reclaimed. Therefore, pursuant to 40 CFR § 261.2 (e)(1)(i) and (iii), the oil-water separator material is not a solid waste when it is recycled.

9. With respect to the hazardous waste that is referenced in paragraph 2 (b) above, the waste can be stored on-site for less than 90 days before it is used as a fuel. Therefore, pursuant to 40 CFR §§ 266.35 (c) and 262.34, the plant is not required to store this waste in an interim status storage facility.

10. Therefore, neither the oil-water separator material nor the waste used as fuel should be included in the quantity of hazardous waste required to be stored in the Part A interim status storage facility. If this volume of waste is excluded from the Part A facility waste, Koppers has not exceeded, and is not exceeding, the storage capacity set forth in its Part A interim status permit application.

WHEREFORE, Respondent requests a hearing on all issues of fact and law raised by this Petition and further requests that the Order be stayed pending final resolution of this matter.

Respectfully submitted,


Jill M. Blundon, Esq.
Koppers Company, Inc.

Room 1400, Koppers Building
Pittsburgh, PA 15219
(412) 227-2414

COMMONWEALTH OF PENNSYLVANIA)
COUNTY OF ALLEGHENY) SS

Charles P. Brush, being duly sworn, hereby deposes and states that:

1. He is the Program Manager, Hazardous Waste Affairs, Environmental Resources Department of Koppers Company, Inc. ("Koppers").

2. In this position, he is familiar with the operations of Koppers' Tie Plant, Mississippi wood preserving plant.

3. He has read the foregoing Petition and the factual statements contained therein are true and correct to the best of his knowledge, information and belief.



Charles P. Brush

Sworn to and subscribed before
me this 18th day of
December, 1985.



Notary Public

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

RECEIVED

DEC 02 1985

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

Environmental Resources

COMPLAINANT

ORDER NO. 951 85

VS.

KOPPERS COMPANY, INC.

RESPONDENT

ORDER

The above styled cause came on this date for consideration and the Commission, having heard and considered the same, finds as follows:

1.

The Respondent, Koppers Company, Inc., located in Tie Plant, Mississippi, owns and operates a wood preserving plant which generates and subsequently manages hazardous waste, and, as such is

IT IS, THEREFORE, ORDERED AND ADJUDGED that the Respondent, Koppers Company, Inc., shall carry out the following activities on or before the dates specified:

On or before December 15, 1985, the volume of hazardous waste stored in containers at the Tie Plant facility must be reduced to five thousand gallons, the amount specified in the Part A interim status permit application.

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall become final thirty (30) days after the date of rendition hereof, unless the Respondent, before the said thirty (30) days have elapsed, files a sworn petition with this Commission as provided by Section 49-17-41, Mississippi Code Annotated (1972) setting forth the grounds and reasons for said complaint and asking for a hearing thereon.

ORDERED AND ADJUDGED, this the 20th day of November, 1985, by the Mississippi Commission on Natural Resources.

MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES,

COMPLAINANT

ORDER NO. 951-85

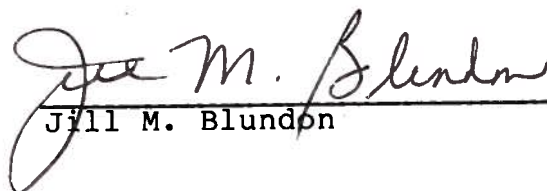
v.

KOPPERS COMPANY, INC.,

RESPONDENT

PETITION FOR ADMISSION

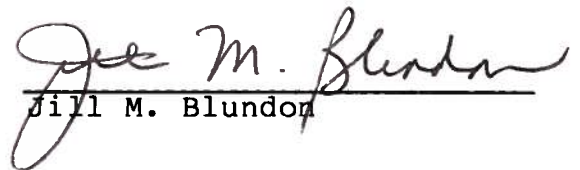
Jill M. Blundon, an attorney for Koppers Company, Inc. ("Koppers"), admitted to practice in the Commonwealth of Pennsylvania, hereby respectfully petitions this Commission for admission Pro hac vice in the above-captioned proceeding only.


Jill M. Blundon

CERTIFICATE OF SERVICE

I hereby certify that I have caused a copy of the foregoing
Petitions to be served upon the following person by depositing
same in the U. S. Mail, postage pre-paid, on December , 1985:

George L. Williamson
Special Assistant Attorney General
P. O. Box 220
Jackson, Mississippi 39205


Jill M. Blundon



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P. O. Box 20305
Jackson, Mississippi 39209
(601) 961-5099



September 19, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs
Koppers Company, Inc.
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

At its meeting held on Wednesday, September 18, 1985, the Mississippi Commission on Natural Resources considered certain evidence regarding your operation in Tie Plant, Mississippi. Enclosed is Commission Order No. 913-85, which has been issued as a result of that consideration.

Your cooperation in carrying out the provisions of the enclosed order is encouraged. As you know, appeals can be taken in accordance with the law.

If you have any questions in this matter, please contact Mr. Jack McMillan at telephone #961-5171.

Sincerely,

A handwritten signature in cursive script, appearing to read "Charlie L. Blalock".

Charlie L. Blalock
Executive Director

CLB:CHC:mh

Enclosure

BEFORE THE MISSISSIPPI COMMISSION ON NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

IN THE MATTER OF:

MISSISSIPPI COMMISSION ON
NATURAL RESOURCES

COMPLAINANT

VS.

ORDER NO. 918 85

KOPPERS COMPANY, INC.

RESPONDENT

ORDER

The above styled cause came on this date for consideration and the Commission, having heard and considered the same, finds as follows:

1.

The Respondent, Koppers Company, Inc., located in Tie Plant, Mississippi, owns and operates a wood preserving plant which generates and subsequently manages hazardous waste, and, as such is subject to the provisions of laws of this State governing the treatment, storage, and disposal of hazardous waste, the same appearing as Section 17-17-1, et. seq., and the rules and regulations of the Mississippi Commission on Natural Resources.

2.

The Respondent has submitted a Part B application for its Grenada County, Mississippi facility as required by Part 270 of the Mississippi Hazardous Waste Management Regulations.

3.

The Respondent has completed a groundwater assessment as required by an amendment to Commission Order No. 705-84.

4.

Statutory requirements mandate submission of a complete permit application by November 8, 1985.

5.

Premises considered, the Commission finds that the Respondent must provide additional information to be included in their Part B application, including spray field irrigation information, a groundwater assessment report, a corrective action plan or ACL proposal, and updated cost estimates.

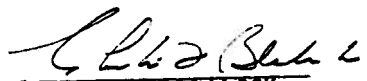
IT IS, THEREFORE, ORDERED AND ADJUDGED that the Respondent, Koppers Company, Inc., shall carry out the following activities on or before the dates specified:

1. On or before October 1, 1985, submit a complete groundwater assessment report.
2. On or before November 8, 1985, sample the monitoring wells around the spray field for groundwater quality parameters, primary drinking water parameters, and Appendix VII constituents, and submit the results to the Department of Natural Resources by January 8, 1986.
3. On or before November 8, 1985, submit an updated financial document that includes spray field closure and surface impoundment post-closure.
4. On or before November 8, 1985, submit a complete Part B permit application that includes the surface impoundment, the spray field, and a draft corrective action plan or ACL proposal.

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall become final thirty (30) days after the date of rendition hereof, unless the Respondent, before the said thirty (30) days have elapsed, files a sworn petition with this Commission as provided by Section 49-17-41, Mississippi Code Annotated (1972) setting forth the grounds and reasons for said complaint and asking for a hearing thereon.

ORDERED AND ADJUDGED, this the 18th day of September, 1985,
by the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY: 
CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR

Review of Koppers Closure
Plan for Surface Impoundment
and Spray Field, as Submitted
on Nov. 14, 1986. Reviewed by
Jim Harbage.

Reviewer Findings/Comments

I. GENERAL CLOSURE REQUIREMENTS
A-J Steps in the Closure Process

Regulatory Requirement	Regulatory Citation	Evaluation Criteria
Identification of the steps necessary to perform partial closure (i.e., closure of a single hazardous waste management unit) and/or final closure of the facility (i.e., closure of the entire facility).	265.112(b)(1) and (2)	The steps required to close must be broken down in sufficient detail such that: 1) The closure process is understandable; 2) A closure schedule can be developed; and 3) Quantities and unit prices can be developed for closure cost estimation. The final closure plan must identify the steps required to close the facility at its maximum extent of operation. The partial closure plan must identify the steps necessary to close a single hazardous waste management unit. The specific steps required to close a unit or facility should be evaluated in Sections III through XI of this checklist.
Nothing in 265.112 shall preclude the owner/operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.	265.112(e)	The owner/operator is permitted to remove hazardous wastes and decontaminate or dismantle equipment before a closure plan is approved under 265 providing that he perform these activities per the 265 closure regulations. Since these previous activities must be approved during the closure plan approval process, the owner/operator must describe these activities in his closure plan in enough detail to allow a reviewer to determine their adequacy and consistency with the 265 closure regulations.

initial comment:

On page one of the closure plan, reference is made to 265.112.25(a). This should be cited as 265.112(a).

References should be to Part 265 closure regulations.

Page 444.

Comments Re: Steps Required to Close

1. Step Three - Dewatering
Half of the water (approximately 350,000 gal) will be pumped to the spray field at a rate of 10,000 gpd. Insufficient information is provided on (a) the maximum hydraulic loading capacity of the spray field + (b) the effect of this loading rate on the vegetation and the accumulation/mobilization of HCOI constituents. No water balance information is provided.
2. Step Five - Removal of Oils and Sludges
Fuel oils may be blended with the sludges + oils to adjust their properties. It is not clear whether such blending will occur in the impoundment, in rail tank cars, or temporary holding tanks. More information is needed.
3. Step Six - Oil recovery by Centrifuge
Oil will be recovered by centrifuge if quantity warrants. No detailed information on this process is provided.
4. Step Seven - Use of Oil/Sludge as Fuel
Oil/sludge with HHV > 5000 BTU/lb. will be used as fuel in the plant boiler.

Storage of K001 on-site prior to use as a fuel will require a Part B permit if storage exceeds 90 days. This aspect is not addressed.

5. Step Eight - Processing of Sludges
Sludges with a HHV $\leq$ 5000 BTU/lb. will be processed through a filter press to remove free liquids. Dry filter cake will be sent off-site to a secure disposal facility. No information on this process is provided.
6. Step Nine - Washing of Sludges/Soils
Sludges with FOG $> 3\%$ may be washed to reduce FOG. No detailed information on the process (or where it will occur) is provided.
7. Step Ten - In-situ Treatment of Sludge/Soils
Sludges with FOG $< 3\%$ will be treated in-situ. No treatability study or technical report that demonstrates the feasibility of in-situ biological treatment of K001-contaminated sludges is provided. It is
8. Step Eleven - Characterization Study for In-situ Biological Treatment

A characterization study will be performed to determine nutrient requirements, length of time required for degradation, etc.. How long does a characterization study take? What parameters are measured? How is the study conducted?

9. Step Sixteen - Clean Closure
Notification that the unit has been decontaminated must include certificate of closure, notice to local land authority, & notice in deed to property.

Comments Re: Closure Schedule

1. Since the proposed closure plan is contingent on installation of a pretreatment facility, the plan should have included a schedule for design and construction of the pretreatment facility, including milestone dates for completion of major activities.
2. The plan states that Koppers will initiate closure within 30 days after November 8, 1988, in the event that final discharge arrangements with the POTW are not made by then. However, no explanation is ~~not~~ provided regarding how closure

would proceed under those circumstances

(for one surface impoundment)

Closure cost estimates[^] of \$626,380 for clean closure and \$668,620 for "dirty" closure appear to be more than adequate. Compares favorably with IP closure cost estimate of \$986,000 for four surface impoundments and four sludge pits.

for the spray field

Closure cost estimate[^] is based on the presumption that there is no appreciable amount of ~~KOO~~ sludge on the field, i.e., that contamination is limited to lightly contaminated soils (KOO constituents amenable to biological degradation). Closure cost estimate of \$45,700 appears reasonable. However, in the event that ND levels of KOO constituents could not be obtained, ~~then the spray field would have to be closed as a landfill, i.e.,~~ clay cap, drainage layer, ~~topsoil~~, vegetative cover. ~~This type of closure would dramatically increase the cost of closure.~~ Keppers would have to remove contaminated soils and/or place a final cover over the field. This type of closure could significantly increase the closure cost.

I. GENERAL CLOSURE REQUIREMENTS

A-2 Maximum Inventory of Wastes

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous waste, identification of and the type(s) of off-site hazardous waste management unit(s) to be used, if applicable.	§265.112(b)(3)	The maximum inventory generally can be assumed to be the capacity of the unit. Attempts to identify maximum inventory as less than full capacity must be examined carefully for validity. Calculations showing the derivation of maximum inventory must be provided by the applicant. The description of how the hazardous waste will be managed at closure should be evaluated in Sections III through XI of this checklist.	OK Calculations provided for surface impoundment. Level of contamination is spray field soils to be determined upon initiation of closure.

I. GENERAL CLOSURE REQUIREMENTS

A-3 Closure Schedule

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
A schedule for closure of each hazardous waste management unit and for final closure of the facility.	265.112(b)(6)	Closure schedule must indicate the total time required for closure, and be broken down sufficiently to allow tracking of the progress of closure. In general, the breakdown should correspond to the steps required to close as described in the closure plan. Unless an exemption is granted, the waste inventory must be treated, removed from the site, or disposed on-site within 90 days after receiving final volume of waste, or within 90 days after approval of the closure plan, whichever is later. Closure must be completed within 180 days after receipt of the final volume of waste, or within 180 days after approval of the closure plan, whichever is later. Any request for extension of closure time must be substantiated by the demonstrations required by §§265.113(a)(1) (for the 90 day period) and 265.113(b)(1) (for the 180 day period).	① Schedule for development of pretreatment facility not included. ② Schedule indicates total time for major activities. Could correspond better with narrative description of closure activities. Compares favorably with IP schedule in degree of detail. See comments below.*
Time allowed for closure activities.	265.113		

Estimate of expected year of final closure.	265.112(b)(7)	The closure plan must include an estimate of the expected year of final closure for: (1) facilities that use trust funds to demonstrate financial assurance under §§265.143 or 265.145 and whose remaining operating life is less than twenty years, and (2) facilities without approved closure plans. * ① Removal of waste will take longer than 90 days, i.e., 30 days for settling, 90 days for dewatering, 90 days for removal of pumpable pool. ② Closure activities will take > 180 days to complete regardless of whether or not we approve in situ biological treatment. (750 days with in situ bio. treatment; 390 days without in situ treatment. IP schedule allows 480 days for closure (total time), including 120 days for construction of	Reviewer expects to begin closure before Nov. 8, 1988. Closure plan is contingent on development of a pretreatment facility. No specific date or schedule is provided for development of pretreatment facility.
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I. GENERAL CLOSURE REQUIREMENTS

B. Closure Cost Estimate

Regulatory Requirement

A cost estimate for closure.

Regulatory Citation

265.142

Evaluation Criteria

The estimated closure cost must correspond to the point in the facility's operating life when closure would be most costly. This generally corresponds to the maximum extent of the operation and maximum waste inventory.

The closure cost estimate must be based on the costs to the owner/operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator.

The cost estimate should be based upon quantities and unit costs for materials and labor (including supervision) as provided by a third party. Closure costs are best understood when they are broken down to parallel the steps required to close given in the description of closure.

The owner/operator may use costs for on-site disposal if he can demonstrate that on-site disposal capacity will exist at all times over the life of the facility.

The closure cost must be adjusted for inflation annually according to the formula specified in 265.142(b).

The closure cost estimate may not incorporate any salvage value realized from the sale of hazardous wastes, facility structures or equipment, land, or other facility assets at the time of closure.

The cost estimate may not assume a zero cost for handling of hazardous wastes with potential economic value.

Reviewer Findings/Comments

OK

OK

OK

closure cost estimate is based on both off-site disposal of sludge and in-site incineration.

OK

closure cost estimate for on-site incineration is reasonable, provided that the closure is a minor.

closure cost estimate for spray field appears reasonable, provided that the closure is a minor.

1. GENERAL CLOSURE REQUIREMENTS

C. Amendment of Closure Plan

<u>Regulatory Requirement</u>	<u>Regulatory Citation</u>	<u>Evaluation Criteria</u>	<u>Reviewer Findings/Comments</u>
Amendment of the closure plan.	265.112(c)	The plan must specify that if an unexpected event occurs during closure which requires a modification to the approved closure plan, the owner/operator will amend the closure plan no later than 10 days after the unexpected event. This provision also applies to owners/operators of surface impoundments and waste piles who intended to remove wastes at closure, but found they must close as landfills per 265.310.	OK closure plan includes a contingency closure plan in the event that it is not practical to remove all contaminated soil.

I. GENERAL CLOSURE REQUIREMENTS

D. Revisions to Cost Estimate

<u>Regulatory Requirement</u>	<u>Regulatory Citation</u>	<u>Evaluation Criteria</u>	<u>Reviewer Findings/Comments</u>
Revisions to the closure cost estimate.	265.142(c)	The plan must specify that the closure cost estimate will be revised no later than 30 days after the Regional Administrator has approved a modification to a closure plan which has caused a subsequent increase in the cost of closure.	OK. closure cost estimate includes cost for both clean and non-clean dis.

I. GENERAL CLOSURE REQUIREMENTS

E. Certification of Closure

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
Certification that the hazardous waste management unit or facility has been closed in accordance with the specifications in the approved closure plan.	5265.115	The plan must specify that within 60 days of completion of closure of each surface impoundment, waste pile, land treatment, or landfill unit, and within 60 days of completion of final closure (of the entire facility), the owner/operator will submit certification that the unit or facility, as applicable, has been closed in accordance with the approved closure plan.	Narrative does not cover this; however, schedule indicates completion of certification within 30 days after closure.
		The certification must be signed by the owner/operator and an independent registered professional engineer. In the case of land treatment units, a certification may be signed by an independent qualified soil scientist in lieu of the engineer.	Not specified in narrative.
		The plan must specify that documentation supporting the engineer certification will be furnished upon request until the owner/operator has been released from the financial assurance requirements.	Not specified in narrative.

Note: IP plan describes in detail a testing and verification program. Koppers plan does not.

I. GENERAL CLOSURE REQUIREMENTS

P. Survey Plat

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
Submission of survey plat.	S765.116	The closure plan must state that the survey plat will be submitted, no later than the submission of the closure certification, to the local zoning authority or the authority with jurisdiction over local land use, and to the Regional Administrator. The survey plat must indicate the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently displayed benchmarks. The plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority or authority with jurisdiction, must contain a note, prominently displayed, stating the obligation to restrict disturbance of the hazardous waste disposal unit.	Plan says plat will be submitted. <i>after closure is complete to A. 6 *</i> Not specified. Not specified.
			* In addition, 215.19 requires ^①recording of the type and quantity of hazardous waste (within 60 days of certification of closure), and ^②notification in deed to property (also within 60 days), and certification that notation has been recorded in the deed. Koppers plan covers ① & ② but not within required time frame. Plan does not cover item ③.

II. GENERAL POST-CLOSURE REQUIREMENTS

A. Post-Closure Care and Use of Property

<u>Regulatory Requirement</u>	<u>Regulatory Citation</u>	<u>Evaluation Criteria</u>	<u>Reviewer Findings/Comments</u>
Post-closure care begins after completion of closure of the unit and continues for 30 years after that date.	265.117	Post-closure monitoring and maintenance activities, as specified in the post-closure plan (see 11.N.1), must continue for a period of 30 years beyond the closure of the unit. The Regional Administrator may: - o Shorten the post-closure care period. - o Lengthen the post-closure care period. - o Require continuation of any security requirements of 265.14 during part or all of the post-closure period. - o Allow disturbance of the disposal unit's cover, liners, other components of the containment system or function of the monitoring systems in order to protect human health and environment. Otherwise, post-closure use of property must not disturb the disposal site cover, etc.	OK Post-closure care period is fixed at 30 years period.

B-1 Monitoring Activities

<u>Regulatory Requirement</u>	<u>Regulatory Citation</u>	<u>Evaluation Criteria</u>	<u>Reviewer Findings/Comments</u>
A description of the planned monitoring activities and frequencies at which they will be performed to comply with Subparts F, K, L, M, and N of Part 265 during the post-closure care period.	55265.117(a)(1), 265.118(c)(1)	The post-closure plan must specify a monitoring plan for the 30 year period after closure of a hazardous waste unit. Monitoring includes, where applicable: o Groundwater monitoring (see Sections VII and VIII); o Soil core monitoring (see Section VIII); o Monitoring of leachate collection/detection system (Section VII); and o Gas ventilation system (see Section VII).	 OK NA NA Additional information provided regarding ventilation will be forwarded.

* Revised plan should state that these items are not "eligible"

IV. GENERAL POST-CLOSURE REQUIREMENTS

B-2 Maintenance Activities

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
A description of the planned maintenance activities and frequencies at which they will be performed to ensure: (1) integrity of the cap and final cover or other containment systems in accordance with Subparts K, L, M, and N of Part 265; (2) the function of the monitoring equipment in accordance with the requirements of Subparts F, K, L, M, and N of Part 265.	§§265.117(a)(1), 265.118(c)(2)	The post-closure plan must specify maintenance activities and frequencies for the 30-year period after closure of a hazardous waste unit. Maintenance activities include maintenance of the following, where applicable: - o Monitoring equipment; OK - o Cap, final cover, and other containment systems; OK - o Access restrictions; OK - o Run-on/run-off control devices; and OK - o Leachate collection/detection equipment. OK	OK - Period plan should state that this item is NA?
The post-closure plan also should contain an inspection schedule to be used to determine the proper maintenance response.		(See Sections VII and VIII for a description of the above activities.)	

11. GENERAL POST-CLOSURE REQUIREMENTS

A-1 Post-Closure Contact

<u>Regulatory Requirement</u>	<u>Regulatory Citation</u>	<u>Evaluation Criteria</u>
The name, address, and phone number of the person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.	265.118(c)(3)	The post-closure plan must include the name, address, and telephone number of a person or office to contact about the hazardous waste disposal unit or facility during the post-closure care period.

Reviewer Findings/Comments

Plan does not include this information

II. GENERAL POST-CLOSURE REQUIREMENTS

C. Post-Closure Cost Estimate

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
in estimate of the annual cost of post-closure monitoring and maintenance.	265.144	The cost estimate must provide an estimated annual cost for monitoring, inspection and maintenance activities as specified in the post-closure plan. The post-closure cost estimate must be based on the costs to the owner/operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner/operator. The post-closure care costs should be based on quantities and unit prices for materials and labor (including supervision) as provided by a third party. The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care. During the active life of the facility (including the closure period), the post-closure cost estimate must be adjusted annually for inflation according to 5265.144(b).	OK OK <i>Review plan should state the cost estimate will be revised annually.</i>

II. GENERAL POST-CLOSURE REQUIREMENTS

D. Amendment of Post-Closure Plan

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
Amendment of the post-closure plan.	§265.118(d)	The plan must state that if an unexpected event occurs which affects the post-closure plan, the owner/operator will submit a modified plan within 60 days of the event. If the owner/operator of a waste pile or surface impoundment intended to remove all hazardous wastes at closure, but finds he must close as a landfill per §265.310, then he must submit a post-closure plan within 90 days of determination that the unit must be closed as a landfill.	<i>see above and specifically state this</i> <i>Post closure plan is comparable to LP plan.</i>

II. GENERAL POST-CLOSURE REQUIREMENTS

F. Revisions to Post-Closure Cost Estimate

<u>Regulatory Requirement</u>	<u>Regulatory Citation</u>	<u>Evaluation Criteria</u>	<u>Reviewer Findings/Comments</u>
Revisions to the post-closure cost estimate.	265.144(c)	The plan must state that the post-closure cost estimate will be revised no later than 10 days after the Regional Administrator has approved a modification to a post-closure plan which has caused a subsequent increase in the cost of post-closure activities.	<i>Plan doesn't specify state this.</i>

II. GENERAL POST-CLOSURE REQUIREMENTS

F. Post-Closure Notices

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
Post-closure notices.	265.119(a) and (b)	The plan must specify that no later than 60 days after certification of closure of each hazardous waste disposal unit, the owner/operator will submit to the local zoning authority, or authority with jurisdiction of local land use, and the Regional Administrator, a record of the type, quantity and location of hazardous wastes disposed in each cell or other disposal unit, including those wastes disposed before January 12, 1981. The plan must state that within 60 days of certification of closure of each hazardous waste disposal unit and within 60 days of certification of closure of the last disposal unit, the owner/operator will: A) Place a notation in the deed that: 1) The land has been used to manage hazardous waste; 2) Its use is restricted under 40 CFR Subpart G; and 3) The survey plat and record of waste disposal required by §§265.116 and 265.119(a) have been filed with the local zoning authority or the authority with jurisdiction over local land use and with the Regional Administrator; and B) Submit, to the Regional Administrator, a signed certification specifying that the notation in the deed has been recorded per §265.119(b)(1).	
Removal of wastes by owner/operator or subsequent owner.	265.119(c)	The owner/operator must state in the plan that the plan will be amended if removal of wastes from the disposal unit is desired.	See page 8.

II. GENERAL POST-CLOSURE REQUIREMENTS

G. Certification of Post-Closure

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
Certification that the post-closure care period for the disposal unit was performed in accordance with the specifications of the approved post-closure plan.	265.120	The plan must state that the owner/operator will submit, upon completion of the post-closure care period for each disposal unit, a certification that the post-closure care period for the unit was performed in accordance with the approved post-closure plan. The certification must be signed by the owner/operator and an independent certified registered professional engineer. Documentation supporting the engineer certification must be furnished upon request until owner/operator has been released from the financial assurance requirements under 265.145(h).	? <i>This is not a plan - Should be address post-closure provide application.</i>

VI. SURFACE IMPOUNDMENTS

A Closure By Removal

A-1 Waste Removal

Reviewer Findings/Comments

Evaluation Criteria

Regulatory Citation

Regulatory Requirement

The closure plan must provide a detailed description of how the hazardous wastes will be removed from the surface impoundment. The plan should address the following:

265.112(b)(3)

A description of the methods for removing, transporting, treating, or disposal of all hazardous wastes and identification of and the type(s) of off-site hazardous waste management unit(s) to be used.

Refer to page one for more specific comments, refer to page one

o Description of any processing of the hazardous waste (e.g., stabilization) prior to removal;

Description of processing alternatives is included but not via incineration

o Method of waste removal; *needs clarification*

o Special handling procedures (such as those for address under chemical & physical analyses

o Method of transporting wastes;

o Identification and description of off-site hazardous waste management unit(s);

Not specifically addressed. However material is rather than particulate matter. Low potential for wind dispersal.

o Method of controlling wind dispersal during removal;

o Procedures for controlling run-on and run-off from surface impoundment; and

o Procedures for protection of surface water and groundwater sources.

Not specifically addressed. Run-on is controlled via freeboard.

See above regarding removal of waste inventory from the impoundment. Refer to the next page regarding removal of waste residues and contaminated materials/equipment.

Not specifically addressed. Protection of surface water via cover. Protection of gw via monitoring well system.

265.228(a)

A detailed description of other activities necessary during the partial and final closure period to ensure that all partial closures and final closures satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control.

At closure, the owner or operator may elect to remove from the impoundment standing liquids, waste and waste residues, the liner (if any), and underlying and surrounding contaminated soil.

See attached comments re: description of processing & method of waste removal.

VI. SURFACE IMPOUNDMENTS

A Closure By Removal

A-2 Removal/Decontamination of Waste Residues and Contaminated Materials/Equipment

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure.	265.112(b)(4)	The closure plan must provide a detailed plan for removal of the following: - o Waste residues; <i>See comments below</i> - o Containment system components (if applicable); <i>OK</i> - o Contaminated subsoils. <i>Soils treated in situ.</i>	
		The plan should address the following:	
		- o Description of any processing of the waste residues (e.g., stabilization prior to removal); <i>needs description.</i> - o Method of residue and contaminated material removal; <i>OK</i> - o Method of transporting wastes; <i>OK</i> - o Identification and description of off-site hazardous waste management units; <i>OK</i>	<i>(See page 27.)</i>
A detailed description of other activities necessary during the partial and final closure period to ensure that all partial closures and final closures satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control.	265.112(b)(5)	- o Method of controlling wind dispersal during removal; - o Procedures for controlling run-on and run-off from the surface impoundment area; and - o Procedures for protection of surface water and groundwater sources.	<i>See comments page 27.</i>

VI. SURFACE IMPOUNDMENTS

A Closure By Removal

A-2 Removal/Decontamination of Waste Residues and Contaminated Materials/Equipment

(Continued)

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
A description of the methods for sampling and testing surrounding soils and criteria for determining the extent of decontamination.	265.112(h)(4)	The plan also must provide a testing program to determine when the site is clean. The testing program must include: - OK ☐ Sampling procedures, including locations and frequency; - OK ☐ Parameters to be tested for, including a justification of the parameters selected; - OK ☐ Test or analytical procedures to be used (only methods from SW-846 or methods approved under §260.21 are acceptable); and - OK ☐ A detailed discussion of the criteria to be used to evaluate test results in order to determine the site is clean. If the waste tested for is a characteristic waste, the site should be cleaned until the sampled materials no longer exhibit the characteristic; for FP Toxic wastes, though, the level should be background or applicable drinking water standards. For a listed waste or constituent, the site should be cleaned until analytical procedures can no longer detect the waste or constituent in the sample or the sample shows background levels of waste or constituent.	Parameters are Kool. Background levels will be established.

[Note: If groundwater monitoring data show groundwater contamination, the current policy will not allow "clean closure," and the unit must be closed as a landfill.]

The closure plan must provide a detailed plan for removal and disposal or decontamination of operating equipment used during the active life of the facility, and equipment used during closure.

265.114

All contaminated equipment, structures, and soils must be properly cleaned or decontaminated.

VI. SURFACE IMPOUNDMENTS

A Closure By Removal

A-2 Removal/Decontamination of Waste Residues and Contaminated Materials/Equipment (Continued)

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
All contaminated equipment, structures, and soils must be properly disposed or decontaminated.	265.114	For equipment or structures that will be disposed, the following must be provided: - o List of equipment; - o Method of transporting wastes; - o Identification and description of off-site hazardous waste management unit(s); and - o Criteria to be used during closure to determine if any equipment originally listed for decontamination will be disposed of instead.	
A description of the criteria for determining the extent of decontamination.	265.112(h)(4)	For equipment or structures that are to be decontaminated, the following must be provided: - o Method of decontamination; - o Procedures to protect the environment during decontamination (for example, how would wash water be collected); - o Method of removing wash waters and transporting them to off-site waste management unit(s); - o Identification and description of the off-site waste management unit(s); and - o Testing procedures, sampling methods and frequencies, and criteria and parameters to be used to judge when decontamination is complete.	Plan should specify how equipment will be decontaminated, e.g., high pressure water. Plan should specify how wash water will be collected.

* Plan provides for disposal or, alternately, decontamination of equipment.

VI. SURFACE IMPOUNDMENTS

A. Closure as a Landfill

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
If the waste and contaminated material is not removed at closure, then the facility must be closed as a landfill. If necessary to support the final cover the owner or operator must treat remaining liquids, residues, and soils by removal of liquids, drying, or other means.	§265.228(c)	The closure plan must provide a detailed plan for removal or treatment of any wastes or contaminated materials to provide an adequate foundation for the cover. (Final cover is discussed in Section VII.A.) The plan must address the following issues, as applicable: - o For materials that are removed, address the items contained in Section VI, A-1; - o Method stabilization or solidification of liquid and sludges left in-place; - o Procedures and equipment to be used; - o Procedures for equipment decontamination as per Section VI, A-1; - o Procedures for protection of surface water and groundwater sources during the work; - o Method of controlling wind dispersal of the materials; and - o Special handling procedures (such as for ignitable or reactive wastes). The plan also must indicate any material testing procedures which will be required to assure adequate support for the cover is supplied by the waste material. The testing program must include: - o Sampling procedures, including frequency; - o Parameters to be tested for, including a justification of the parameters selected;	Waste will be removed + recycled or disposed of. Soils will be treated in-situ biologically. Materials will be placed in 6-8" lifts + compacted to 95% Standard Proctor. Compaction Test will be used. Lifts should not exceed 6" acc. to KERRA-1974 guidance document on landfill design (7/82).
	NA		
	NA		
	NA		

VI. SURFACE IMPROVEMENTS

B. Closure as a Landfill
(Continued)

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
	NA	o Test or analytical procedures to be used, including copies of any methods which are not standard test methods; and	
	NA	o A detailed discussion of the criteria to be used to evaluate the test results.	
	NA	Finally, the closure plan must include calculations and data that demonstrate that the final cover will have sufficient support provided by the waste material (with or without stabilization or solidification as applicable).	No waste will be left in place.
		Documentation such as checklists or supporting calculations must be included in the record that the engineering calculations have been technically reviewed and are approved.	

VII. LANDFILLS

A. Closure

A-1 Final Cover Design and Construction

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
(a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:	5265.310(a)	The EPA recommended cover should consist of the following (from bottom to top):	
(1) Provide long-term minimization of migration of liquids through the closed landfill;		OK o A two-foot-thick soil layer having a permeability of 1 x 10 ⁻⁷ cm/sec or less,	
(2) Function with minimum maintenance;		NO o A 20 mil or thicker synthetic liner, No mention of syn. liner,	
(3) Promote drainage and minimize erosion or abrasion of the cover;		NO o A 12-inch-thick drainage layer, " " " drainage layer.	
(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and		NO o A two-foot-thick soil layer, and Plan specifies 18" soil layer.	
(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoil present.		OK o A vegetation crop.	
		The slope of the final cover surface should be at least 3%.	Top slope not specified. Bottom slope of 20% is in accord with draft RRR. (Reference documentation for design (1/82).
		The detailed description and drawings of the cover should include such items as applicable:	
		o Drawings showing overall plan view of cover with dimensions and cross-sections showing slopes, layers, and thicknesses;	
		NO o The name, species, and variety of the cover crop;	
		NO o Strength, thickness, brand name, and manufacturer of synthetic liner;	
		NO o Description of drainage layer;	
		OK? o Characteristics, thickness, permeability of low permeable soil layer;	spec. Description - No mention of spec.
		NA o Potential settlement of the cover;	Closure plan should either state that these items are NA or else discuss them.
		NA o Potential for gas generation;	

of closing dirty, then drainage layer can be required. (McLeod)

VII. LANDFILLS

A. Closure

A-1 Final Cover Design and Construction
(Continued)

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
		NA o Effects of freeze-thaw cycles on the cover; ? o Material specifications for all the components of the cover system; and ? o Construction specifications for placing the cover.	No detailed specs. IP plan does not specify materials or construction specs. However, IP plan does indicate testing & installation program. (See attached table 4.1)
		A detailed construction inspection program must be included which describes: OK o Qualifications necessary for the inspectors; NO o Test procedures to be used indicating acceptance criteria, sampling procedures and frequency, and testing methods; NO o Recordkeeping procedures; and NO o Basic duties of the inspectors.	No calculations. No mention of post-mortem drainage ditch.
		Also included must be detailed engineering calculations addressing: NO o Erosion of the cover soils, NO o Free drainage of precipitation off of the cover, NO o Free drainage of the drainage layer, and NO o Potential of clogging of the drainage area.	Soil loss equation & HELP model not required. (McCord) (Both are in IP plan.)

VII. LANDFILLS

A. Closure

A-1 Final Cover Design and Construction
(Continued)

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
		Applicants are not required to use the recommended cover; therefore some plans will specify covers that are different than the one described above.	
		In cases where a cover design other than the recommended cover is used, the record must contain detailed engineering calculations which address:	
	NO	o Long-term minimization of liquids through the closed landfill	
	NO	o A demonstration that the permeability of the cover equals or is less than that of the bottom liner system or natural subsoils present.	
		Documentation such as checklists or supporting engineering calculations must be included in the record.	

VII. LANDFILLS

A. Closure

A-2 Decontamination or Disposal of Equipment

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
All contaminated equipment, structures, and soils must be properly disposed or decontaminated.	265.114	The closure plan must provide a detailed plan for removal and disposal or decontamination of operating equipment used during the active life of the facility and equipment used during closure. For equipment or structures that will be disposed, the following must be provided: - o List of equipment; - o Method of transporting wastes; - o Identification and description of off-site hazardous waste management unit(s); and - o Criteria to be used during closure to determine if any equipment originally listed for decontamination will be disposed of instead. For equipment or structures that are to be decontaminated, the following must be provided: - o Method of decontamination; - o Procedures to protect the environment during decontamination (for example, how would wash water be collected); - o Method of removing wash waters and transporting them to off-site waste management unit(s); - o Identification and description of the off-site waste management unit(s); and - o Testing procedures, sampling methods and frequencies, and criteria and parameters to be used to judge when decontamination is complete.	See pg. 32.
A description of the criteria for determining the extent of decontamination.	265.112(b)(4)		

VII. LANDFILLS

A. Closure

A-3 Other Activities During the Closure Period

Regulatory Citation	Regulatory Requirement	Evaluation Criteria	Reviewer Findings/Comments
§265.112(b)(5)	A detailed description of other activities necessary during the partial and final closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and run-on and run-off control.	The closure plan must describe plans for the following during the closure period: NO o groundwater monitoring; <i>Not specifically addressed for closure period.</i> NA o leachate collection and removal (if applicable); and NA o run-on and run-off control.	Plan should state that these items are NA.

VII. LANDFILLS

B. Post-Closure

B-1 Maintenance and Monitoring Requirements

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
(b) After final closure, the owner or operator must comply with all post-closure requirements contained in §§265.117-265.120 including maintenance and monitoring throughout the post-closure care period. The owner or operator must:	§265.310(b)	The post-closure plan must include a detailed inspection and maintenance plan to ensure integrity of the final cover and the proper operation of monitoring equipment. The plan must address the following items as applicable:	
(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events;		OK ☐ final cover integrity;	
		OK ☐ settlement of final cover;	
		OK ☐ run-on and/or run-off control systems;	
(2) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of Subpart P of this part;		OK ☐ cover erosion;	
		NA ☐ leachate collection/removal detection system;	
(3) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and		NA ☐ gas collection and control system;	
		OK ☐ groundwater monitoring system; and	
(4) Protect and maintain surveyed benchmark marks used in complying with §265.109.		OK ☐ surveyed benchmarks.	
The inspection plan must address the following:			
☒ frequency of inspections, including justification of selected frequency;			Monthly
☒ items to be inspected;			
☐ problems or conditions to look for;			Plan needs to be more specific, e.g., check list.
☒ procedure to undertake if a problem exists; and			NO SPECIFICALLY MENTIONED
☒ inspection documentation procedures.			checklist will be used.

VII. LANDFILLS

B. Post-Closure

R-1 Maintenance and Monitoring Requirements
(Continued)

Regulatory Requirement	Regulatory Citation	Evaluation Criteria	Reviewer Findings/Comments
		The maintenance plan must provide the procedures which will be followed and an estimate of the materials needed to correct the most likely to occur problems within the post-closure period. Items which should be included as applicable are: - o groundwater well replacement; - o cover erosion; - o cover settlement; - o control of vegetation growth; - o control of wild animals (such as groundhogs which dig holes in the cover); and - o replacement of benchmarks.	Materials specified in cost estimate. Plan states that cover vegetation erosion, subsidence, monitoring, wells, benchmarks, security, etc. will be checked. Detailed procedures are included. Comparable to IP plan.
	NA	Finally, the plan must describe in detail how any leachate collection/detection system will be operated during the post-closure period. Included must be:	
	NA	o frequency of inspection for leachate, including justification for the selected frequency;	
	NA	o method of leachate removal and transportation;	
	NA	o disposition of collected leachate;	
	NA	o any testing procedures used to test the leachate, including analytical methods and test parameters;	
	NA	o documentation procedures to document quality, quantity, and dates leachate was observed and/or removed.	

VIII. CLOSURE OF LAND TREATMENT UNITS
A. Objectives of the Closure Plan
A-1. Control of migration of hazardous constituents to groundwater

REGULATORY REQUIREMENT

In the closure plan required under §265.112, the owner or operator must indicate how migration of hazardous constituents from the treated area into the groundwater will be controlled. (40 CFR 265.280(a)(1))

EVALUATION CRITERIA

The plan must specify the procedures/structures to be employed to prevent the migration of hazardous constituents to the groundwater. There generally are two avenues of reasoning that can be employed in demonstrating that groundwater will be protected.

- o The closure plan may indicate that all contaminated soils will be excavated and removed. By removing the source of contamination, the possibility for groundwater contamination is eliminated. In this instance, the requirements under item C-1 must be addressed; or,

- o The closure plan may indicate that all hazardous constituents have been effectively treated (i.e., transformed, immobilized or degraded) in the treatment zone. In this situation, the closure plan must provide all data used in making this determination. Also, the plan must demonstrate how the procedures to be used at closure (e.g., placement of a cover), will prevent migration of hazardous constituents into the groundwater.

REVIEWER FINDINGS/COMMENTS

1986 geo data (not included in closure plan) indicate no groundwater contamination.

Koppers will either determine that all heavy constituents do not exceed background levels or that they would migrate via bio-degradation.

VIII. CLOSURE OF LAND TREATMENT UNITS

A. Objectives of the Closure Plan

A-2. Control of release of contaminated runoff to surface waters

REGULATORY REQUIREMENT

in the closure plan required under §265.112, the owner or operator must indicate how release of hazardous constituents to surface waters via contaminated runoff will be controlled. (40 CFR 265.280(a)(2))

EVALUATION CRITERIA

The plan must specify how the closure activities will prevent a release of hazardous constituents to surface waters. To make this demonstration, the closure plan must show one of two situations.

- o The closure plan must show that hazardous constituents will be prevented from contacting runoff through the use of a cover. In this situation, the plan must specify the cover characteristics (see item C-2); or,
- o The closure plan must show that the release of runoff containing hazardous constituents will be prevented through proper runoff control features. In this case, the plan must demonstrate that the closed unit will be capable of preventing runoff from a 24-hour, 25-year storm event.

REVIEWER FINDINGS/COMMENTS

Koppers does not propose to use a cover. (Spray field is completely vegetated.)

Runoff and run-on will be controlled by existing berm.

No documentation on 24-hour 25-year storm event.

VIII. CLOSURE OF LAND TREATMENT UNITS
 F. Requirements for Land Treatment Units During the Post-Closure Care Period
 1-2. Maintenance of access restrictions

REGULATORY REQUIREMENT

As required by 40 CFR 265.280(f)(2), during the post-closure care period, the owner or operator must restrict access to the unit as appropriate for its post-closure use.

EVALUATION CRITERIA

The requirement for restriction of access during the post-closure care period must include a consideration of the following:

- o The wastes treated during the active life of the unit.
- o The concentrations of waste or waste constituents present after closure.
- o The potential for migration of hazardous constituents out of the treatment zone, and;
- o The potential for human or livestock exposure to hazardous constituents.

REVIEWER FINDINGS/COMMENTS

Plan states that post closure requirements are not applicable to the sprayed zone. Hazardous waste was not intentionally placed on the land & clean closure is anticipated.

REGULATORY REQUIREMENT

In the closure plan required under §265.112, the owner or operator must specify how wind dispersal of particulate matter from the treatment zone will be controlled. (40 CFR 265.280(a)(3))

VIII. CLOSURE OF LAND TREATMENT UNITS
A. Objectives of the Closure Plan
A-3. Control of airborne particulates

EVALUATION CRITERIA

The control of wind dispersal of particulates is largely controlled by soil moisture content and activities on the treatment zone during arid periods. As such, the following must be specified:

- OK 0 the range of soil moisture to be maintained and the methods for preventing soil desiccation; and,
- OK 0 that activities associated with particulate production (e.g. tilling) will not be conducted during arid periods, or when the soil moisture content is conducive to dust generation; or,
- OK 0 that a cover preventing wind dispersal will be established.

REVIEWER FINDINGS/COMMENTS

water will be delivered via
modification to existing water
delivery systems

No tilling is planned.

Spray field is covered with
grass.

VIII. CLOSURE OF LAND TREATMENT UNITS

A. Objectives of the Closure Plan

A-4. Compliance with food-chain crop restrictions

REGULATORY REQUIREMENT

In the closure plan required under §265.112, the owner or operator must specify how compliance with §265.276, concerning the growth of food-chain crops, will be attained. (40 CFR 265.280(a)(4))

EVALUATION CRITERIA

Food-chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury or other constituents identified under §265.273(b):

- o will not be transferred to the food crop portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals; or,
- o will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils in the same region.

The information required to make this demonstration is specified under §265.276(h)(2).

Food-chain crops must not be grown on a land treatment unit that received cadmium unless all requirements under §265.276(c)(1)(i) through (iii) or §265.276(c)(2)(i) through (iv) are met.

REVIEWER FINDINGS/COMMENTS

*closure plan provided
state that food-chain
crops will not be grown*

VIII. CLOSURE OF LAND TREATMENT UNITS
 C. Methods to be Considered in Addressing the Closure and Post-Closure Care Objectives
 C-1. Removal of contaminated soil

REGULATORY REQUIREMENT	EVALUATION CRITERIA	REVIEWER FINDINGS/COMMENTS
In closing a land treatment unit, the owner or operator must consider the removal of contaminated soils. (40 CFR 265.280(c)(1))	Removal of contaminated soil is the possible approach to the closure of a land treatment unit. It is not however, applicable to all cases. In some situations the owner or operator may choose to leave the treatment zone in place if all hazardous constituents have been effectively treated. If the treatment zone is to be removed at closure the following information must be provided. - o The method for removal of contaminated soil. - o The final disposition of the contaminated soil. - o The criteria for determining when all contaminated soil has been removed. - o The testing procedures to ensure removal of the contaminated soil. The test procedures specified must include a description of the sampling program to be employed, the analytical program and the test parameters to be monitored.	<i>Requires plans to address</i> <i>Demonstrate that Kool</i> <i>constituents are not present</i> <i>above background levels or</i> <i>that soils in situ via D-1</i> <i>degradation.</i> <i>Koppers will analyze soils &</i> <i>soil pore liquids for Kool</i> <i>constituents. See MME D-1</i> <i>for additional comments.</i>

VIII. CLOSURE OF LAND TREATMENT UNITS
 C. Methods to be Considered in Addressing the Closure and Post-Closure Care Objectives
 C-2. Placement of final cover

REGULATORY REQUIREMENT EVALUATION CRITERIA REVIEWER FINDINGS/COMMENTS

In closing a land treatment unit, the owner or operator must consider the placement of a final cover on the unit. (40 CFR 265.280(c)(2))

Except where no significant concentrations of hazardous constituents remain in the treatment zone, the final surface should be covered with a permanent cover to prevent water and wind borne erosion and off-site transport of soil and/or hazardous materials.

The plan must provide the following:

- o Drawings showing cover layers and thicknesses, final surface contours, slope, length of run of slope and overall dimensions.
- o Common name, species, and variety of cover crop to be established.
- o Data demonstrating that the cover crop can thrive in the soils and climate in which it will be planted.
- o Descriptions, including drawings and calculations if applicable, of infiltration control, erosion and runoff control, and wind erosion control.

Additional guidance is provided on p. 571 of SW-874.

Koppers does not plan to add additional cover. Spray field is already vegetated.

VIII. CLOSURE OF LAND TREATMENT UNITS
D. Requirements for Land Treatment Units During the Closure Period
D-1. Unsaturated zone monitoring

REGULATORY REQUIREMENT

During the closure period the owner or operator must continue unsaturated zone monitoring. The soil pore liquid monitoring may be terminated on days after the last application of waste to the treatment zone. (40 CFR 265.280(d)(1))

EVALUATION CRITERIA

The information submitted concerning unsaturated zone monitoring must specify the following:

- o The location (or method of selection of location) of all sampling points within the treatment area.
- o The location of background sampling points and documentation that the background areas used are representative of the soil types in the treatment area.
- o The methods for sample collection including the type and installation (as applicable) of sampling devices.
- o The methods for sample preservation and shipment including chain-of-custody procedures.
- o The analytical procedures to be used, including a justification of the parameters to be monitored.
- o The statistical procedures to be employed to evaluate the data.

Generally, the unsaturated zone monitoring program must be patterned after the program used during active land treatment. Additional guidance is provided on p. 573 of SW-874, and in EPA/530-SW-88-016.

REVIEWER FINDINGS/COMMENTS

Frequency not specified.
Sampling point not specified.
Background sampling point not specified.
Methods + sampling devices, e.g., hand augers, replicators, not specified.
Chain-of-custody procedures not specified.
Will monitor for soil parameters, analytical procedures not specified in spray field section. SW 874 methods are referenced in surface impoundment section.

Plan should address depth of sampling (e.g., soil pore vs. surface sample) to determine vertical extent of zone.

Rationale for all above items should be specified.

VIII. CLOSURE OF LAND TREATMENT UNITS
D. Requirements for Land Treatment Units During the Closure Period
D-2. Maintenance of run-on control system

REGULATORY REQUIREMENT

During the closure period, the owner or operator must maintain the run-on control system required under §265.272(b). (no CFR 265.280(d)(2)).

EVALUATION CRITERIA

The run-on control structures must be maintained during closure. The plan provided must specify that these structures are capable to diverting the peak discharge from a 24-hour, 25-year storm event. The plan must include calculations and drawings documenting this capability.

REVIEWER FINDINGS/COMMENTS

Existing dike will be used.

Capability not documented.

VIII. CLOSURE OF LAND TREATMENT UNITS
D. Requirements for Land Treatment Units
D-3. Maintenance of runoff management system

REGULATORY REQUIREMENT

During the closure period, the owner or operator must maintain the runoff management system required under §265.272(c). (40 CFR 265.280(d)(3))

EVALUATION CRITERIA

The runoff control and management system must be maintained and managed during the closure period. The plan provided must specify that the runoff management system is capable of collecting and controlling the water volume equivalent to a 24-hour, 25-year storm event.

The plan for management of the runoff control system must specify the following:

- o that collection and holding facilities associated with the runoff control system will be managed expeditiously after storms to maintain their capacity
- o the testing and analytical protocol for determining the levels of hazardous constituents in the runoff
- o the ultimate disposition of collected runoff.

Additional guidance is provided on p. 572 of SW-874.

REVIEWER FINDINGS/COMMENTS

*Existing life will be used.
Capacity not documented.*

*Plan does not address
runoff collection, testing,
or disposition.*

VIII. CLOSURE OF LAND TREATMENT UNITS
D. Requirements for Land Treatment Units During the Closure Period
D-4. Control of particulate releases

REGULATORY REQUIREMENT

During site closure, the owner or operator must control wind dispersal of particulate matter from the treatment zone. (40 CFR 265.200(d)(4))

EVALUATION CRITERIA

The control of wind dispersal of particulates is largely controlled by soil moisture content and activities on the treatment zone during arid periods. As such, the following must be specified:

- o the range of soil moisture to be maintained and the methods for preventing soil desiccation; and,
- o that activities associated with particulate production (e.g. tilling) will not be conducted during arid periods, or when the soil moisture content is conducive to dust generation.

REVIEWER FINDINGS/COMMENTS

*water will be delivered through
modified spray system as
required. Range of soil moisture
not specified.
No tilling is planned,*

VIII. CLOSURE OF LAND TREATMENT UNITS
E. Certification of Closure

REVIEWER FINDINGS/COMMENTS

REGULATORY REQUIREMENT

For the purposes of complying with §265.115, when closure is completed, the owner or operator must provide closure certification. (40 CFR 256.240(e))

EVALUATION CRITERIA

The closure plan must specify the following regarding closure certification for land treatment units:

- o that the certification will be performed by either the owner or operator and an independent qualified soil scientist, or by a professional engineer; and,
- o that the certification will document that closure has been performed according to the closure plan.

VIII. CLOSURE OF LAND TREATMENT UNITS
F. Requirements for Land Treatment Units During the Post-Closure Care Period
f-1. Continuation of soil core monitoring

REGULATORY REQUIREMENT

During the post-closure care period, the owner or operator must continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan. (40 CFR 265.280(f)(1))

EVALUATION CRITERIA

The plan for soil-core monitoring in the unsaturated zone must include the following:

- o The method for selection of the location of sampling points.
- o The frequency with which all monitoring will be conducted.
- o The sampling method to be employed.
- o Methods for sample preservation and transport, including chain-of-custody procedures.
- o Analytical procedures for sample analysis.
- o Statistical procedures for data analysis.
- o Justification of indicator parameters.
- o A description of the background sampling area, and documentation that it is representative of the treatment area soils.

REVIEWER FINDINGS/COMMENTS

Soil monitoring will continue during closure period. Closure estimated to take 90-180 days. Some KOCs and nutrients are above background levels. Closure period may be extended. Clear closure is anticipated.

VIII. CLOSURE OF LAND TREATMENT UNITS
 f. Requirements for Land Treatment Units During the Post-Closure Care Period
 f-3. Compliance with food-chain crop restrictions

REGULATORY REQUIREMENT
 During the post-closure period, the owner or operator must continue to comply with §265.276 concerning the growth of food-chain crops. (40 CFR 265.280(f)(3))

EVALUATION CRITERIA

Food-chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury or other constituents identified under §265.273(b):

- o Will not be transferred to the food crop portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals; or,
- o Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils in the same region.

The information required to make this demonstration is specified under §265.276(b)(2).

Food-chain crops must not be grown on a land treatment unit that received cadmium unless all requirements under §265.276(c)(1)(i) through (iii) or §265.276(c)(2)(i) through (iv) are met.

REVIEWER FINDINGS/COMMENTS

VIII. CLOSURE OF LAND TREATMENT UNITS
 F. Requirements for Land Treatment Units During the Post-Closure Care Period
 F-4. Control of particulate releases

REGULATORY REQUIREMENT

During post-closure care period, the owner or operator must control wind dispersal of particulate matter from the treatment zone. (40 CFR 265.280(f)(4))

EVALUATION CRITERIA

Once closure has been completed at the unit, wind dispersal of particulates generally is not a concern because usually a cover has been placed over the treatment zone. However, if no cover is specified, refer to item D-4 concerning steps to be taken to prevent wind dispersal of particulates.

REVIEWER FINDINGS/COMMENTS

VIII. CLOSURE OF LAND TREATMENT UNITS
 F. Requirements for Land Treatment Unit. During the Post-Closure Care Period
 f-5. Inspection and maintenance procedures

REGULATORY REQUIREMENT

The post-closure plan must specify the planned inspection and maintenance activities for the unit during the post-closure care period. (40 CFR 265.118(a)(2))

EVALUATION CRITERIA

The closure/post-closure plan must include a detailed inspection and maintenance plan.

The plan must address the following items as applicable:

- o final cover integrity;
- o settlement of final cover;
- o run-on and/or runoff control systems;
- o cover erosion; and
- o groundwater monitoring system.

The inspection plan must address the following:

- o frequency of inspections, including justification of selected frequency;
- o items to be inspected;
- o problems or conditions to look for;
- o procedures to undertake if a problem exists; and
- o inspection documentation procedures.

The maintenance plan must provide the procedures which will be followed to correct problems within the post-closure period. Items which should be included as applicable are:

- o groundwater well replacement;
- o repair of cover erosion;
- o cover settlement;
- o redefinition of drainage control structures; and
- o control of vegetation growth.

REVITWER FINDINGS/COMMENTS

VIII. CLOSURE OF LAND TREATMENT UNITS
G. Equipment and Structures Decontamination

REGULATORY REQUIREMENT

When closure is completed, all facility equipment and structures must have been properly disposed of, or decontaminated by removing all hazardous waste and residue. (40 CFR 265.114)

EVALUATION CRITERIA

The closure plan must specify the following concerning equipment decontamination or disposal:

- o The methods used to decontaminate equipment, including washing protocols.
- o A description of the procedures used to collect and dispose of contaminated wash/rinse water.
- o In the case of disposed equipment, the final disposition of the equipment.

REVIEWER FINDINGS/COMMENTS

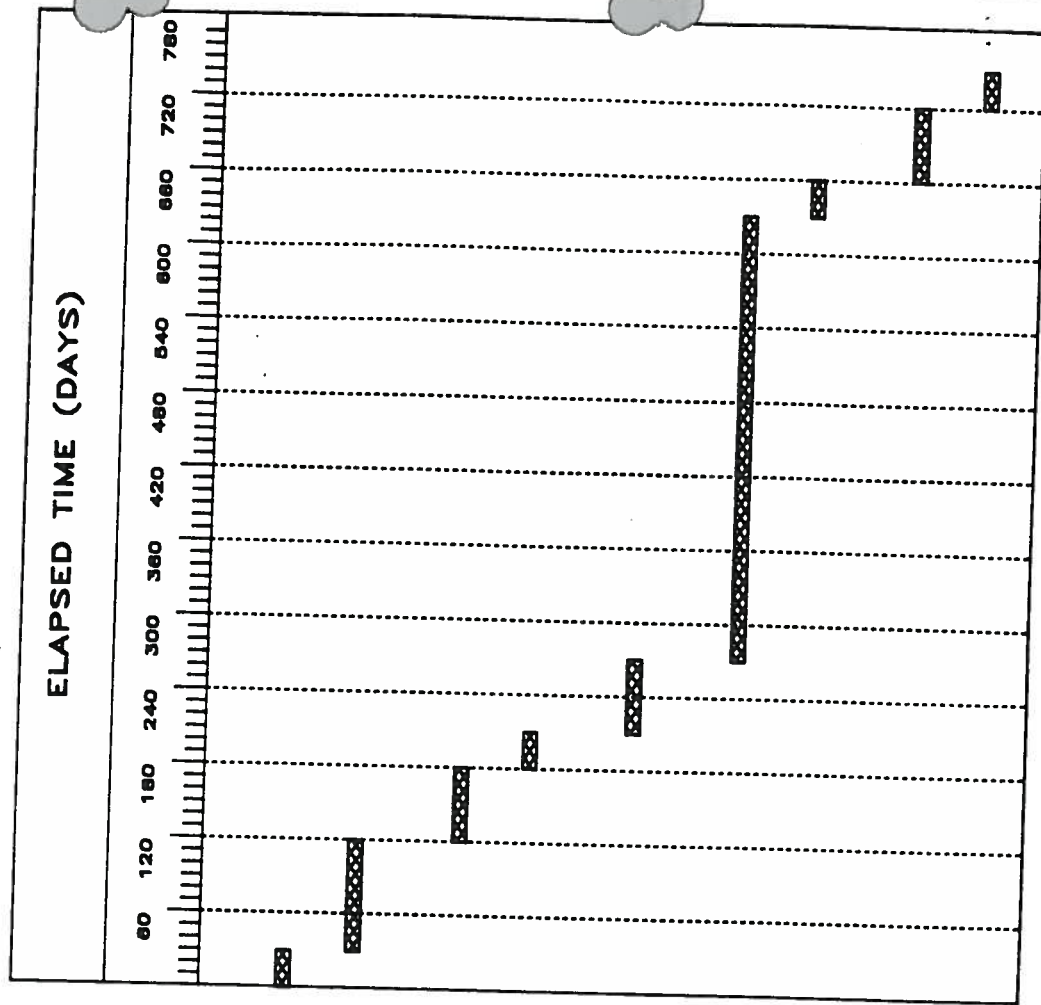
existing cover will be maintained via water spray system. No other decontamination of equipment anticipated. Therefore, decon not applicable.

TABLE 4.1 - From IP closure plan

Major Aspects of Testing and Verification Program

TESTING OR VERIFICATION METHOD	APPLICATION	PURPOSE OF TESTS	TESTING OF VERIFI- CATION FREQUENCY	STANDARD	REFERENCE
Laboratory Testing	Clay Barrier Native Soils	Pre-qualification of material sources, development of con- struction standards.	2 tests of each potential source.	N/A	ASTM D422 ASTM D423 ASTM D424 ASTM
Laboratory Testing	Clay Barrier	Verification of properties of off- site materials deli- vered to stockpile.	1/200 yd ³	+ 5% of standards developed under #1	ASTM D422 ASTM D423 ASTM D424 ASTM D698
Field Testing (Density Control)	Clay Barrier Native Soils.	Compaction Control Compaction Control	1/200 yd ³	>95% SPMDD; + 2% OMC >90% SPMDD; + 3% OMC	ASTM D2922 ASTM D1556
Surveys	All excavation, con- struction and grad- ing operations	Control of line and grade of construc- tion.	regularly during field operation	3rd order survey accuracy	N/A
Resident Field Engi- neer's Observations	All closure activi- ties	Documentation of compliance with plan and specification.	daily	Standard engineering practice.	N/A
Field Testing (hand auger)	Clay Barrier Native Soil	Verification of cov- er component thick- ness.	1/500 yd ²	thickness specifica- tion of +10%	N/A

SCHEDULE FOR CLOSURE KOPPERS COMPANY GRENADA, MISSISSIPPI



FINAL RECEIPT OF WASTE (DAY 0)

QUIET SETTLING

DEWATERING OF SI

REMOVAL AND DISPOSAL OF PUMPABLE K001 *

SAMPLING AND ANALYSIS

REMOVAL AND TREATMENT OR DISPOSAL OF CONTAMINATED SOIL

INSITU DECONTAMINATION OF SOILS AND SUBSOILS

SAMPLING AND ANALYSIS

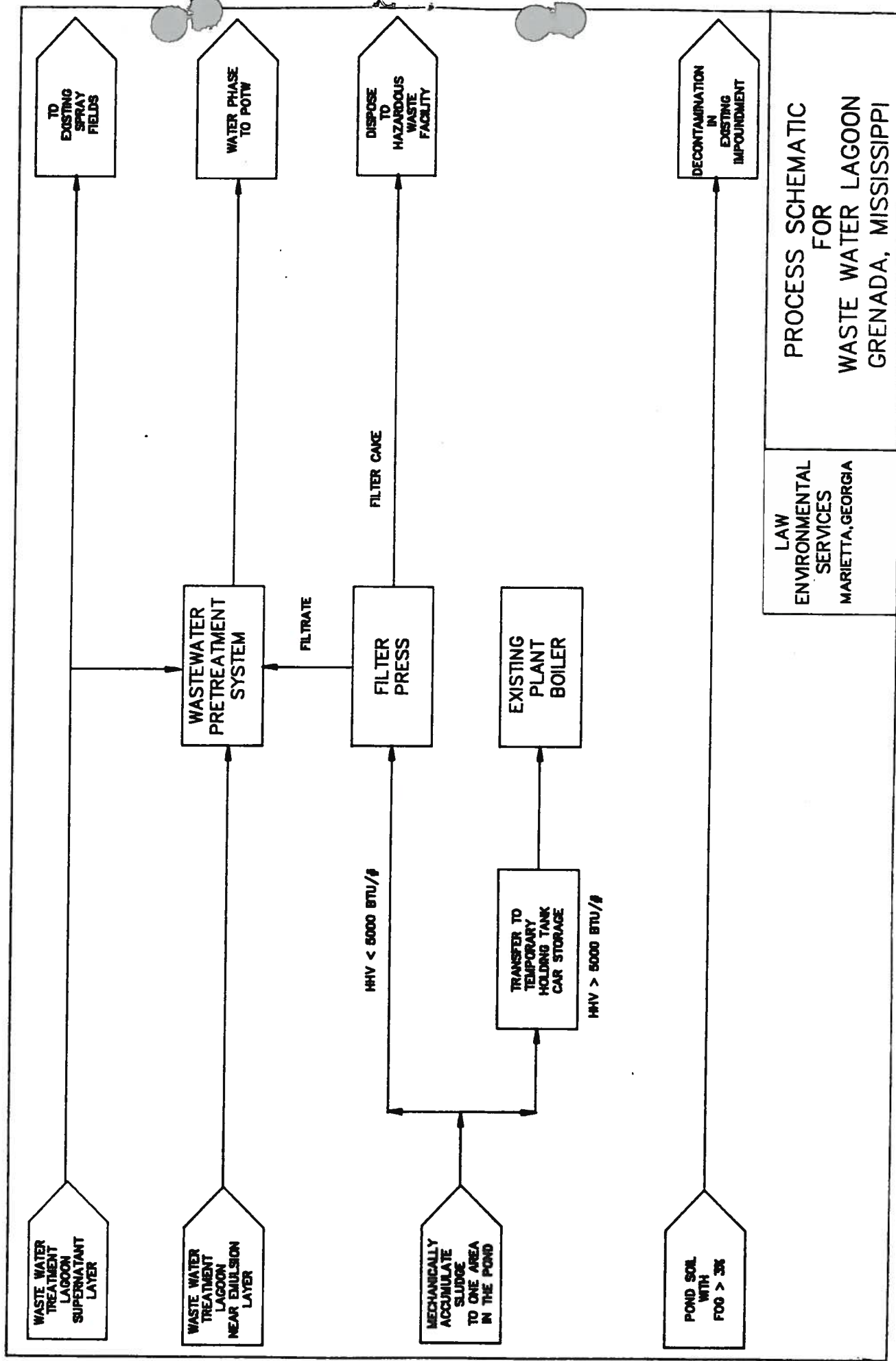
BACKFILL, COVER, SEED, AND DECONTAMINATE EQUIPMENT

COMPLETION OF CERTIFICATION

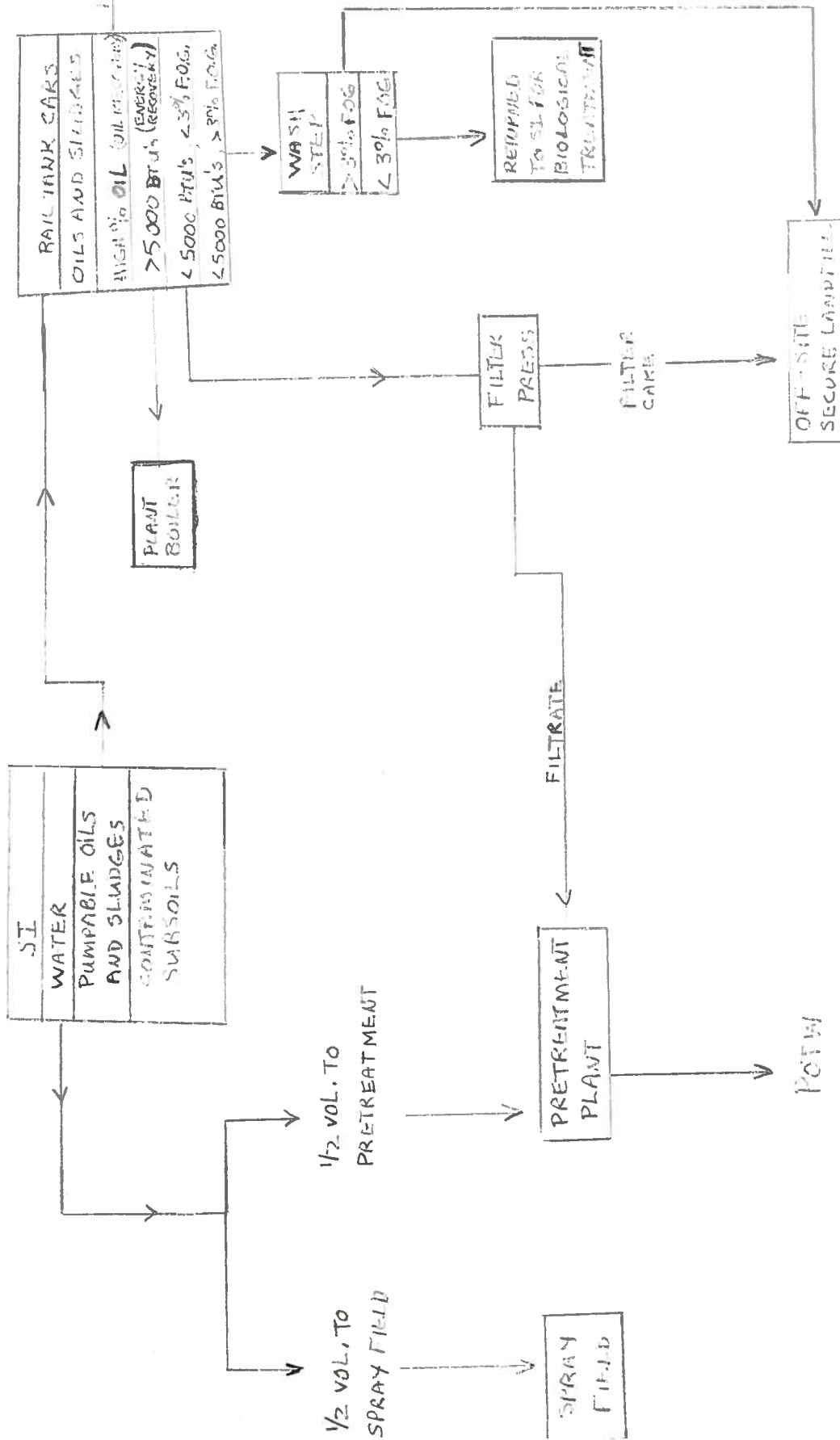
750 340 w/o in situ decon

* DISPOSAL SHIPMENTS OF SLUDGES AND SIGNIFICANTLY CONTAMINATED SOIL WILL COMMENCE WHEN THE SLUDGES ARE DEEMED NOT USABLE UNDER 40 CFR SECTION 261.6

ELAPSED TIME



SURFACE TEMPLATING CLOSURE



INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Koppers
LOCATION Tie Plant (Grenada)
DATE 5/20/86
INSPECTORS Jim Hardage, Ms. Bureau of Pollution Control
Jim Cook (oversight role), EPA Region III

Records reviewed 5/20/86.
Waste management units and process
areas inspected 5/21/86.

KOPPERS REPRESENTATIVES -

MARTIN SCHLESINGER - Pittsburgh office
Norman Lindvall - Grenada Plant

SUBPART B - GENERAL FACILITY STANDARDS

265.12 Required Notices

- a) The facility owner or operator must notify the Director at least four weeks in advance of receipt of wastes from a foreign source.
- b) Before transferring ownership or operation of a facility, the facility's owner or operator must notify the new owner or operator of the requirements of 40 CFR 265 and 122.

265.13 General Waste Analysis

Before treating, storing, or disposing of hazardous waste, the facility owner or operator must obtain a detailed chemical and physical analysis of wastes. The analysis must contain all the information which must be known to treat, store, or dispose the waste in accordance with the federal requirements.

265.14 Security to Prevent Unknowning and
Unauthorized Access to the Facility

- a) The owner or operator must prevent the unknowing entry and minimize the possibility for unauthorized entry unless:
- 1) physical contact with the waste, structures, or equipment will not be injurious
 - 2) disturbance of the waste or equipment will not violate the requirements of

[illegible]

In compliance - Yes
 Not in compliance - No
 Not applicable - NA

REQUIREMENT

COMMENTS

265.14 - Continued

b) Unless exempt under 265.14 (a) (1) or 402.7-14(a)(2), a facility must have:

1) a 24-hour surveillance system

2) (i) an artificial or natural barrier which completely surrounds the active portion of the facility

(ii) a means to control entry

c) A sign warning of the danger of intruding into the facility.

265.15 Inspection and Monitoring

a) The owner or operator must inspect the facility for malfunctions and deterioration, operator errors, or discharges which may be causing or lead to release of hazardous waste constituents to the environment or a threat to human health.

b) The owner or operator must develop and follow a schedule and plan for inspections.

c) The owner or operator must take remedial action upon the detection of malfunction or the deterioration of equipment and structures when a hazard is imminent.

d) The owner or operator must record inspections in an inspection log and must keep the records for at least three years from the date of inspection.

* checklist for spray field was

Yes	No	N/A
☒	☐	☐
☒	☐	☐
☒	☐	☐
☒	☐	☐
☒	☐	☐
☒	☐	☐
☒	☐	☐

Spray field should be fenced. In addition, there is a crawl space underneath a portion of the fence surrounding the surface impoundment. GH 5/26
 Signs are needed around the spray field.

Koppers has checklists for the surface impoundment (S.I.) and the ~~spray~~ ^{GH 5/26/86} container storage area.

SI checklist should include line item for integrity of fence & signs.

Checklists for S.I. and container storage area are being filled out. Checklist for spray field has been developed but has not been used. Koppers will begin documenting

265.16 Facility Personnel Training

- Records are current.

**265.17 General Requirements for Ignitable,
Reactive or Incompatible Wastes**

- a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste.
- b) Treatment, storage, or disposal of ignitable or reactive waste and the mixture or commingling of incompatible wastes must be conducted so that it does not:
 - 1) Generate extreme heat or pressure, fire or explosion, or violent reaction;
 - 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient

In compliance - Yes
 Not in compliance - No
 Not applicable - NA

REQUIREMENT

265.17 - Continued--

quantities to threaten human health;

3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4) Damage the structural integrity of the device or facility containing waste; or

5) Through other like means threaten human health or the environment.

SUBPART C - PREPAREDNESS AND PREVENTION

Pursuant to 265.30 through 265.37, facilities must be maintained and operated for and prevention of releases of hazardous wastes controlled by the State.

SUBPART D - CONTINGENCY PLANS

Pursuant to 265.56, facilities must have contingency plans and emergency procedures to be followed in the event of a release of hazardous waste.

SUBPART E - MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

265.71(a)(1-5) If a facility receives hazardous waste accompanied by a manifest, the owner or operator must meet the requirements of 265.71(a)(1-5)

265.71(b)(1-5) If a facility receives, from a rail or water transporter, hazardous waste which is accompanied by a shipping paper, the owner or operator must meet the requirements of 265.71.

COMMENTS

Hoppers will update list of emergency coordinators to reflect change in plant management (Contingency plan list has been updated; SPCC plan has not).

In compliance - Yes
 Not in compliance - No
 Not applicable - NA

REQUIREMENT

265.72(a) Upon discovery of significant manifest discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter.

(b) If a significant manifest discrepancy is not resolved, the owner or operator must notify the Director.

265.73(b) The owner or operator must keep a written operating record at the facility which meets the requirements of 265.73(b).

265.74(a) All records must be furnished upon request and available at all times for inspection by the Director or EPA.

(c) A copy of records of waste disposal locations and quantities must be submitted to the Director and the local land authority upon closure of the facility.

265.75 The owner or operator must submit an annual report to the Director in compliance with the requirements of 265.75.

265.76 The receipt of any unmanifested waste must be reported to the Director.

265.77 The owner or operator must submit a report to the Director if any of the following occur:

- a) releases, fires, explosions
- b) groundwater contamination
- c) facility closure.

COMMENTS

Manifests documenting incoming shipments of hazardous waste for use as fuel were reviewed.

Two of the manifests reviewed did not have the EPA I.D. number for the Koppers Grenada facility. However, 265.72 (a) of the Miss. Hazardous Waste Management Regulations does not define this omission as constituting a significant manifest discrepancy.

In compliance - Yes
 Not in compliance - No
 Not applicable - NA

Yes	No	N/A
✓		
✓		
✓		
✓		

REQUIREMENT

SUBPART F - GROUNDWATER MONITORING

265.90 Owner or operator must implement a groundwater monitoring program capable of determining the facility's impact on the quality of the upper aquifer within one year of the effective date of 265.90.

265.91 - 265.94 The owner and operator must install, operate, and maintain a groundwater monitoring system which meets the requirements of 265.91 - 265.94.

265.90(c) All of the groundwater monitoring requirements may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste constituents from the facility via the uppermost aquifer below the facility to water supply wells or to surface water.

SUBPART G - CLOSURE AND POST-CLOSURE

265.111 The owner or operator must close his facility in a manner that:

- 1) minimizes the need for future maintenance, and
- 2) controls, minimizes, or eliminates post-closure escape of hazardous waste.

265.112(a) The owner or operator must have a written closure plan on the effective date of Part 265.

COMMENTS

Groundwater monitoring program for S.I. and sprayfield has been implemented.

265:112(a) Continued--

11) A description of how and when the facility will be partially closed, if applicable, and ultimately closed.

2) An estimate of the maximum inventory of wastes in storage or treatment at any given time.

3) Steps to decontaminate facility equipment.

4) A schedule for final closure which must include, as a minimum, anticipated dates when wastes will no longer be received, anticipated date for completion of final closure, and intervening milestone dates.

265.113(a) Closure must be initiated within 90 days after receiving the final volume of hazardous wastes.

(b) The owner or operator must complete closure activities within six months after receiving the final volume of wastes.

265.114 Upon completion of closure, all equipment and structures must be properly disposed of or decontaminated.

265.115 The owner or operator and an independent registered professional engineer must certify that the facility has been closed in accordance with the approved closure plan.

In compliance - Yes
Not in compliance - No
Not applicable - NA

COMMENTS

Yes	No	N/A
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In compliance - Yes
 Not in compliance - No
 Not applicable - NA

COMMENTS

REQUIREMENT

265.117(a) Post closure care must consist of at least:

- 1) Groundwater monitoring
- 2) Maintenance of the contaminant system.

The owner or operator must have a post-closure plan on the effective date of Part 265 and it must include:

- 1) Groundwater monitoring activities and frequency.
- 2) Maintenance activities and frequencies to ensure the integrity of the cap, final cover, or other containment structures, and functions of the facilities monitoring equipment.

265.119 Within 90 days after closure, the owner or operator must submit a survey plat of the facility.

265.120 The owner or operator must record a notice on the deed that the land has been used to manage hazardous waste.

SUBPART H - FINANCIAL REQUIREMENTS

265.142(a) The owner or operator must develop and maintain a current estimate of closure and post-closure costs.

SUBPART I - OTHER FACILITY STANDARDS

265.170 - 265.172 The container must be compatible with the waste to be stored.

Financial test and related information was submitted to Miss. DNR in March '86.

Not in compliance - No

Not applicable - NA

COMMENTS

REQUIREMENT

REQUIREMENT	Yes	No	N/A	COMMENTS
265.173 Containers holding hazardous waste must be kept closed and must not be opened, handled, or stored in a manner which may cause a rupture or leak.	✓			Koppers stores drums of incoming waste shippers on a concrete pad next to the boiler house and feeds the drums. GH 5/26/86
265.174 Areas where containers are stored must be inspected weekly.	✓			
265.176 Containers holding ignitable or reactive waste must be located at least 15 meters from the facility's property line.	✓			
265.177(a) Incompatible wastes must not be placed in the same container.			✓	
(b) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby must be separated or protected from the other materials.			✓	
SUBPART J - TANKS				
265.192(b) Hazardous waste must be placed in a tank if they could cause the tank or its liner to leak.			✓	Koppers has two oil/water separator tanks. Koppers considers these units to be process tanks primarily, rather than wastewater treatment units.
(c) Uncovered tanks must have a least two feet of freeboard unless other containment structures, a drainage control system, or other diversion structures with a capacity that equals or exceeds the volume of the top two feet of the tank.			✓	
(d) Tanks which have a continuous feed system must be equipped with a means to stop the inflow.			✓	

Not in compliance - No

Not applicable - NA

COMMENTS

REQUIREMENT

265.193 Waste analysis must be conducted pursuant to 265.13, and 265.193(a).

265.194 Tanks must be inspected in accordance with 265.194.

265.197 At closure, all hazardous waste and hazardous waste residues must be removed from the tanks.

265.198 Ignitable or reactive waste should not be placed in a tank unless 265.198 is complied with.

265.199 Incompatible wastes must not be placed in the same tank unless 265.176 is complied with.

SUBPART K - SURFACE IMPOUNDMENTS

265.222 Must maintain at least two feet of freeboard.

265.223 Earthen dikes must have protective cover.

265.225 Must conduct waste analyses and trial tests in accordance with 265.225.

265.226(1) Must inspect the freeboard level at least once each operating day.

(2) Must inspect the surface impoundment at least once a week to detect any leaks, deterioration, or failure.

265.228 The surface impoundment must close in accordance with 265.228.

Records are up to date.

Not in compliance - No
Not applicable - NA
Yes No N/A

COMMENTS

REQUIREMENT

265.229 Ignitable or reactive waste must not be placed in a surface impoundment unless 265.229 is complied with.

265.230 Incompatible wastes must not be placed in the same surface impoundment unless 265.17(b) is complied with.

SUBPART L - WASTE PILES

265.251 A waste pile must be protected and managed to control wind dispersal.

265.252 An owner or operator must conduct waste analyses unless the facility meets the exemptions of 265.252.

265.253 Within one year after the effective date of the regulations, leachate or run-off from a pile must be controlled pursuant to 265.253.

265.256 Ignitable or reactive waste must not be placed in a waste site unless 265.256 is complied with.

265.257 The requirements of 265.257 for incompatible wastes must be complied with.

SUBPART M - LAND TREATMENT

265.272(a) Hazardous waste must not be placed at a land treatment facility unless it can be made less hazardous or non-hazardous.

(b) Run-on must be diverted away from other active portions as of one year after the effective date of Part 265.

Spray field is well vegetated.
No signs of sludge accumulation.

Spray field is diked.

IN COMPLIANCE - YES
Not in compliance - No

Not applicable - NA

COMMENTS

REQUIREMENT

265.272 --- Continued

(c) Run-off from active portions must be collected as of one year after the effective date of Part 265...

265.273 Waste analyses must be conducted pursuant to 265.273.

265.276(a) An owner or operator must notify the State Director within 60 days after the effective date of Part 265 if food chain crops are grown on the land treatment facility.

(b) Food chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless 265.276(b) is complied with.

(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless 265.276(c) is complied with.

265.278 The owner or operator must have in writing and must implement an unsaturated zone monitoring plan pursuant to 265.278.

265.279 The owner or operator must keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in a facility.

265.280 A land treatment facility must meet the closure and post-closure requirements of 265.280.

Water to spray field and spray field soil has been analyzed.

Koppers has included the spray field in their recodified PART B permit application.

Spray is controlled manually and by timer.

Included

IN PART B permit application.

COMMENTS

In compliance - Yes
Not in compliance - No
Not applicable - NA

265.282 Incumbent life warden must not be placed in the same land treatment area unless 265.17(b) is complied with.

SUBPART N - LANDFILLS

265.302(a) Run-on must be diverted away from the active portions within one year after the effective date of Part 265.

(b) Run-off from active portions must be collected within one year after the effective date of Part 265.

(d) Must control wind dispersal.

265.309 The owner or operator must meet the surveying and recordkeeping requirements of 265.309.

265.310 A landfill must comply with closure and post-closure requirements of 265.310.

265.312 Ignitable or reactive waste must not be placed in a landfill, unless 265.312 is complied with.

265313 Incompatible wastes must not be placed in a landfill unless 265. 17(b) is complied with.

265.314 Bulk or non-containerized liquid waste, waste containing free-liquids, or containers holding liquid waste should not be placed in a landfill unless the requirements of 265.314

REQUIREMENT

265.315 (1) Empty containers must be reduced in volume as of one year after the effective date of Part 265.

SUBPART O - INCINERATORS

265.343 Must be at steady state conditions before adding hazardous waste.

265.345 Waste analyses must be conducted pursuant to 265.345.

265.347 Monitoring and inspections must be conducted as delineated in 265.347.

265.351 At closure, the owner or operator must remove all hazardous waste and hazardous waste residues.

SUBPART P - THERMAL TREATMENT

265.373 Must be at steady state conditions before adding hazardous wastes.

265.375 Waste analyses must be conducted pursuant to 265.375.

265.377 Monitoring and inspections must be conducted as delineated in 265.377.

265.301 At closure, the owner or operator must remove all hazardous waste residues.

265.382 Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives

NOT IN COMPLIANCE - NO

Not applicable - NA

Yes No N/A

COMMENTS

Koppers burns hazardous wastes from other Koppers facilities in an industrial boiler. Boiler has an air permit from Miss. Bureau of Pollution Control.

COMMENTS

Not in compliance - No
Not applicable - NA

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

Yes	No	N/A
-----	----	-----

KA

KA

REQUIREMENT

Other questions or standards.

Are there any other generators transporting their waste to this hazardous waste management facility?

Not in compliance - No

Not applicable - NA

Yes

No

N/A

COMMENTS

Other Koppers plants are shipping waste to the Grenada plant^{8th} for use as fuel in the boiler.

EPA - Region IV

Preliminary Assessment/Site Investigation (PA/SI)
of
Prior or Continuing Releases from Solid Waste Management Units

I. Facility Information

Facility Name: Hoppers Company, Inc.

EPA I.D. No.: MSDC07027543

Facility Address: P.O. Box 160

The Plant MS 38900

PA/SI Prepared By:

Name: Jim H. Hodge

Agency/Organization: MS Division of Pollution Control

Main Components of RCRA PA/SI

- 1) Questionnaire on Solid Waste Management Units/Prior Releases
- 2) PA/SI Form Evaluating Solid Waste Management Questionnaire (this form)
- 3) Summary of Follow-up Inspections and any Analytical-work done to Evaluate Solid Solid Waste Units and known or Suspected releases.

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I. Evaluation of Information Concerning Solid Waste Management Units and Prior or Continuing Releases (PA/SI)

The main purpose is to determine whether or not there have been or may have been prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units which could require corrective action under Section 3004U of the Hazardous and Solid Waste Act. The solid waste management units of concern are:

- a) Solid waste management units not currently regulated under RCRA
- b) Solid waste management units regulated under RCRA but not subject to groundwater monitoring requirements

The purpose of this review is to determine:

- a) Do such units exist?
- b) Have there been prior or continuing releases of hazardous wastes or hazardous constituents from such units?
- c) Have releases caused environmental contamination that would warrant corrective action?
- d) If the answers to questions no. 1, 2 and 3 above are not clear yes or no answers, what additional data, information or investigation is needed to make a clear yes or no answer?

This review has two main components. The first is a review of the questionnaire sent to the applicant regarding Solid Waste Management Units and prior or continuing releases of hazardous waste. The second part is a summary of inspections done at the facility and observations related to Solid Waste Management Units.

The attached flow charts show the key decision points for the two categories of solid waste management units.

A. Review of Solid Waste Management Unit Questionnaire:

- 1) Date questionnaire re Solid Waste Management Units was sent out 2/22/83
- 2) Date response received Mar 15 85
- 3) Review of response indicates

- ☒ a) Solid Waste Management Units exist
(Other than RCRA regulated units)
- ☐ b) No Solid Waste Management Units exist
(Other than the RCRA regulated units shown on Part A and Part B application)
- ☐ c) It is not clear from review of questionnaire whether or not any Solid Waste Management Units exist - additional information and/or a site visit will be required

EPA - Region IV

- 4) Based on an inspection or inspections that have been done at this facility there is no reason to question or doubt the information which the applicant has submitted on the questionnaire regarding Solid Waste Management Units and the possibility of prior or continuing releases of hazardous wastes or constituents.

- ☒ a) I concur with this statement *
- ☐ b) I do not concur with this statement for the following reasons:

* Information on Questionnaire
appears to be accurate + complete.

- c) My knowledge of facility is not sufficient for me to concur or non-concur with the information in the Solid Waste Management Unit Questionnaire.

Date or Dates of Inspections 4/16/85 RCRA Interim Status
Inspectors Name Jim Harbo inspection
Inspectors Signature _____

- 5) If 4(b) was checked,
Describe what additional information or testing is needed to determine if prior or continuing releases of hazardous wastes or constituent have occurred. Specify which units are of concern and what types of releases are suspected. (i.e., releases to groundwater, surface water, air, soils, etc.).

Additional study is needed to determine
if there has been a release to groundwater
from closed impoundment & inactive
landfills.

- 6) An on-site inspection to discuss and evaluate the possibility of prior or continuing releases from Solid Waste Management Units is recommended

- ☒ a) Yes To determine location of closed
impoundments
☐ b) No

- 4) If response to No.3 above is (a) then answer this question

In regard to prior or continuing releases of Hazardous Wastes or Hazardous Constituents the response to the questionnaire indicates:

- _____ a) Releases of Hazardous Wastes or constituents have occurred or are thought to have occurred
- _____ b) Releases of Hazardous Wastes or constituents have not occurred
- ☒ c) It is not known whether releases of Hazardous Wastes or Hazardous constituents have occurred

- 5) For RCRA regulated units that do not have groundwater monitoring the response to the questionnaire indicated

- _____ a) Releases of Hazardous Wastes or constituents have occurred or are thought to have occurred
- _____ b) Releases of Hazardous Wastes or constituents have not occurred
- ☒ c) It is not known whether releases of Hazardous Wastes or Hazardous constituents have occurred

- 6) Environmental Monitoring Data associated with prior or continuing releases is available for the following areas:

- _____ a) Groundwater
- _____ b) Air
- _____ c) Surface Waters
- _____ d) Soils

NOT AVAILABLE
AT THIS TIME

- 7) Environmental Monitoring Data noted in No. 6 above can be summarized as follows:

DESCRIPTION	Ground-water	Air	Soils	Surface Water
Hazardous Wastes or Constituents have been detected				
Environmental Standards have been violated				

8) Did the facility submit a 103(c) Notification under CERCLA?

☐ a) Yes

☐ b) No

I believe the facility responded voluntarily to a chemical waste survey conducted by the Eckhardt subcommittee. Facilities that respond

9) If the answer to No. 8 above is yes, did the facility list the same units on the Solid Waste Management Questionnaire as they did on the CERCLA 103(c) Notification Form?

☐ a) Yes

☐ b) No

not required to notify under CERCLA.

I believe all units have been identified on SWM Questionnaire.

B. Summary of Inspection at Facility

1) During the inspection of this facility did the inspector note any evidence of past waste disposal practices not currently regulated under RCRA such as piles of waste or rubbish, ponds or surface impoundments that might contain waste, active or inactive landfills?

☒ a) Yes, Explain

Facility has an inactive landfill closed prior to 11/80.

☐ b) No

☐ c) Cannot Respond to this Question

2) Was there any evidence of discolored soils or dead vegetation that might be caused by a spill, discharge or disposal of hazardous wastes or constituents?

☒ a) Yes, Explain

Soil around tank farm is visibly contaminated. Land farm did not have vegetation when last inspected.

☐ b) No

☐ c) Cannot Respond to this Question

3) Are there any tanks at the facility which are used for waste storage (solid or hazardous) which are located below grade and could possibly leak without being noticed by visual observation?

☐ a) Yes

☐ b) No

☒ c) Cannot Respond to this Question



BLUEPRINT

For Documenting Compliance
with the
RCRA Amendments of 1984
February 1, 1985

Facility Name: Koppers Company Inc. I.D. # MSD007027543

Mailing Address (Facility and Corporate): P.O. Box 160

Grenada MS 38960

436 Seventh Avenue

Pittsburgh PA 15219

Facility Contact: Charles Brush - corporate office

Ray Bartlow, Plant Manager

I. Effect of RCRA Amendments on Facility

- A. Due to the change in the definition of "regulated unit," is the facility subject to corrective action for groundwater contamination?

Yes ☐ No ☐ Don't Know ☐

Comments Facility is subject to corrective action
because surface impoundment receives hazardous
waste.

- B. Is facility "seeking a permit?"

Yes ☒ No ☐

If no, is it permitted? Yes ☐ No ☐

Has it closed? Yes ☐ No ☐

Is closure plan approved? Yes ☐ No ☐

Seeking "clean" closure? Yes ☐ No ☐

Comments Facility is seeking a permit for
drum storage and S.I.

- C. Does the corrective action requirement for inclusion into the permit apply?

Yes ☒ No ☐ Don't Know ☐

Comments G.W. contamination has been detected.

Release presumably from S.I.

Koppers should assess inactive creosote disposal

D. Is there any evidence that clean-up beyond the property boundary may be necessary?

Yes _____ No _____ Don't Know X

Comments _____

E. Is the facility subject to the health/exposure assessment requirements?

As far as I know.
Yes X No _____ Don't Know _____

If yes, is the due date August 8, 1985?

Yes X No _____

If no, when? _____

F. Other effects of amendments on facility:

II. Current Facility Status, as of February 1, 1985

A. Date of last RCRA inspection: 4/26/84

B. Violations found: 265.13 waste Analysis 265.14 Security
265.75 Annual Report 265.77 Reporting 265.90-94 GW monitoring
265.170 Storage in Containers 265.192 Storage in Tanks

C. Has facility corrected above violations?

Yes X No _____ Don't Know _____

Comments Corrections have been made or are on-going (gw monitoring etc.

- D. If facility has not corrected above violations, as of February 1, 1985, what enforcement action has been taken?

Describe nature of action, and dates.

- E. Is facility subject to g.w. monitoring requirements?

Yes X No

If yes:

- a) Date of last g.w. inspection: 7/20/83
b) Compliance status of g.w. system (see attachment for information requested).

"new" wells have been installed at point of compliance.
Company is on an accelerated gw assessment schedule.

- F. Has facility's Part B been called?

Yes X No

If yes, describe efforts for obtaining complete Part B.

5-9-84 Commission Order to submit complete Part B
8-8-84 Amended C.O. " " " "
10-10-84 C.O. (and \$2000 penalty) establishing new deadline (Jan 31, 85)
for submittal of Part B.
Company submitted Part B for storage by Jan. 31.
Part B info for S.I. due Mar. 1.

If facility has submitted intent to close, describe efforts toward obtaining complete closure plan.

If closing, will post closure permit be required?

Yes _____ No _____ Don't Know _____

Comments _____

G. Is facility currently in compliance with the financial requirements for

(a) closure assurance: Yes ☒ No _____

Comments Koppers uses financial test.
Financial requirements for FY84 due by
March 31, 85.

If yes, when does coverage expire? _____

(b) sudden insurance? Yes ☒ No _____

Comments continuous policy - no expiration date

If yes, when does coverage expire? no expiration date

(c) non-sudden insurance? Yes ☒ No _____ N/A _____

Comments same as (b) above

If yes, when does coverage expire? _____

H. Have any other activities occurred, or currently underway, which could affect the compliance status of this facility between now and November 8, 1985?

Yes X No _____ Don't Know _____

Comments Company's practice of burning waste
in boiler needs to be reevaluated.

III. Based on (I) and (II) above, what are the current and projected problems at the site with respect to being in compliance on November 8, 1985?

Current Problems

GW assessment report is not completed.

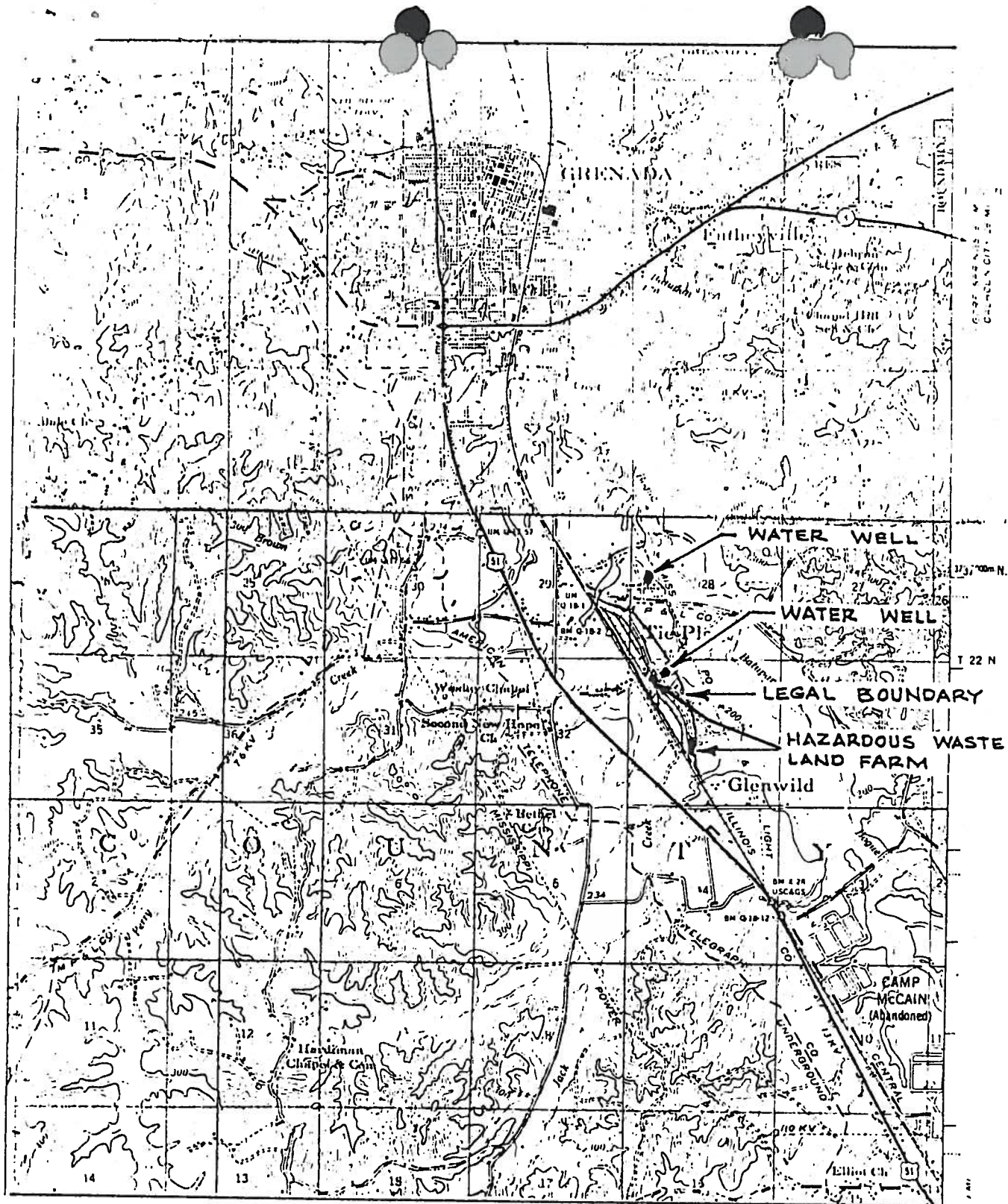
Company's thoroughness in "screening" creosote sludge prior to burning is questionable.

Company should assess inactive creosote disposal area.

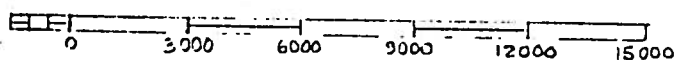
IV. Based on (I), (II), and (III), what actions (e.g., follow-up inspections, enforcement actions, etc.) should be taken in order to bring the facility into compliance by November 8, 1985? [Be sure to factor in those projected dates set forth in the Implementation Plan, where appropriate.]

TSD inspection, gw inspection, and gw sampling scheduled for April. Creosote sludge should be sampled for BTU

If assessment report is not completed by April 1, we should consider issuing another order with target date of May 1. Should expect technically adequate SI, Part B by June 1?



SCALE: 1: 62,500



USGS MAP
M^cCARLEY, MISS.

LOCATION MAP
KOPPERS CO., INC.
GRENADA, MISS.

Form for RCRA Facility Management Plan

Facility Address:

The Plant MS 35900

Agency/Organization:

The Bureau of Pollution

Types of Wastes Handled

✓ Land Farming

100

III. Calendar of Events and Responsible Office for Implementing Priority Actions

I. Facility Analysis

A. Interim Status Compliance Monitoring and Enforcement Summary

The objective of these questions is to determine what is known about the facility's compliance with interim status standards, what is needed to determine compliance and what actions might be appropriate to correct non-compliance.

1. How many and what kind of inspections have been conducted at the facility? List by inspection type (e.g., compliance evaluation inspection or comprehensive groundwater inspection).

compliance evaluation inspections : 4/16/85 ; 4/26/84 ;
7/20/83 ; 4/20/82 ; 6/17/81
groundwater inspection 4/16/83 + 7/20/83
groundwater sampling 7/16/85 + 12/8/82

2. Does a Ground-water monitoring system exist?

✓
Yes No Don't Know Not Required

3. If the answer to "2" is yes, at what stage (detection, assessment, monitoring to develop Part B application data) is the facility in GWM?

assessment

4. If the answer to "2" is yes, is it capable of monitoring both regulated and SWM units?

Yes No ✓
Don't Know

5. If the answer to "2" is no, is failure to have a system a violation of interim status GWM requirements?

Yes ✓
No Don't Know

6. Has enough information been collected to provide a reasonable understanding of the subsurface geology?

Yes

No

Don't Know

7. Have appropriate techniques and data been used to support the placement and depth of wells to determine the facility's impact on the uppermost aquifer beneath the facility?

Yes

No

Don't Know

8. Are the regulatory parameters which are being monitored adequate to detect contamination from the units?

Yes

No

Don't Know

9. If the answer to "8" is no, what other parameters should be monitored to detect contamination?

10. Is the sampling and analysis methodology adequate to detect contamination from the units?

Yes

No

Don't Know

11. Is the existing GWM system in compliance with interim status standards?

Yes

No

Don't Know

12. If the answer to "11" is no, explain the nature of the non-compliance.

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13. If the answer to "11" is no, is there a pending enforcement action against the violator?

Yes

No

Don't Know

14. If the answer to "11" is don't know, is there a compliance inspection or other investigation scheduled?

Yes

✓
No

Don't Know

15. List the types of Class I violations which have been found.

Site monitoring - 1 down gradient wells not located
at point of compliance.

16. List the enforcement actions that have been taken against the facility.

Several A.C. have been issued
regarding completion of Permit Application
+ GWM.

17. Did the owner/operator respond to enforcement actions in a cooperative manner?

✓
Yes

No

Don't Know

18. If the answer to "17" is no, provide examples of how the owner/operator was uncooperative.

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19. If the answer to "17" is yes, provide examples of how quickly the violations were resolved.

Have met compliance dates.

20. What actions are proposed to gather additional information needed to evaluate compliance with key I.S.S. requirements, (i.e. ground-water monitoring, financial assurance, etc.).

*Koppers must certify compliance
with ISS requirements by Nov. 8.*

21. What actions are proposed to correct non-compliance that still exists?

*A.O. was issued in Sept. 25 requiring
submission of complete Part B by Nov. 8, 1985*

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B. Summary of Part B Application Review to Date, Problems, Issues, Actions Needed

1. Key Dates

- 1) Date Part B Called 7/9/83
- 2) Date Part B Received 1/13/84
- 3) Date First NOD Sent 3/19/84
- 4) Date First Revised Part B Received 5/1/84
- 5) Date 2nd NOD Sent 5/11/84
- 6) Date of Enforcement Actions for Deficient Part B _____
- 7) Date 2nd Revised Part B Received 6/12/84
- 8)* 3rd NOD - 8/11/84 Add'l info - 9/12/84
- 9)* AO - 10/19/84 Add'l info - 1/31/85
- 10)* AO - 9/18/85

* Fill in further processing/enforcement actions that have taken place

2. Summarize the principle Part B deficiencies that remain unresolved; cover all major deficiencies but in particular focus on the following:

- Incinerators - Adequacy of Trial Burn Plan
- Land Disposal Units - Adequacy of groundwater data and hydrogeological information required by 430 CFR 270.14(c)
- Has facility "detected" or measured" groundwater contamination?
- Has the facility been required to submit a Corrective Action Plan per §§270.14(c)(8)?

G/H₂O assessment report

Corrective Action Plan

Address spray irrigation field in Part B of

assessment, if necessary

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3. For the deficiencies noted in Item B above describe the most recent action the state has taken to resolve this deficiency (NOD, Enforcement Action, etc.) and the state's or applicant's schedule and methodology for resolving the deficiency.

NO 7/12/82

4. If additional action by the state or EPA is needed to resolve outstanding deficiencies please describe what actions are proposed and what the projected dates are for those actions:

Action Proposed

Projected Date

5. Projected dates for making a final permit determination

Permit Activity

Projected Date

Part B Review and NOD

1/31/86

Enforcement Action for
Deficient Part B

2/15/86

Part B Determined Complete

4/15/86

Draft Permit Prepared

7/21/86

Draft Permit Public Noticed

11/20/86

Public Hearing Held

1/11/87

Permit Issued/Denied

2/11/87

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C. Solid Waste Management Unit/Prior Release Information

1. Has the PA/SI been completed?

☒
Yes

No

2. Are there solid waste management units at the facility?

☒
Yes

No

Maybe

3. If the answer to "2" is maybe, provide the information which prompts suspicion that there may be SWM units.

4. Are the monitoring systems capable of detecting releases from solid waste management units?

Yes

No

Don't Know

5. Is there evidence of releases of hazardous waste or hazardous constituents into the environment at the facility?

☒
Yes

No

Don't Know

6. If the answer to "5" is yes, answer the following:

a. Has the release been adequately characterized?

☒
Yes

No

Don't Know

b. Describe the release in terms of the extent of the release, the constituents of the release, and any other pertinent information.

Approx. 2000 lbs. of hazardous waste released

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7. If the answer to "5" is no or don't know, is there any suspicion of releases at the facility?

Yes

No

Don't Know

8. If the answer to "7" is yes, provide the information which prompts suspicion of releases.

9. If the answer to "7" is yes, is there any planned action to learn more about the possible release?

Yes

No

Don't Know

10. If the answer to "9" is yes, describe the planned action(s).

11. If the answer to "9" is no, describe what action is needed to evaluated nature of releases.

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12. For the activity described in No. 11 above what is the urgency for initiating this activity and what authority should EPA or state use to require applicant to undertake activity.

_____ a. Urgent - Require additional information/data to be gathered by Issuance of Compliance Order Pursuant to:

- _____ Sec. 3013 of RCRA
- _____ Sec. 7003 of RCRA
- _____ Sec. 3008(h) of RCRA

_____ b. Not Urgent - Require additional information/data to be gathered by issuing permit with a compliance schedule for conducting a Remedial Investigation (R.I.)

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D. Evaluation of CERCLA Authority at Facility and Relationship with RCRA

1) Did this facility submit a 103 (c) notification form under CERCLA?

☐ a) Yes

☐ b) No

I believe the facility responded voluntarily to a chemical waste survey conducted by Eckhardt subcommittee. Facilities that did this were not required to notify.

2) If the answer to No. 1 is No, should this facility have submitted a 103 (c) notification form under CERCLA?

☐ a) Yes

☐ b) No

Facility has several SWR units.

3) Has a CERCLA Preliminary Assessment/Site Investigation (PA/SI) been completed for this site?

☒ a) Yes

☐ b) No

4) If a CERCLA PA/SI has been completed for this site summarize briefly the findings focusing on environmental contamination, imminent hazards and wastes found.

5) After reviewing the CERCLA Notification form, the RCRA Part A and Part B applications it appears that:

☐ a) The RCRA units and CERCLA units are one and the same

☒ b) The RCRA units and CERCLA units are clearly different units

☐ c) There is overlap between the RCRA and CERCLA units some are the same and some are different

NOT SURE of GW connections between units.

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6) This facility is (is not) included on the CERCLA National Priorities List (NPL)

☐ a) Yes, it is

☒ b) No, it is not

7) Based on the information noted in Items No. 1, 2, 3, and 4 above and on current guidance from EPA-Headquarters on RCRA-CERCLA interface corrective action for CERCLA units should be handled as follows

☒ a) Totally within the RCRA permit

☐ b) RCRA-CERCLA activities proceed simultaneously with ultimate CERCLA corrective action being written into RCRA permit as a compliance schedule

☐ c) CERCLA action alone

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E. Evaluation of Groundwater Data and Assessment of Need for Interim Status Corrective Action Order

1) A review of Interim Status Groundwater Data and Groundwater Data included in the Part B application indicates:

- ☒ a) There is groundwater contamination that is caused by a RCRA regulated unit. *Maybe a different source other than RCRA unit*
- ☐ b) There is no indication of groundwater contamination caused by RCRA regulated units or Solid Waste Management Units
- ☐ c) Information available is insufficient to conclusively determine the presence or absence of groundwater contamination

2) If (a) or (c) above is checked, please address these questions regarding affected aquifers and water supply wells in the vicinity of the facility

- ☐ a) Aquifers that have or may have contamination are used as a drinking water source and withdrawal wells are located within 2500 ft. of regulated units
- Don't know*
at this time ☐ b) Aquifers that have or may have contamination are used as a drinking water source and withdrawal wells are located more than 2500 ft. from regulated units. Approximate distance is ___ feet.
- ☐ c) Aquifers that have or may have contamination are not used as a drinking water source within a 2 mile radius of facility.

3) For water supply wells that may have groundwater contamination please indicate:

- ☐ a) Water samples have been analyzed and groundwater contamination has been confirmed.
- ☐ b) Water samples have been taken and no contamination is indicated
- ☒ c) No sampling and analysis has been done on water supply wells

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4) Issuance of a RCRA permit to this facility is likely to take:

<u>Time</u>	<u>Mo/Yr</u>
a) 0-6 months	_____
b) 6-12 months	_____
c) 12-18 months	_____
d) more than 18 months	_____

5) Considering the information provided in Items No. 1, 2, 3, and 4 above indicate your evaluation of the need for an interim status corrective action order:

- _____ a) Due to the imminent hazard or potential for an imminent hazard and the time required to issue the RCRA permit, corrective action should begin immediately through the use of an interim status corrective action order (summarize reasons below)
- _____ b) Since an imminent hazard does not appear to exist or since the RCRA permit will be issued shortly, there does not appear to be a need to issue an interim status corrective action order (summarize why below)
- _____ c) Presently available information is not sufficient to reach the conclusions of (a) or (b) above; however, because drinking water wells are utilized in the immediate vicinity of the facility (2500 ft. or less) an enforcement action should be issued to expedite the gathering of appropriate data for items 1, 2 or 3 above (summarize information needed below)

Base decision on...

CONSIDERING THE SOLUTIONS
TO ADDRESS THE PROBLEMS

MAJOR
PROBLEM
IDENTIFIED

Deficient Part B

SOLUTION

Get assessment report,
develop action plan,
and complete Part B.

for surface imperviousness,
storm drainage, etc.
and other things.

POTENTIAL
TOOLS

commission
study project
for 7/85

PROS/CONS

SHORT TERM OBJECTIVE

Complete Part B by Nov. 8, 1985

LONG TERM OBJECTIVE

Final report by 7/86

TIMETABLE OF KEY ACTIONS

KEY ACTION & TOOL	LEAD OFFICE	FY85		FY86		FY87	FY88	FY89
		3rd	4th	1st	2nd			

ACTION: Complete Part B
Include specified

AO-9/18/85

receive Part B
by 11/8/85

NOD-10
2/1/86

TOOL: AO

NOD- 1/31/86
Resubmitted 4-11/5/86

ACTION:

TOOL:

ACTION:

TOOL:

ESTIMATED
RESOURCE COST
PER ACTION

.....
E = EPA, RCRA Enforcement
P = EPA Permits
C = EPA CERCLA Enforcement
SE = State RCRA Enforcement
SP = State Permits
SC = State CERCLA Enforcement

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Hoppera
LOCATION Joe Plant
DATE 7/16/85
INSPECTORS
Jim Hardage
Chuck Estes

met with Jackie Clayton,
Assistant Plant Manager,
and Norman Lindvall,
Treating Supervisor.

REQUIREMENT

SUBPART B - GENERAL FACILITY STANDARDS

265.12 Required Notices

- a) The facility owner or operator must notify the Director at least four weeks in advance of receipt of wastes from a foreign source.

- b) Before transferring ownership or operation of a facility, the facility's owner or operator must notify the new owner or operator of the requirements of 40 CFR 265 and 122.

265.13 General Waste Analysis

Before treating, storing, or disposing of hazardous waste, the facility owner or operator must obtain a detailed chemical and physical analysis of wastes. The analysis must contain all the information which must be known to treat, store, or dispose the waste in accordance with the federal requirements.

265.14 Security to Prevent Unknowing and Unauthorized Access to the Facility

- a) The owner or operator must prevent the unknowing entry and minimize the possibility for unauthorized entry unless:

- 1) physical contact with the waste, structures, or equipment will not be injurious

- 2) disturbance of the waste or equipment will not violate the requirements of Part 265.

Not in compliance - No
Not applicable - NA

Yes	No	N/A

COMMENTS

Waste Analysis plan on file.
Lagoon bottom, water to spray field,
and spray field soil have been analyzed.
Analysis should be included in operating
record.
BTU analyses for waste received from other
Koppers facilities are in operating record.

fence around impoundment.

REQUIREMENT

265.14 - Continued

b) Unless exempt under 265.14 (a) (1) or 402.7-14(a) (2), a facility must have:

1) a 24-hour surveillance system

2) (1) an artificial or natural barrier which completely surrounds the active portion of the facility

(11) a means to control entry

c) A sign warning of the danger of intruding into the facility.

265.15 Inspection and Monitoring

a) The owner or operator must inspect the facility for malfunctions and deterioration, operator errors, or discharges which may be causing or lead to release of hazardous waste constituents to the environment or a threat to human health.

The owner or operator must develop and follow a schedule and plan for inspections.

c) The owner or operator must take remedial action upon the detection of malfunction or the deterioration of equipment and structures when a hazard is imminent.

d) The owner or operator must record inspections in an inspection log and must keep the records for at least three years from the date of inspection.

Not in compliance - no
Not applicable - NA

Yes No N/A

COMMENTS

When plant is in operation, plant personnel are all over the facility 24 hours a day. One individual is stationed around the treating area the rest of the day (4 hours). On week ends and holidays supervisory personnel check the plant daily according to Mr. Lindvall.

Signs are posted around impoundment and stream area where drums of API separator sludge are stored. Signs should be posted around drums on concrete pad next to sludge feeder.

Weekly inspection of drums daily inspection of freeboard and dikes.

REQUIREMENT

265.16 Facility Personnel Training

- a) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of Part 265.
- b) The training program must be completed within six months of the effective date of Part 265.
- c) There must be an annual review of the initial training in (a) above.
- d) The owner or operator must maintain records of training.
- e) Training records on current personnel must be kept until closure of the facility.

265.17 General Requirements for Ignitable, Reactive or Incompatible Wastes

- a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste.
- b) Treatment, storage, or disposal of ignitable or reactive waste and the mixture or commingling of incompatible wastes must be conducted so that it does not:
 - 1) Generate extreme heat or pressure, fire or explosion, or violent reaction;
 - 2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient

Not applicable - NA

Yes No N/A

COMMENTS

Annual review for plant manager and treating supervisor completed 10/18/84. Annual review for other personnel completed 11/7/84.

Company does not handle ignitable or reactive waste.

REQUIREMENT.

265.17 - Continued--

quantities to threaten human health;

3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4) Damage the structural integrity of the device or facility containing waste; or

5) Through other like means threaten human health or the environment.

SUBPART C - PREPAREDNESS AND PREVENTION

Pursuant to 265.30 through 265.37, facilities must be maintained and operated for and prevention of releases of hazardous wastes controlled by the State.

SUBPART D - CONTINGENCY PLANS

Pursuant to 265.56, facilities must have contingency plans and emergency procedures to be followed in the event of a release of hazardous waste.

SUBPART E - MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

265.71(a)(1-5) If a facility receives hazardous waste accompanied by a manifest, the owner or operator must meet the requirements of 265.71(a)(1-5)

265.71(b)(1-5) If a facility receives, from a rail or water transporter, hazardous waste which is accompanied by a shipping paper, the owner or operator must meet the requirements of 265.71.

Not in compliance - NO
Not applicable - NA

Yes No N/A

COMMENTS

11

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✓

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Basically the same as last year. Five trucks, trucker, pumps, etc. available. Have written plans.

Waste received from Green Spring W. Virginia Plant, Day Arkness Plant, Cambridge Elorida Plant, Galesburg Elorida Plant, Navaho New Hampshire Plant, and North Little Rock Plant. All 1984 or 85 shipments. All waste shipped in by truck.

REQUIREMENT

In compliance - yes
Not in compliance - No
Not applicable - NA

COMMENTS

265.72(a) Upon discovery of significant manifest discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter.

(b) If a significant manifest discrepancy is not resolved, the owner or operator must notify the Director.

265.73(b) The owner or operator must keep a written operating record at the facility which meets the requirements of 265.73(b).

265.74(a) All records must be furnished upon request and available at all times for inspection by the Director or EPA.

(c) A copy of records of waste disposal locations and quantities must be submitted to the Director and the local land authority upon closure of the facility.

265.75 The owner or operator must submit an annual report to the Director in compliance with the requirements of 265.75.

265.76 The receipt of any unmanifested waste must be reported to the Director.

265.77 The owner or operator must submit a report to the Director if any of the following occur:

- releases, fires, explosions
- groundwater contamination
- facility closure.

Yes No N/A

Company officials said they have not had any significant manifest discrepancies since the last inspection

1984 and '85 manifests reviewed.

Waste is fed to boiler. Rate of feeding is monitored and records are kept in main office.

Report for '83 was submitted July 13, 1984. Next report is due in 1986.

No releases, fires, explosions since last inspection. Groundwater assessment report due around June 1985.

11
REQUIREMENT.

SUBPART F - GROUNDWATER MONITORING

265.90 Owner or operator must implement a groundwater monitoring program capable of determining the facility's impact on the quality of the upper aquifer within one year of the effective date of 265.90.

265.91 - 265.94 The owner and operator must install, operate, and maintain a groundwater monitoring system which meets the requirements of 265.91 - 265.94.

265.90(c) All of the groundwater monitoring requirements may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste constituents from the facility via the uppermost aquifer below the facility to water supply wells or to surface water.

SUBPART G - CLOSURE AND POST-CLOSURE

265.111 The owner or operator must close his facility in a manner that:

- 1) minimizes the need for future maintenance, and
- 2) controls, minimizes, or eliminates post-closure escape of hazardous waste.

265.112(a) The owner or operator must have a written closure plan on the effective date of Part 265.

11
Not in compliance - No
Not applicable - NA
Yes No N/A

11
COMMENTS

Additional wells have been installed - one upgradient well and four downgradient wells at point of compliance.

Groundwater assessment report due around June 1985.

Updated closure plan (Jan. 84) is in the operating record. Most current closure plan not yet in operating record but has been submitted to Mississippi DNR.

REQUIREMENT.

265.112(a) Continued--

The closure plan must include:

- 1) A description of how and when the facility will be partially closed, if applicable, and ultimately closed.
- 2) An estimate of the maximum inventory of wastes in storage or treatment at any given time.
- 3) Steps to decontaminate facility equipment.
- 4) A schedule for final closure which must include, as a minimum, anticipated dates when wastes will no longer be received, anticipated date for completion of final closure, and intervening milestone dates.

265.113(a) Closure must be initiated within 90 days after receiving the final volume of hazardous wastes.

(b) The owner or operator must complete closure activities within six months after receiving the final volume of wastes.

265.114 Upon completion of closure, all equipment and structures must be properly disposed of or decontaminated.

265.115 The owner or operator and an independent registered professional engineer must certify that the facility has been closed in accordance with the approved closure plan.

Not in compliance - No
Not applicable - NA

COMMENTS

Yes

No

N/A

REQUIREMENT

265.117(a) Post closure care must consist of at least:

- 1) Groundwater monitoring
- 2) Maintenance of the contaminant system.

The owner or operator must have a post-closure plan on the effective date of Part 265 and it must include:

- 1) Groundwater monitoring activities and frequency.
- 2) Maintenance activities and frequencies to ensure the integrity of the cap, final cover, or other containment structures, and functions of the facilities monitoring equipment.

265.119 Within 90 days after closure, the owner or operator must submit a survey plat of the facility.

265.120 The owner or operator must record a notice on the deed that the land has been used to manage hazardous waste.

SUBPART H - FINANCIAL REQUIREMENTS

265.142(a) The owner or operator must develop and maintain a current estimate of closure and post-closure costs.

SUBPART I - OTHER FACILITY STANDARDS

265.170 - 265.172 The container must be compatible with the waste to be stored.

Not in compliance - No
Not applicable - NA

Yes

No

N/A

COMMENTS

Groundwater measurement ^{report} to be submitted around June 1985. Post closure requirement, if applicable, will be addressed as part of the Part B permit application review process.

Financial information for 1985 has been submitted to Mississippi DOR. Our review has not yet been completed. Company uses financial test.

Wastes are stored in 55 gal. steel drums. Wastes are not ignitable or reactive.

REQUIREMENT

Not applicable - NA

Yes No N/A

265.173 Containers holding hazardous waste must be kept closed and must not be opened, handled, or stored in a manner which may cause a rupture or leak.

265.174 Areas where containers are stored must be inspected weekly.

265.176 Containers holding ignitable or reactive waste must be located at least 15 meters from the facility's property line.

265.177(a) Incompatible wastes must not be placed in the same container.

(b) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby must be separated or protected from the other materials.

SUBPART J - TANKS

265.192(b) Hazardous waste must be placed in a tank if they could cause the tank or its liner to leak.

(c) Uncovered tanks must have a least two feet of freeboard unless other containment structures, a drainage control system, or other diversion structures with a capacity that equals or exceeds the volume of the top two feet of the tank.

(d) Tanks which have a continuous feed system must be equipped with a means to stop the inflow.

COMMENTS

wastes are collected in dumpsters in process area. wastes are then shoveled into drums, sealed, labeled, and moved to drum storage area.

No signs of leakage.

Waste generated on-site from creosote/water separator is drummed and stored separately from other waste. Storage area is diked and lined with virginex.

Wastes received from other Koppers facilities are stored on concrete pad next to sludge feeder.

Storage building to be built.

API separator tank and flocculation separator tanks not included on Part A. Should be included in Part B.

Uncovered tanks have sufficient freeboard. One checked daily. This should be included in inspection logs.

Influent is controlled by gravity flow and manually operated valves. Overflow goes to impoundment.

1 REQUIREMENT

Not applicable - NA

COMMENTS

265.193 Waste analysis must be conducted pursuant to 265.13, and 265.193(a)

265.194 Tanks must be inspected in accordance with 265.194.

265.197 At closure, all hazardous waste and hazardous waste residues must be removed from the tanks.

265.198 Ignitable or reactive waste should not be placed in a tank unless 265.198 is complied with.

265.199 Incompatible wastes must not be placed in the same tank unless 265.176 is complied with.

SUBPART K - SURFACE IMPOUNDMENTS

265.222 Must maintain at least two feet of freeboard.

265.223 Earthen dikes must have protective cover.

265.225 Must conduct waste analyses and trial tests in accordance with 265.225.

265.226(1) Must inspect the freeboard level at least once each operating day.

(2) Must inspect the surface impoundment at least once a week to detect any leaks, deterioration, or failure.

265.228 The surface impoundment must close in accordance with 265.228.

Yes

No

N/A

Plenty of freeboard.

Cover is not continuous.

Lagoon bottoms have been sampled and analyzed.

REQUIREMENT

265.229 Ignitable or reactive waste must not be placed in a surface impoundment unless 265.229 is complied with.

265.230 Incompatible wastes must not be placed in the same surface impoundment unless 265.17(b) is complied with.

SUBPART L - WASTE PILES

265.251 A waste pile must be protected and managed to control wind dispersal.

265.252 An owner or operator must conduct waste analyses unless the facility meets the exemptions of 265.252.

265.253 Within one year after the effective date of the regulations, leachate or run-off from a pile must be controlled pursuant to 265.253.

265.256 Ignitable or reactive waste must not be placed in a waste site unless 265.256 is complied with.

265.257 The requirements of 265.257 for incompatible wastes must be complied with.

SUBPART M - LAND TREATMENT

265.272(a) Hazardous waste must not be placed at a land treatment facility unless it can be made less hazardous or non-hazardous.

(b) Run-on must be diverted away from other active portions as of one year after the effective date of Part 265.

Not applicable - NA

Yes

No

N/A

COMMENTS

Mississippi DNR intends to regulate spray irrigation field under Part B.

No significant build-up of sludge.

Runoff is controlled by dike.

Area is covered with grass.

Standing water noted in two low areas.

next to dike - no problem.

Barrow is controlled manually and by timer.

REQUIREMENT

265.272 -- Continued

(c) Run-off from active portions must be collected as of one year after the effective date of Part 265

265.273 Waste analyses must be conducted pursuant to 265.273.

265.276(a) An owner or operator must notify the State Director within 60 days after the effective date of Part 265 if food chain crops are grown on the land treatment facility.

(b) Food chain crops must not be grown on the treated area of a hazardous waste land treatment facility unless 265.276(b) is complied with.

(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless 265.276(c) is complied with.

265.278 The owner or operator must have in writing and must implement an unsaturated zone monitoring plan pursuant to 265.278.

265.279 The owner or operator must keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in a facility.

265.280 A land treatment facility must meet the closure and post-closure requirements of 265.280.

Not applicable - NA

Yes

No

N/A

COMMENTS

11

Water to spray field and spray field soil has been analyzed.

Spray irrigation field not included on Part A or Part B.

Not in compliance - No
Not applicable - NA

COMMENTS

Yes

NO

N/A

Yes

NO

N/A

Yes

NO

N/A

Yes

1
REQUIREMENT

265.315 (1) Empty containers must be reduced in volume as of one year after the effective date of Part 265.

SUBPART 0 - INCINERATORS

265.343 Must be at steady state conditions before adding hazardous waste.

265.345 Waste analyses must be conducted pursuant to 265.345.

265.347 Monitoring and inspections must be conducted as delineated in 265.347.

265.351 At closure, the owner or operator must remove all hazardous waste and hazardous waste residues.

SUBPART P - THERMAL TREATMENT

265.373 Must be at steady state conditions before adding hazardous wastes.

265.375 Waste analyses must be conducted pursuant to 265.375.

265.377 Monitoring and inspections must be conducted as delineated in 265.377.

265.301 At closure, the owner or operator must remove all hazardous waste residues.

265.382 Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives.

NOT APPLICABLE - YES NO N/A

COMMENTS

Create and pent waste are burned in boiler. Wastes are automatically fed/mixed with sawdust. Rate of feed is controlled by temperature in boiler. Shipments received from other Koppers facilities are analysed for BTU value. Analyses are kept in operating record.

REQUIREMENT

SUBPART Q - CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT

265.401(a) Must comply with 265.17(b)

(b) Hazardous waste must not be placed in the treatment process or equipment if any failure of equipment or the process would occur.

(c) A continuously-fed process must be equipped with a means to stop the inflow.

265.402 Waste analyses and trial tests must be conducted pursuant to 265.402.

265.403 Inspections must be made pursuant to 265.403.

265.404 At closure, all hazardous waste and hazardous waste residues must be removed.

265.405 Ignitable or reactive waste must not be placed in a treatment process unless 265.405 is complied with.

265.406 Incompatible wastes must not be placed in the same treatment process unless 265.17(b) is complied with.

SUBPART R - UNDERGROUND INJECTION

265.430(a) underground injection of hazardous waste is not subject to the closure and post-closure or financial requirements of Part 265. Underground injection is subject to the other requirements of Part 265.

Not applicable - NA

Yes

No

N/A

COMMENTS

REQUIREMENT

Other questions or standards.

Are there any other generators transporting their waste to this hazardous waste management facility?

Not applicable - NA
Yes No N/A

✓

COMMENTS

Greenburg W. Virginia
Hing Ark.
Gaimesville 38.
Galeburg Ill.
Mauba, N.H.
North Little Rock
(all of the above are Koppers Plants)

LISTING BACKGROUND DOCUMENT

WOOD PRESERVING

Wastewater from wood preserving processes that use creosote or pentachlorophenol (T)

Bottom sediment sludge from treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol (T)

I. Summary of Basis for Listing*

Wood preserving processes that use creosote or pentachlorophenol as preserving agents generate a wastewater, which contains toxic phenolic compounds including pentachlorophenol, volatile organic solvents such as benzene and toluene, and polynuclear aromatic (PNA) components of creosote. Treatment of this wastewater results in the generation of a bottom-sediment sludge that must be removed for ultimate disposal. The Administrator has determined that wastewater from these wood preserving processes and the resulting bottom sediment sludge are solid wastes that may pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of or otherwise managed, and therefore should be subject to appropriate management requirements under Subtitle C of RCRA.

*Based on available data, and in response to industry comment, the Agency has modified this listing. Waste streams from wood preserving processes using waterborne inorganic preservatives are not included in the listings of this document. However, although limited data is currently available on the sludges generated from these wood preserving processes (i.e., from work tanks, cylinders or storage tanks), the Agency plans to study these wastes in the future to determine whether they should also be listed.

This conclusion is based on the following considerations:

- 1) The wastewater generated from wood preserving processes using pentachlorophenol as a preservative and the sludge generated from the treatment of this wastewater will contain significant concentrations of toxic phenolic compounds and volatile organic solvents such as benzene.
- 2) The wastewater from wood preserving processes that use creosote and the sludges generated from the treatment of this wastewater will contain significant concentrations of toxic polynuclear aromatics components of creosote and volatile organic solvents such as toluene. Wastewater and resulting sludges from wood preserving operations that use both creosote and pentachlorophenol as preservatives will generate waste streams which contain all or most of the above contaminants.
- 3) Polynuclear aromatics, as a group, are known to be toxic, mutagenic, teratogenic and carcinogenic. Phenolics are toxic and, in some cases, bioaccumulative and carcinogenic substances. Benzene and toluene are relatively toxic, and benzene is a carcinogen.
- 4) Approximately 200,000,000 gallons of wastewater are generated annually. About 90 percent of this wastewater is treated by treatment methods which generate a bottom sediment sludge.
- 5) Treatment of wastewater in evaporation ponds or lagoons, could lead to the environmental release of hazardous constituents and result in substantial hazard via groundwater or surface water exposure pathways. Evaporation of wastewater in ponds, lagoons or by other treatment methods, if mismanaged, could lead to the release of hazardous constituents into the atmosphere and result in substantial hazard via an air exposure pathway.
- 6) Off-site disposal in landfills is the most commonly used disposal method for these sludges. This presents the possibility of the toxic components in the sludge migrating to nearby underground drinking water sources, if the landfill is improperly designed or operated.
- 7) The Agency has been informed that incineration is another (though less frequently used) disposal

method for these sludges. If improperly managed, incineration could result in the release of hazardous vapors to the atmosphere, presenting a substantial hazard via an air exposure pathway.

11. Sources of the Wastes and Typical Disposal Practices

A. Industry Profile and Manufacturing Processes

There are approximately 415 wood preserving plants operated by about 300 companies in the United States. The plants are concentrated in two areas, the Southeast from east Texas to Maryland and along the Northern Pacific coast. These areas correspond to the natural ranges of the southern pine and Douglas fir-western red cedar, respectively (2).

Approximately 240 million cubic feet of wood are treated each year (1), principally for railroad ties, utility poles, and lumber for construction materials. Of the 250 million cubic feet of wood treated annually, it is estimated that approximately 85 percent is treated with creosote or pentachlorophenol based preservatives as shown in Table 1 (4). The total quantity of preservative consumed in 1975 during these treatment cycles is shown in Table 2.

B. Process Description

At plants using creosote or pentachlorophenol-based preservatives, wood products are treated by chemical processes to increase their resistance to natural decay, attack by

TABLE 1

VOLUME OF WOOD TREATED IN 1975 BY PRESERVATIVE (4)

Preservative Type		Quantity of Wood Treated (million cubic feet)
Oil Borne 85%	Creosote and creosote-coal tar	110.5
	Creosote-petroleum	32.1
	Creosote-pentachlorophenol	0.9
	Petroleum-pentachlorophenol	60.8
Waterborne 15%	Chromated copper arsenate (A,B,C)	29.9
	Fluor-chrome-arsenate-phenol	1.8
	Chromated zinc chloride	0.5
	Acid copper chromate	1.4
	All other preservatives	1.8

TABLE 2

QUANTITY OF PRESERVATIVES USED IN 1975.

LIQUIDS:

Creosote	96.3 million gallons (0.84 gal/cu ft)
Coal Tar	23.6 million gallons (added to above)
*Petroleum (with PCP)	48.7 million gallons (0.80 gal/cu ft)
*Petroleum (with creosote)	16.7 million gallons (0.52 gal/cu ft plus creosote)

SOLIDS:

Pentachlorophenol	35.5 million pounds (0.58 lb/cu ft plus petroleum)
Chromated Copper Arsenate	15.9 million pounds (0.55 lb/cu ft)
Other Solids (zinc, fluor, chromate, etc.)	4.5 million pounds (0.82 lb/cu ft)

*The petroleum listed in Table 2 acts as a dissolving and/or carrying medium for the preservatives with which they are used.

insects, micro-organisms, or fire. Briefly, the treatment consists of debarking, forming, drying, impregnation of preservative, and storage (3).

The two major wood preserving processes, producing large quantities of wastewater and sediment sludge, are called steaming and boultonizing.* Both these processes are pressure processes and differ mainly in the way the wood is conditioned before or during the application of the preservative. Figures 1a-1e present flow diagrams for the major wood preserving processes (Source: Reference 19).

Steaming is used principally on southern pines. In this process, the stock is normally steamed for 1 to 16 hours at about 120°C to reduce the wood's moisture content and render it more penetrable to preservatives. After steaming, the preservative is added to the same retort. Condensate removed from the retort after steaming is contaminated with entrained oils, organic compounds, and wood carbohydrates.

In the boulton process, used principally on Western Douglas fir, the wood is already immersed in the preservative, placed under vacuum, and then heated in the retort at approximately 100°C. The vapor removed is composed of water, oils, organic compounds and carbohydrates from the wood. Contaminated vapors from both the steaming and boultonizing processes are

*Vapor drying is another wood preserving process, also generating a wastewater and sludge of concern.

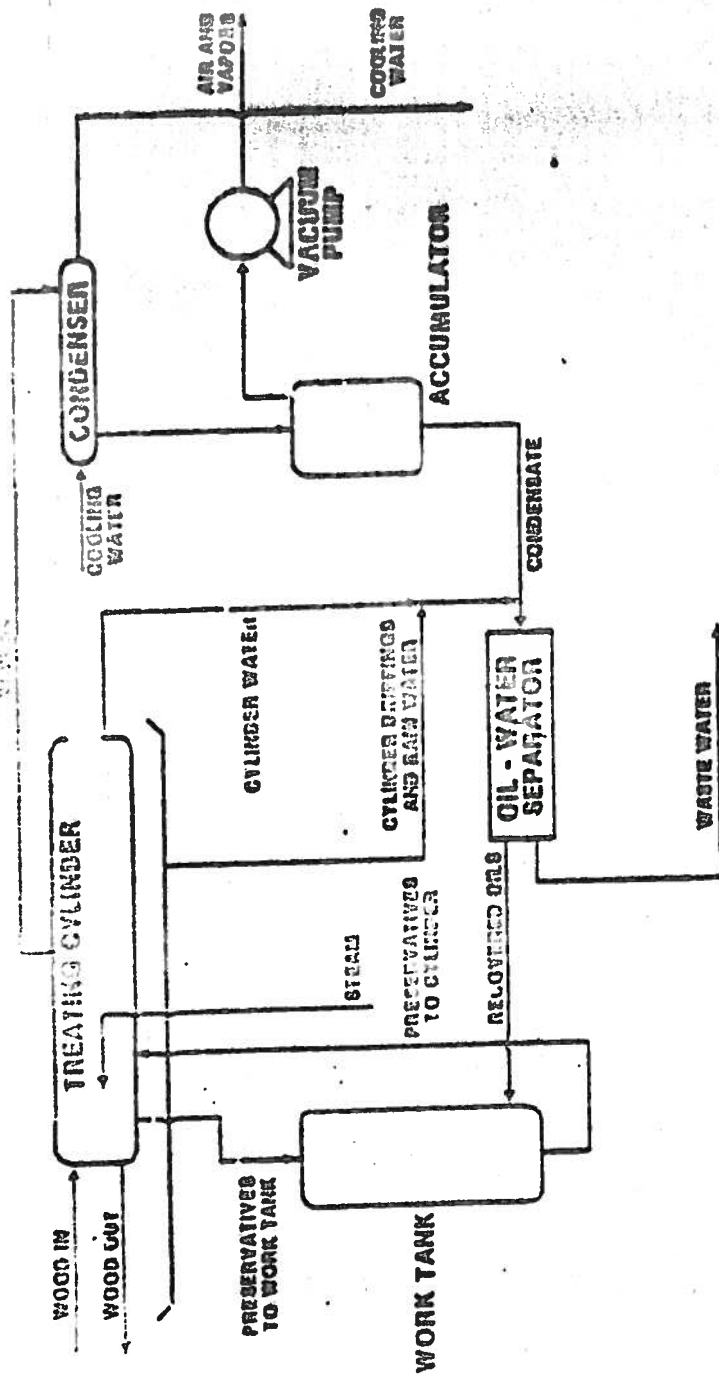


Figure 1a OPEN STEAMING PROCESS WOOD TREATING PLANT

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-117-

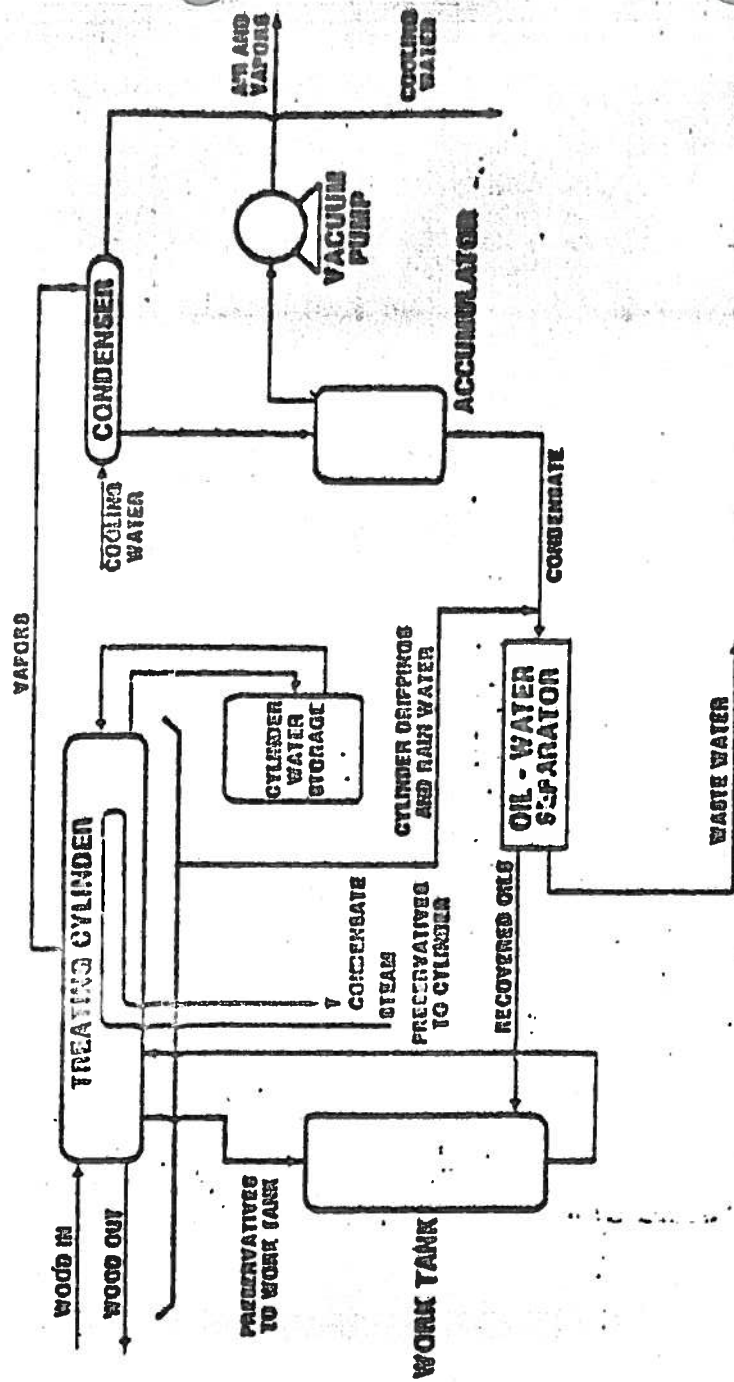


Figure 1b - CLOSED STEAMING PROCESS WOOD TREATING PLANT

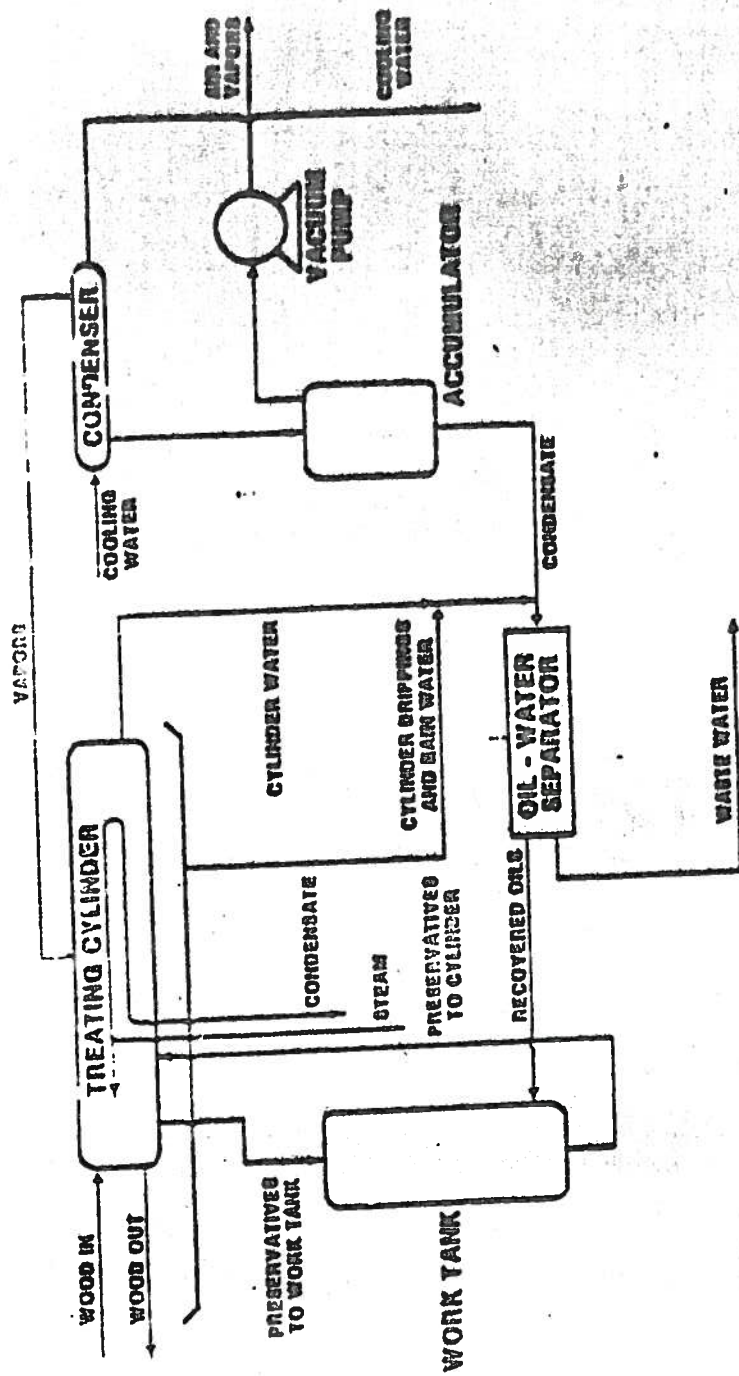


Figure 1c . . MODIFIED STEAMING PROCESS WOOD TREATING PLANT

24-
1/19

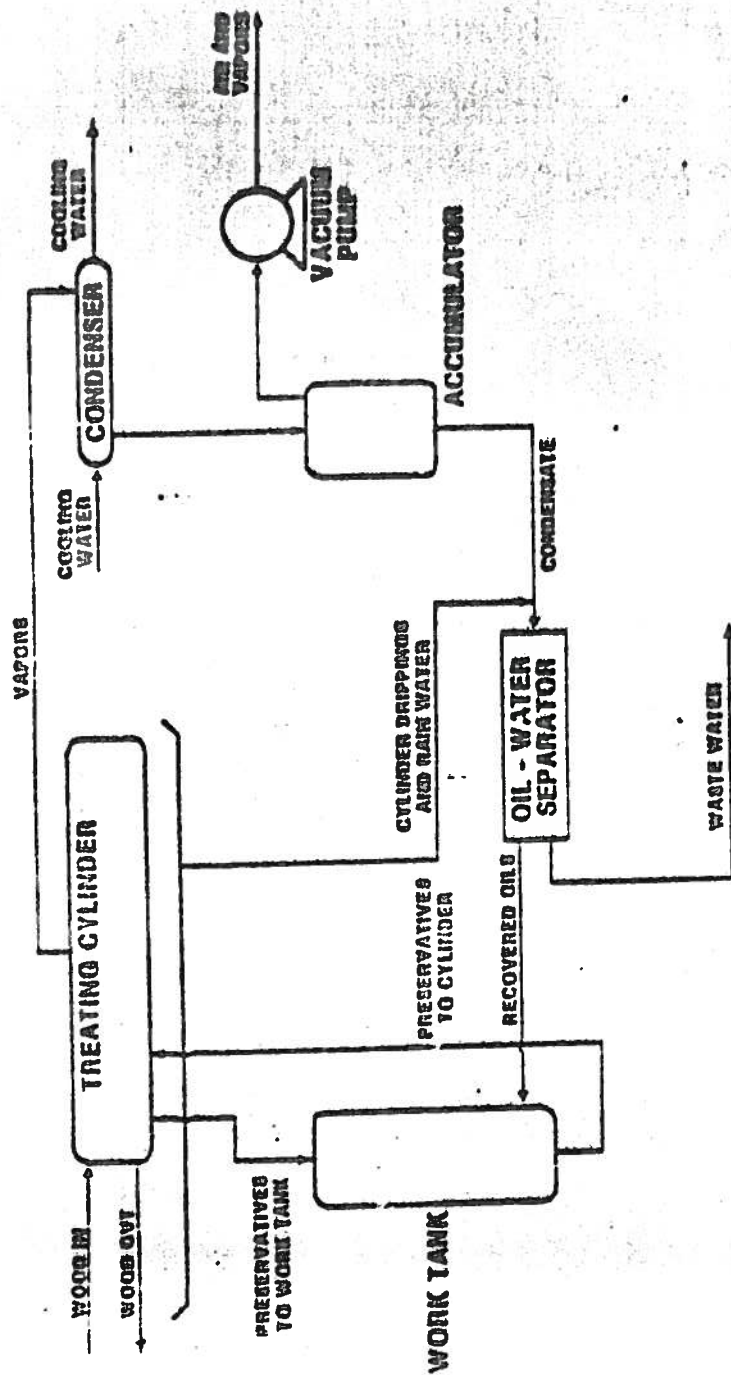


Figure 1d BOULTON WOOD TREATING PLANT

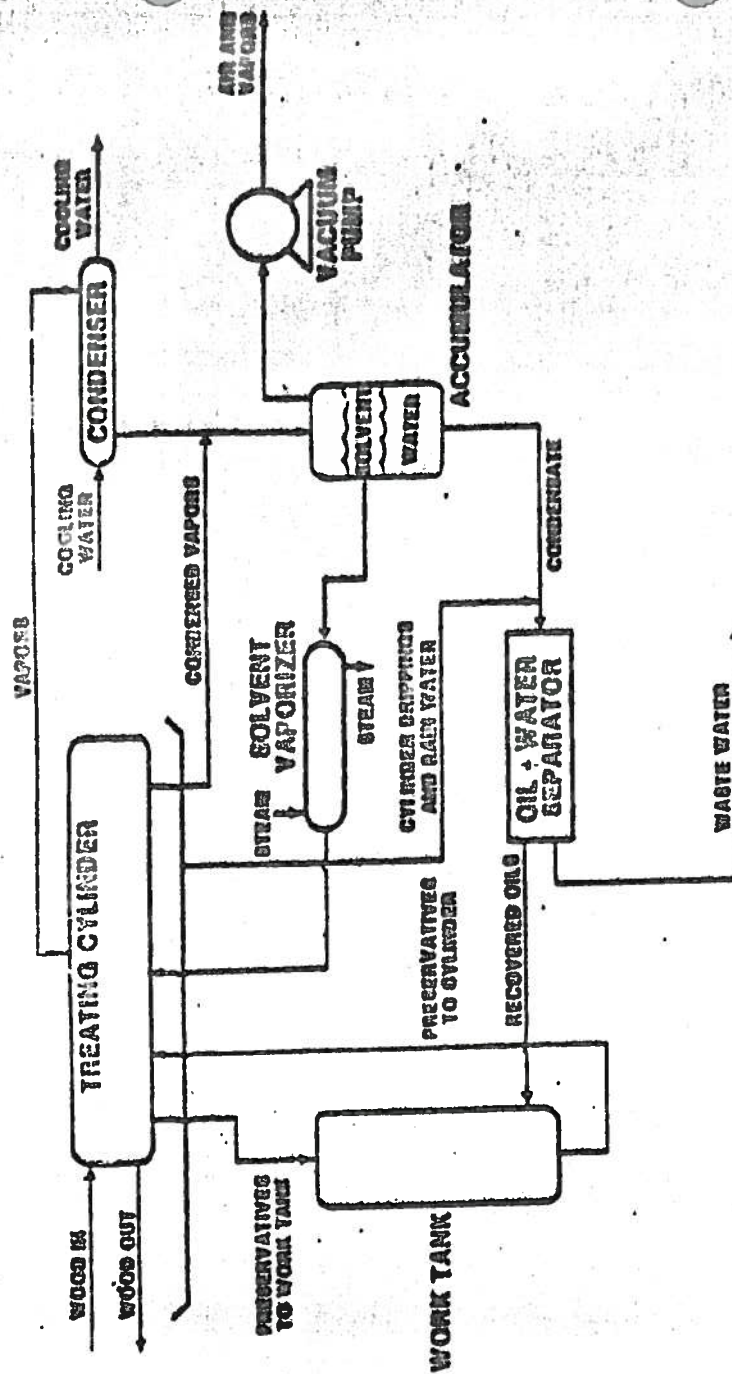


Figure 1e VAPOR CONDITIONING PROCESS WOOD TREATING PLANT

condensed and transported to an oil/water separator to reclaim any free oils and preserving chemicals before treatment and/or disposal of the wastewater, usually an oil/water emulsion. (17,18) X

II. Generation, Composition, and Management of Listed Waste Streams (17,18)

A. Generation

Based on the quantity of wood treated with creosote or pentachlorophenol preservatives in 1975, and assuming that about one gallon of wastewater is generated per cubic foot of wood treated, approximately 200 million gallons of wastewater will be generated annually.

About 90% of this wastewater is treated by treatment methods that generated a bottom sediment sludge. The remaining wastewater is typically discharged directly, to POTW's. The listing covers both of these instances.*

Table 3 shows estimates of the amounts of sludges generated by creosote and pentachlorophenol preserving processes, and the amount of hazardous constituents contained in the wastes.

*The listing does not include wastewater discharged from a point source regulated under §402 of CWA. This listing also does not include any wastewater which is mixed with domestic sewage and that passes through a sewer system before it reaches a publicly owned treatment works (POTW) for treatment. "Domestic Sewage" means untreated sanitary wastes that passes through a sewer system.

**TABLE 3. POTENTIALLY HAZARDOUS SOLID WASTES FROM THE
WOOD PRESERVING INDUSTRY (8)***

(Source: American Wood Preserver's Association (1979))

<u>Total Process Solid Waste metric tons/yr</u>	<u>Total Potentially Hazardous Constituents metric tons/yr</u>
Creosote-oil emulsion 230-930	Creosote 1.1-4.6
Penta-oil emulsion 600*	Pentachlorophenol 3.0

Note: Although these wastes are listed in the table in terms of amounts generated per year, many of the wastes are generated on a periodic basis which often can be as long as five years (8). Thus, the sludges may be allowed to sit at the bottom of wastewater treatment ponds for five years at a time.

*Estimated maximum amount.

B. Composition

Table 5 presents a list of some of the typical organic compounds found in wood treating plant wastewaters.* Bottom sediment sludge from wood preserving plants contains primarily creosote, polynuclear aromatics (aromatic compounds), chlorinated phenols and volatile organic solvents such as toluene and benzene, as listed in Table 6.

According to data taken from California State hazardous waste manifests, (7) this waste may contain 5-20% pentachlorophenol.

EPA has tested samples of bottom sediment sludge and found that it contains polynuclear aromatic hydrocarbons and phenolic compounds. Many wood processing plants, such as the two listed below, may use both creosote and pentachlorophenol based processes and thus treat the wastewater generated by these processes in a combined treatment system. Thus, sludge samples from one plant may contain both creosote compounds and phenolic compounds. The pertinent information from two plant's sludge samples (Plants 10 and 11) is summarized below:**

*Approximately 125 wood preserving plants use both organic and inorganic preservatives. Although the systems are kept separate, cross contamination of chemicals may occur through exchange of dollies used to transport the wood and drippage from the inorganic into the organic operation. Thus, wastewater from organic wood treatment processes often contains inorganic materials.

**For details of sampling program and further information, see Reference 6.

TABLE 5. HAZARDOUS ORGANIC COMPOUNDS FOUND IN WOOD PRESERVING PLANT WASTEWATER. (17)

Using Pentachlorophenol

Phenol
2,4-Dichlorophenol
2,4,6-Trichlorophenol
4-Nitrophenol
4,6-Dinitro o-cresol
Tetrachlorophenol
Pentachlorophenol
Benzene*

Using Creosote

Toluene*
Fluoranthene
Naphthalene
1,2-Benzanthracene
Chrysene

TABLE 6. HAZARDOUS ORGANIC COMPOUNDS FOUND IN WOOD PRESERVING PLANT BOTTOM SEDIMENT SLUDGE (17)

Creosote Polynuclear Aromatics

Benz(a)anthracene
Benzo(a)pyrene
Chrysene

Phenolics**

Phenol
2-chlorophenol
Pentachlorophenol
2,4-dimethylphenol
2,4,5-trichlorophenol

*Certain volatile compounds in the wastewater, such as toluene and benzene, may volatilize completely during the evaporation process and thus may not appear in the sludge.

**A test conducted on a cooling tower sludge at a plant treating with pentachlorophenol revealed the presence of octa-chlorodibenzo-p-dioxin as well as phenolics. The presence of this dioxin and the possibility of the presence of other more hazardous dioxins (such as TCDD) is of great concern to the Agency since various chlorinated dibenzo-dioxins are known carcinogens, mutagens and teratogens (IARC Monographs on the Evaluation of Carcinogens Risk of Chemicals to Man, Vol. 15).

However, the Agency is not listing these waste streams for the presence of these constituents until further information of the presence and fate of dioxins in the waste is made available.

Plant 10

Bottom Sediment Dry Weight (mg/kg) (6)

Polynuclear Aromatics

Aerated Lagoon

Final Pond

Benz(a)anthracene	3,700	149
Chrysene	4,500	2,060

Phenolics

Phenol	9,030	16,000
2,4-dimethylphenol	4,398	3,418
2-chlorophenol	396,000	1,200
2,4,6-trichlorophenol	No data	25,000
Pentachlorophenol	302,000	58,000

One sediment waste sample was taken from an aerated lagoon;
the analytical data for this plant are summarized below:

Plant 11

Bottom Sediment Dry Weight (mg/kg) (6)

Polynuclear Aromatics

Aerated Lagoon

Benzo(a)anthracene	1,250
Benzo(a)pyrene	5,980
Chrysene	9,280

Phenolics

Phenol	4,500
2-chlorophenol	300
Pentachlorophenol	4,800

Additionally, a contractor/hauler that disposes of
bottom sediment sludge for a wood treatment plant has provided
an analysis of the waste for EPA (3). The analysis is as
follows:

~~15~~
-15-

<u>Component</u>	<u>Concentration, mg/l(6)</u>
Total phenols	5,043
Pentachlorophenol	34
Dinitrophenol	24
Creosote	10,000

C. Typical Disposal Practices

These plants typically dispose of their wastewater streams by one of two treatment methods, namely evaporation or combined biological and irrigation process.

In the evaporation treatment process, water is evaporated off, leaving the bottom sediment sludge. Currently there are four principal evaporative methods: still ponds, pan evaporators, stripper/cooling towers and spray ponds. All four methods produce bottom sediment sludge.

A still pond depends on the natural evaporation of water from the pond surface. A pan evaporator adds heat to the wastewater in order to accelerate evaporation. (In both cases, a sludge remains in the evaporation vessels.)

In a stripper/cooling tower, wastewater is pumped to the top of the tower and flows down slatted surfaces in contact with the air. Sludge accumulates in the base of the tower and is removed when its build-up hinders tower performance.

A spray pond uses a high-pressure pump and nozzle assembly to spray wastewater droplets into the air. The resulting large droplet surface area contacts the air, promoting evaporation. Again, the accumulated sludge remains in the

When sufficient sludge residue has been accumulated, it is removed from the bottom of the evaporation device and transported to a dry bed. The sludge is typically disposed of in an off-site landfill (6).

The second (although less typical) method used by wood preserving plants is a combined biological and irrigation process. This process consists of (1) settling, (2) storage, (3) aerated treatment, (4) spray irrigation, and (5) runoff storage. Rainfall runoff water is collected in a storage pond, recycled through spray nozzles, and then bled into a settling basin for treatment. The wastewater flow at a particular plant equipped with this type of treatment system averaged approximately 50,000 gallons a day. (6) Wastewater flows from the settling basin to a storage pond, and then into an aerated lagoon. The wastewater remains in both the storage pond and the aerated lagoon for 40 to 60 days. From the aerated lagoon, the wastewater is intermittently pumped and sprayed through spray nozzles onto a planted field. Runoff from this field is collected in a runoff storage pond. Sludge is generated in this treatment system on the bottom of the aerated lagoon (6); typically the sludge is disposed in an off-site landfill.

The Agency, believes that incineration is another, though less frequently used, disposal practice for these sludges.

III. Discussion of Basis for Listing

A. Hazardous Properties of the Waste

As discussed earlier, the most commonly used wood preservatives are pentachlorophenol and creosote. The principal toxic pollutants in wastewater from plants that treat with these preservatives are phenolic compounds, volatile organic solvents such as benzene and toluene, and polynuclear aromatic hydrocarbon components of creosote.

Phenolics are toxic and, in some cases, bioaccumulative and carcinogenic. Polynuclear aromatics, as a group, are known to be toxic, mutagenic, teratogenic and carcinogenic. Benzene and toluene are relatively toxic, and benzene is a carcinogen.

B. Migratory Potential of Hazardous Constituents

In light of the extreme danger posed by these waste constituents, the Agency would require some assurance that these waste constituents will not migrate and persist to warrant a decision not to list these waste streams. No such assurance appears readily available.

Many of these waste constituents, in fact, have proven capable of migration, mobility and persistence. Chrysene, naphthalene, benz(a)anthracene, and benzene have been detected in rivers, demonstrating ability to persist. Naphthalene and benzene have been identified in finished

drinking water and wells, demonstrating ability to migrate to drinking water sources and to persist. (20)

The migratory potential and persistence of phenol, benzene, toluene, trichlorophenol and dichlorophenol is confirmed by the fact that these constituents have been identified in samples taken at the Love Canal site in Niagara, New York. Toluene and benzene have migrated from the Love Canal site into surrounding residential basements and solid surfaces, demonstrating ability to migrate through soils. Toluene, benzene and dichlorophenol have also been found in school and basement air at Love Canal, demonstrating ability to migrate and persist in the air. (See "Love Canal, Public Health Bomb, a Special Report to the Governor and Legislature", New York State Department of Health (1978).)

Studies on biodegradability* indicate that under specific idealized conditions, pentachlorophenol is biodegradable (9,10,11). Pentachlorophenol has been shown to be degradable

*Comments were received from industry that the Agency failed to take into consideration the biodegradability of waste constituents in listing wastewater sludges. This document now discusses biodegradability of constituents of wastewater and wastewater treatment sludge.

In addition, some comments were received stating that a hazardous waste designation would discourage biological treatment of wastewater. Where biological treatment, in fact, proves successful in degrading hazardous constituents, the delisting mechanism provides generators a means of avoiding hazardous waste status for their treatment sludges.

Furthermore, the Agency's legal obligation is to list wastes based on their potential to cause substantial harm if mismanaged, and the comment does not even challenge that such hazard may result. Finally, a hazardous waste designation may encourage biological treatment, since it may prove easier to obtain a permit for this type of waste management.

when composted in permeable soil at pentachlorophenol concentrations of 200 ppm or less. Under these conditions, at least 98% of the PCP can be destroyed in about 200 days (12). However, biodegradation is feasible only if the microorganisms have been acclimated to pentachlorophenol and the pentachlorophenol concentration is carefully controlled (13). As mentioned before, typical concentrations of pentachlorophenol in the sludge range from 5 to 20 percent or 5000 to 200,000 ppm, although concentrations as high as 302,000 have been reported (see p. 10). The sludge, therefore, would need to be combined with noncontaminated permeable soil in a ratio of 1:20 in order to ensure that the reported level of degradation at the disposal site is possible.

Furthermore, presence of harmful constituents in such high concentrations in sludge samples taken at two plants which treated wastewater with nutrient addition (see pp. 10-11)--with high concentrations being present at one plant in both the aerated lagoon and final retention pond--shows that the constituent may persist in these sludges even after biological treatment (i.e., won't fully biodegrade).

Studies on pentachlorophenol leaching have shown that water contamination from soil leaching is low (10,12). Also, this contaminant tends to be bound by the soil, limiting the possibility for migration (10,12). In one laboratory study on soils containing between 100 and 300 ppm pentachlorophenol, the leachate, due to an equivalent of 1/2 to 1 inch of rainwater,

contained less than 0.01 percent of the original pentachlorophenol in the soil (4). Again, however, these studies were conducted on soils with PCP concentrations well below the levels reported in the California State hazardous waste manifests, and, as noted above, phenolic compounds have demonstrated ability for mobility and persistence.

Creosote compounds have also demonstrated ability for mobility and persistence. An actual damage incident of surface and groundwater contamination due to improper management of creosote-containing wastes confirms the migratory potential, mobility and persistence of the waste constituents in these wastes. In the 1950's, waste chemicals including creosote and other types of wood preserving oils were injected into wells in Delaware County, Pennsylvania. The injected wastes migrated into groundwater, infiltrated a storm drain sewer, and discharged into a small stream, causing biological damage. Although injection of the wastes into the wells ceased in the 1950's, contamination was first observed in 1961.(21) Thus, the waste constituents proved capable of migration via both ground and surface waters, and were able to persist and cause damage for a long time.

Since large quantities of bottom sediment sludge containing such large concentrations of harmful constituents are

disposed of in landfills or sometimes allowed to accumulate at the bottom of ponds and lagoons for long periods of time, attenuative capacity of the environment surrounding these facilities could be reduced or used up.

Finally, many of the constituents of concern are highly bioaccumulative in environmental receptors.

Benz(a)anthracene and pentachlorophenol are extremely bioaccumulative with octanol/water partition coefficients of 426,579 and 102,000, respectively. Tetrachlorophenol, trichlorophenol and dichlorophenol are also highly bioaccumulative with octanol/water partition coefficients of 12,589, 4,169 and 1,380, respectively (App. B).^{*} Thus, the possibility that waste constituents could accumulate in harmful concentrations if they reach a receptor further supports a hazardous waste listing.

In light of the above and of the extreme dangers to human health and the environment posed by these constituents, there is insufficient indication of environmental degradation and inability to migrate to justify a failure to list this waste as hazardous.

^{*}An octanol/water coefficient of 100 means that after an aqueous solution of the test compound is intimately mixed with octanol and allowed to separate, there will be 100 times as much of the test compound in the octanol than in the water. Solubility of a substance in octanol models its solubility in body fat tissue and is, therefore, indicative of bioaccumulation potential.

C. Exposure Pathways

Mismanagement of these wastes, therefore, could lead to environmental contamination since constituents are available for release and persist following release. Thus, as previously noted, the wastewaters generated by wood preserving operations are typically treated by evaporation or by a combined biological and irrigation process. Bottom sediment sludge, generated by the treatment of the wastewater, is typically disposed of in an off-site landfill, although incineration is another possible disposal method.

The treatment of wastewater in ponds and/or lagoons, if mismanaged, could also lead to the release of hazardous constituents, particularly in light of these constituents' demonstrated propensity for migration. These waste constituents could thus contaminate groundwater if ponds or lagoons are unlined or lack adequate leachate collection systems. Siting of wastewater treatment facilities in areas with highly permeable soils could likewise facilitate leachate migration. The bottom sediment sludges, which form at the bottom of wastewater treatment ponds or lagoons, could thus release harmful constituents and contaminate groundwater. As previously noted, these sludges may be allowed to sit at the bottom of ponds for up to five years (8), thus increasing the potential for release of harmful constituents and for eventual groundwater contamination.

There is also a danger of migration into and contamination of surface water if ponds and lagoons are improperly designed or managed. Thus, inadequate flood control measures could result in washout or overflow of ponded wastes.

Disposal of bottom sediment sludge in an off-site landfill, if mismanaged, could also lead to release of hazardous constituents. The waste constituents of concern may migrate from improperly designed or managed landfills and contaminate ground and surface waters.

Transportation of these sludges off-site increases the likelihood of mismanagement and of their causing harm to human health and the environment. Mismanagement of sludges during transportation thus may result in hazard to human and wildlife through direct exposure to harmful constituents. Furthermore, absent of proper management safeguards, the waste might not reach the designated disposal destination at all.

The harmful constituents in the waste also present a health hazard via an air inhalation pathway. Studies on actual pentachlorophenol and creosote process wastewater samples using a bench scale pan evaporator indicated that a large fraction of the organic constituents were entrained in the vapors given off during the treatment(18). Benzene and toluene have vapor pressures of 75.1 mm Hg @20°C and

28.4 mm Hg @25°C and are therefore likely to volatilize (App. B). Thus, evaporation of wastewaters in ponds, lagoons, stripper/cooling towers and evaporation pans could lead to the release of hazardous and volatile constituents into the air.

Disposal of sludges by incineration is another type of management which could lead to substantial hazard. Improper incineration might result in serious air pollution by the release of toxic fumes occurring when incineration facilities are operated in such a way that combustion is incomplete. These conditions can, therefore, result in a significant opportunity for exposure of humans, wildlife and vegetation, in the vicinity of these operations, to potentially harmful substances.

D. Hazards Associated with Constituents of the Waste

Phenolics are toxic and in some cases bioaccumulative and carcinogenic. Phenol, pentachlorophenol, 2,3,4,6-tetrachlorophenol, 2,4,6-trichlorophenol, and 2,4-dichlorophenol are given highly toxic ratings in N. Irving Sax's Dangerous Properties of Industrial Materials. 2,4,6-Trichlorophenol has been identified by the Agency as a compound exhibiting substantial evidence of being carcinogenic. In addition, 2,4,6-trichlorophenol has been reported to be mutagenic, and pentachlorophenol has shown mutagenic and teratogenic effects.

Polynuclear aromatics, as a group, are known to be toxic, mutagenic, teratogenic and carcinogenic. Benzo(a)anthracene and chrysene have been identified by the Agency as compounds exhibiting substantial evidence of being carcinogenic. Benzene and toluene organic solvents, are relatively toxic, and benzene is a carcinogen. Additional information and specific references on the adverse effects of the following substances can be found in Appendix A:

- *Benzene
- *Benzo(a)anthracene
- *Benzo(a)pyrene
- *Chrysene
- *Phenol
- *2,4,6-Trichlorophenol
- *Pentachlorophenol
- *2-Chlorophenol
- *4-Nitrophenol
- *Toluene
- *Naphthalene
- 4,6-Dinitro-o-cresol
- Tetrachlorophenol
- 2,4-Dimethylephenol

*Starred compounds are designated as priority pollutants under Section 307(a) of the CWA.

References

1. Federal Register, Vol. 44, No. 212. Wednesday, October 31, 1979.
2. Development Document for Effluent Limitation. EPA: 440/1-74-023a.
3. Federal Register No. 202. Wednesday, October 18, 1978.
4. Ernst and Ernst. Wood Preservation Statistics. 1976. American Wood Preservers Association.
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9. Hartford, W.H., "The Environmental Impact of Wood Preservation," American Wood Preservers Association, 1976.
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12. Arsensault, R.D., "Pentachlorophenol and Contained Chlorinated Dibenzodioxins in the Environment--A Study of Environmental Fate, Stability, and Significance when Used in Wood Preservation." American Wood Preservers Association, 1976.

13. Proceedings: Technology Transfer Seminar on the Timber Processing Industry--March 10, 11, 1977. Toronto, Ontario. EPA: 3-WP-78-1, January, 1978.
14. Crosby, D.C., et al. "Environmental Generation and Degradation of Dioxinodioxins and Dibenzofurans." Environmental Health Perspectives. September, 1973.
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18. Acurex Corporation, "Rate of Toxic Pollutants in the Wood Treating Industry".
19. Development Document for Effluent Limitations, EPA 440/1-79/023b.
20. Shakelford and Keith, "Frequency of Organic Compounds Identified in Water", EPA-600/4-78-062, Environmental Research Laboratory, Athens, GA., Dec. 1978.
21. Damage Incident, U.S. Environmental Protection Agency, open file, unpublished data.

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DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

**INTERIM STATUS SURFACE IMPOUNDMENTS
RETROFITTING VARIANCES**

Guidance Document

July 8, 1986

Prepared for
Land Disposal Branch
Waste Management Division
Office of Solid Waste
U.S. Environmental Protection Agency

Contract Number 68-01-7237
Task 4

Prepared by
LABAT-ANDERSON Incorporated
1111 19th Street North, Suite 600
Arlington, Virginia 22009

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SPRINGFIELD, VA 22161

using Part 124 procedures to process exemption requests). Further clarifying guidance concerning administrative issues will be developed through the implementation strategy.

1.4 TIMING OF CLOSURE

Congress did not clearly distinguish between storage and disposal requirements in Section 3005(j). For that reason, EPA believes that no distinction between the two should be made regarding the timing of closure.

Section 3005(j)(1) provides that existing surface impoundments shall not "receive, store, or treat" hazardous waste after November 8, 1988, unless the impoundment is in compliance with the minimum technological requirements of Section 3004(o). EPA construes the statutory language as generally prohibiting the use of existing impoundments for the management of hazardous waste without retrofitting. This interpretation, which construes "storage" as a waste management method involving containment, is supported by the legislative history, which suggests that storage and disposal impoundments should be treated the same under 3005(j)(1). In a colloquy on the amendment from which the statutory language was derived, Senators Randolph and Chafee clarified the intent of the provision not to require retrofitting for impoundments that receive or store hazardous waste prior to November 8, 1988, as long as hazardous waste is not received after that date (130 Cong. Rec. S9182 (daily ed., July 25, 1984)). The conference report also supports this reading: Congress, in choosing the language now in the statute, rejected broader House language that would have required retrofitting for impoundments in which hazardous waste was "placed or maintained" after the effective date (H.R. Rep. No. 1133, 98th Cong., 2d Sess. 96 (1984), emphasis added)).

The Agency considered whether the limitation on "storage" of hazardous waste in Section 3005(j)(1) should be read to require that all impoundments that do not retrofit have completed closure by November 8, 1988, so that they cannot be said to be "storing" any waste. However, neither the statutory language nor the legislative history refers to the technical requirements of closure. Rather, Congress appeared to be concerned with the broader problem

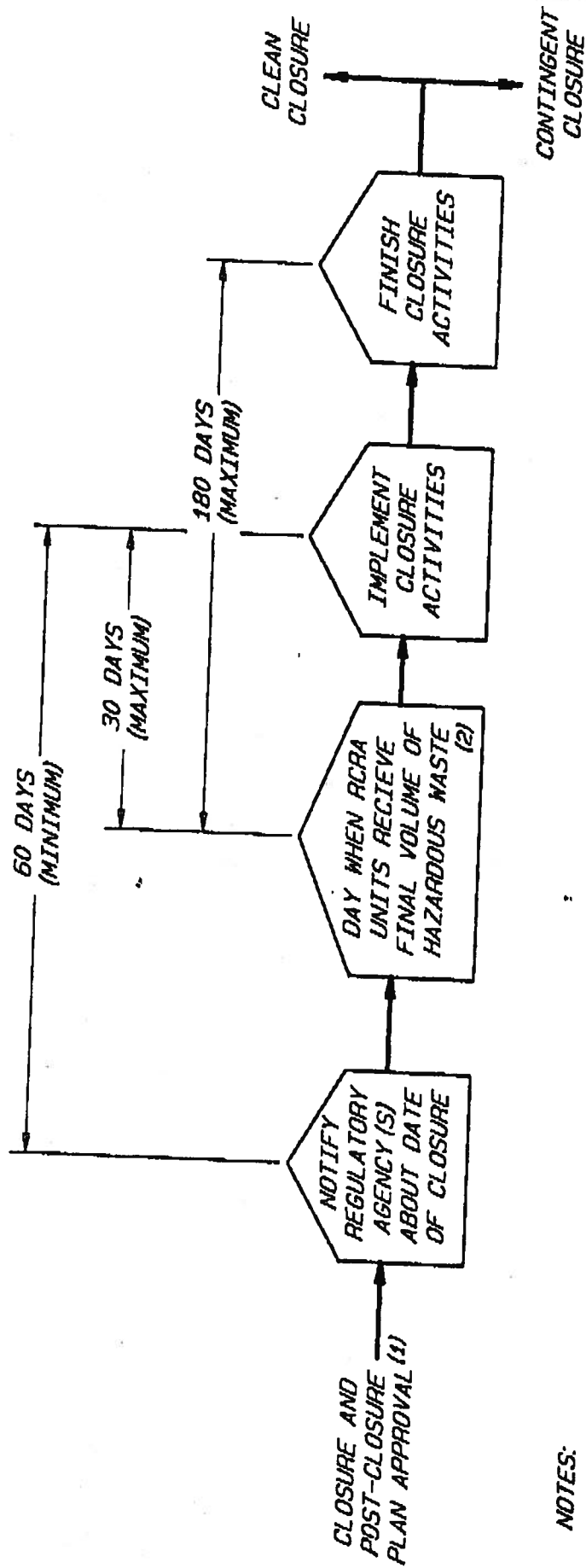
of identifying the impoundments that should be retrofitted because they continue to actively manage hazardous waste. In fact, the legislative history cited above expressly allows for the possibility that an impoundment that stopped receiving hazardous waste could continue to manage nonhazardous waste without being subject to Section 3005(j)(1) (130 Cong. Rec. S9183 (daily ed., July 25, 1984)).

Finally, EPA considered whether the limitation on "storage" of hazardous waste in Section 3005(j)(1) should be read to refer to EPA's regulatory distinction between storage impoundments (i.e., those that remove wastes at closure) and disposal impoundments (i.e., those that close with wastes in place). It was considered whether storage impoundments that do not retrofit would have to complete closure (i.e., remove all wastes such that no wastes are being stored) by November 8, 1988. Because "disposal" is not specifically prohibited by Section 3005(j)(1), disposal impoundments could continue to dispose of hazardous waste without retrofitting. This interpretation would distinguish between impoundments based on the contents of their closure plans. Nothing in the legislative history suggests that Congress considered such a distinction to be justified on environmental grounds for purposes of Section 3005(j)(1).

Thus, by November 8, 1988, all surface impoundments will have to retrofit, receive an exemption under 3004(o)(2), receive an exemption under 3005(j), or stop receiving hazardous wastes. Current closure regulations under 40 CFR 264.112 and 265.112 require owner/operators to begin closure within 30 days after the last date on which wastes are received.

Current closure regulations also require owner/operators to notify the Regional Administrator at least 180 days prior to the date on which closure is expected to begin. Amendments to the closure regulations promulgated on May 2, 1986 (51 FR 16422), effective October 29, 1986, would require notification at least 60 days prior to the date closure is expected to begin for permitted facilities and interim status facilities with approved closure plans. The new regulations clarify that the expected date of closure must be no later than 30 days after the unit has received the last known final volume

of hazardous wastes (40 CFR 264.112(d)(2), 265.112(d)(2)). Closure must be completed within 180 days of the final receipt of hazardous waste (40 CFR 264.13, 265.13). Thus, although Section 3005(j)(1) does not in itself require closure of impoundments that have stopped receiving hazardous wastes, EPA has concluded that the expeditious closure of impoundments that no longer receive hazardous waste will significantly improve protection of human health and the environment (51 FR 16445).



NOTES:

(1) THESE PLANS (PERMIT APPLICATIONS) MUST BE SUBMITTED TO THE REGULATORY AGENCY(S) UPON REQUEST.

(2) FOR MOST STATES (AND EPA) THIS DATE IS NOVEMBER 8, 1988. CALIFORNIA'S DATE IS JANUARY 1, 1988.



FIGURE 2

REGULATORY TIME CONSTRAINTS

TNP PLANTS

KOPPERS COMPANY, INC.

C67516



LAW ENVIRONMENTAL SERVICES

DIVISION OF LAW ENGINEERING TESTING COMPANY

2749 DELK ROAD, S.E.
MARIETTA, GEORGIA 30067
(404) 952-9005

December 16, 1986

Mr. Charles L. Blalock
Executive Director
Mississippi Department of Natural Resources
2380 Highway 80 West
Jackson, Mississippi 39204

Attention: Mr. Samuel Mabry
Environmental Program Administrator

Subject: Koppers Company, Inc.
Grenada, Mississippi Closure Plan
U.S. EPA I.D.#MSD007027543
LES Project No. EC6353.10

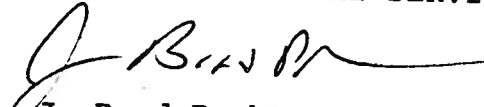
Dear Mr. Mabry:

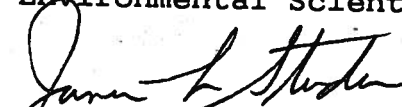
On November 14, 1986, Law Environmental Services submitted the Closure Plan for the Koppers Company, Inc. surface impoundment and sprayfield. Upon subsequent review, minor revisions were made to both the text and Closure Cost Estimates (Attachments I-5, I-6, and I-7). The revised sections are so noted in the upper right hand corner of each page.

Should you have any questions concerning this revision, please contact Mr. Cyrus Markle, ((412) 227-2000) Room 901, Koppers Building, Pittsburgh, Pennsylvania 15219.

Sincerely yours,

LAW ENVIRONMENTAL SERVICES


J. Brad Peebles, Ph.D.
Environmental Scientist


James L. Studer, P.E.
Senior Geotechnical Engineer

JBP:JLS:bfw

cc: U.S. EPA/James Scarbrough
Mr. Cyrus Markle

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Department of Natural Resources



440 College Park Dr., Monroeville, PA 15146

December 9, 1986

Mr. James Hardage
Mississippi Dept. of Natural Resources
Bureau of Pollution Control
P. O. Box 20305
Jackson, Mississippi 39209

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DEPT. OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

RE: Project Status
Grenada, MS Site
Koppers Company, Inc.
MSD007027543

Dear Mr. Hardage:

This letter presents the status of the hydrogeologic investigation (Work Plan dated October 17, 1986) at the Koppers Company, Inc. wood treatment plant located in Grenada, Mississippi. The following tasks listed below have been completed:

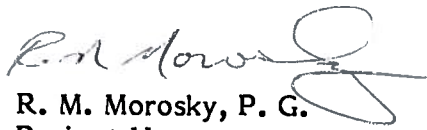
- o Background information review
- o Site reconnaissance
- o Completion of four deep (B-1, B-2, B-3 and B-4) and three shallow (B-5, B-6 and B-7) exploratory borings.
- o Installation of five groundwater monitoring wells (R-8B, R-10, R-10B, R-11, and R-12).
- o Well development
- o Well top of casing survey
- o Groundwater sampling
- o Preliminary data evaluation

Work tasks that are partially complete include laboratory analysis of the groundwater and selected soil samples. Tasks yet to be completed include aquifer characterization and final evaluation of data generated by field and laboratory testing.

Mr. J. Hardage
Page 2
December 9, 1986

If you have any comments regarding information presented herein, this project, and/or the project schedule, please advise.

Sincerely,



R. M. Morosky, P. G.
Project Manager

/dm

cc: J. R. Batchelder
J. D. Clayton
C. Cramer
C. P. Markle

DIVISION OF SOLID WASTE
REVIEWED BY GH
DATE 12/17/86
COMMENTS _____



436 Seventh Avenue, Suite 1940, Pittsburgh, PA 15219

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December 4, 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. James Hardage
Hazardous Waste Section
Mississippi Department of
Natural Resources
Bureau of Pollution Control
2380 Highway 80 West
Jackson, Mississippi 39209

RE: Submission of Part B
Application for the Container
Storage Facility
EPA I.D. No. MSD007027543

Dear Mr. Hardage:

On behalf of Koppers Co., Inc., I am transmitting to you under this cover one copy of the revised Part B Permit Application for the container storage building. Three other copies are being mailed today under separate cover. Mr. Cyrus P. Markle is Koppers representative for environmental issues at this plant and may be reached at (412) 227-2374. I am available to answer any questions you may have concerning the preparation of this submission.

Sincerely yours,

Charles P. Brush
Manager
Regulatory Affairs

CPB/bj
Enclosure

*Cross-reference Koppers Part B
permit file. JH*



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C.P. Brush

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KOPPERS CO INC

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City

PITTSBURGH

State

PA

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15219

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MR. JAMES HARAGE

Recipient's Phone Number (Very Important)

()

Department/Floor No.

Company

Mississippi Dept. of Natural Resources

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State

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1 ☐ HOLD FOR PICK-UP (See Section 11 for info)

2 ☒ DELIVER WEEKDAY

3 ☐ DELIVER SATURDAY (Extra charge)

4 ☐ RESTRICTED ARTICLES SERVICE (For info see Section 11 for info)

5 ☐ GUARANTEED SHIPMENT SERVICE (GSS) (Extra charge) (See Section 11 for info)

6 ☐ DAY ICE

7 ☐ OTHER SPECIAL SERVICE

8 ☐ B

9 ☐ C

10 ☐

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5 ☐ LBS

6 ☐ LBS

7 ☐ LBS

8 ☐ LBS

9 ☐ LBS

10 ☐ LBS

ZIP & Zip Code at Street Address Required

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Emp. No. Date

Declared Value Charge

Origin Agent Charge

Other

Total Charges

Base Charges

Federal Express Use

Declared Value Charge

Origin Agent Charge

Other

Total Charges

Base Charges

Federal Express Use

5 RELEASE
Sender authorizes Federal Express to deliver this shipment without obtaining delivery signature and shall indemnify and hold harmless Federal Express from any claims resulting therefrom.
Release

Date/Time For Federal Express Use

Received By: X
Date/Time Received
Federal Employee Number

PART #106001
FEC-S-751-1000
REVISION DATE 7/86
PRINTED U.S.A. 9

RECIPIENT'S COPY

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers

Address

Contact

Charles Brush

Phone

On September 15 and 16, 1986, I talked with Charles Brush regarding compression of the groundwater assessment and post-closure permit application schedules and several related issues (impoundment closure, spray field, etc.).

EPA has recently expressed concern with the proposed time frame for completing the post-closure permit application and related work. Further discussions with EPA and Koppers will be necessary in order to develop a satisfactory schedule.

Jim Hardage

Signature

Date



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET
ATLANTA, GEORGIA 30365

4WD-WC

RECEIVED
SEP - 4 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF LAND MANAGEMENT

Mr. Charles H. Estes, Acting Director
Division of Solid/Hazardous
Waste Management
Mississippi Department of
Natural Resources
P.O. Box 10385
2380 Highway 80 West
Jackson, Mississippi 39209

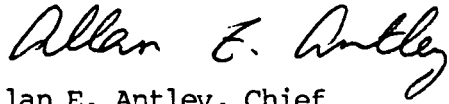
Dear Mr. Estes:

To follow up the phone conversations with Paul Peronard of my staff on August 22, 1986, I have enclosed the information you requested. To touch briefly on the three subjects we discussed:

- 1) Overfiling in Vertac Case: I talked with Allan Antley and Doyle Brittain concerning the drum storage violations. The EPA had intended to include in our actions the 265 Subpart I container storage violations, a citing of 265.31 (for not minimizing releases to the environment), and citing for the 265 Subpart F financial responsibility violations. These three citations were in addition to the previously noted violations. It is our understanding that the BPC is planning to issue an order on 8/27/86 in the Vertac case. If this order includes the three above-mentioned violations, and if appropriate penalties are levied for these violations, the EPA will not assess a penalty for these violations and allow the MDNR the lead for these actions. We will still mention these violations in our order as this should best support both of our enforcement positions.
- 2) Use of the Surface Impoundment at Vertac: The surface impoundment at Vertac lost its interim status on November 9, 1985. A closure plan will have to be implemented within the normal timeframe. I have enclosed the Headquarters guidance for the addition of non-hazardous waste to a unit that lost interim status. Please note that the guidance clearly does not alleviate closure responsibilities and goes as far as to say that the start and cost of closure shall not be delayed or adversely affected.
- 3) Sprayfield of Koppers Grenada: I have also enclosed a preliminary ruling from Judge Yost concerning the spray fields at the Koppers Organics Plant in Dolomite, Alabama. Note that it clearly states that the Brown Wood decision does not give a blanket regulatory exemption to all spray fields and that this decision should, and cannot, be the sole basis for a claim to exemption. I suggest that if Koppers presses the matter further that the presence of a sludge (and constituents of concern) be documented through inspections, photographs and sampling.

I appreciate your time and effort in the RCRA enforcement program in Mississippi.

Sincerely yours,

A handwritten signature in cursive script that reads "Allan E. Antley". The signature is written in dark ink and is positioned above the typed name.

Allan E. Antley, Chief
Waste Compliance Section

those memos to support its opinion that Brown Wood's holding pond and spray fields were treatment facilities covered by RCRA. The Respondent herein alleges that its facility and the issues presented in this case are the same as in the Brown Wood case and thus the dismissal should issue.

In its response, the Complainant argues that: (1) the Respondent's facility is not the same as Brown Wood's; and (2) that unlike the Brown Wood case, where no evidence of sludge was shown to be present in or on the spray field, in this case the Agency has analyzed samples taken from the spray field and the groundwater monitoring wells associated therewith. Such analysis shows the presence of many of the chemical constituents which caused the Agency to decide that wastes, such as those generated by one who engages in the type of business as does the Respondent, were hazardous in the first place.

The Court, in the Brown Wood case, also stated on page 30 that:

"While it may well be true that some wood processing facilities do generate K001 sludge in their holding ponds or spray fields, the record is devoid of any evidence which suggests that such sludge is generated at facilities employing the EPA-recommended treatment system utilized by this Respondent."

The Court also made it clear that the holding in that case was limited to the facts developed therein and may not apply to all facilities that use spray fields.

Other than its bare assertion that this case and Brown Wood are "indistinguishable", no evidence is presented by the Respondent which would compel the Court to share that belief. On the contrary, the Complainant has presented evidence, in the form of affidavits and official reports, which show the presence of sludge in the spray fields.

Based upon the record before me, I am of the opinion that the issuance of an accelerated decision pursuant to 40 C.F.R. § 22.20(a) is not warranted.

Accordingly, it is hereby ordered that the motion is denied in its entirety.

DATED: August 6, 1986

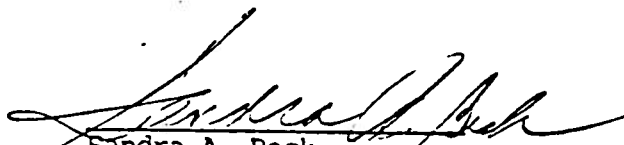

Thomas B. Yost
Administrative Law Judge

HONORABLE THOMAS B. YOST
U.S. ENVIRONMENTAL PROTECTION AGENCY
345 COURTLAND STREET
ATLANTA, GA 30365

404/347-2681, Comm. 257-2681, FTS

CERTIFICATION OF SERVICE

I hereby certify that the original of the foregoing was received by me as Regional Hearing Clerk, USEPA Region IV; and that true and correct copies were served on: Anne L. Asbell, Esquire, U.S. Environmental Protection Agency, Region IV, 345 Courtland Street, Atlanta, Georgia 30365 (service by hand-delivery); David R. Berz, Esquire, Stanley M. Spracker, Esquire, and Robert C. Sexton, Esquire Weil, Gotshal & Manges, 1615 L Street, N.W., Suite 700, Washington, D.C. 20036; and Jill M. Blundon, Esquire, Koppers Company, Inc., Room 1400 Koppers Building, 436 Seventh Avenue, Pittsburgh, Pennsylvania 15219 (service by certified mail return receipt requested).
Dated in Atlanta, Georgia this 6th day of August 1986.


Sandra A. Beck
Secretary to Judge Yost



State of Wisconsin

DEPARTMENT OF LAND AND NATURAL RESOURCES

RECEIVED

Carroll D. Besadny

Secretary

AUG 08 1986

BOX 7921

MADISON, WISCONSIN 53707

August 4, 1986

Environmental Resources TO: 4430

Mr. Charles Brush, Program Manager
Hazardous Waste Affairs
Koppers Co., Inc
Pittsburgh, PA 15219

RE: Feasibility Report - Second Notice of Incompleteness
Koppers Company, Inc. - Superior, Wisconsin
EPA I.D.: WID 006179493

Dear Mr. Brush:

We have completed our review of your June, 1986 response to our "Feasibility Report - Notice of Incompleteness" (dated April 11, 1986) for the Koppers Company, Superior facility, located in the SE 1/4, SW 1/4 of Section 12 and the E 1/2, NW 1/4 of Section 13 T48N, R13W, Town of Superior, Douglas County, Wisconsin. Based on our review, we have determined that your feasibility report still doesn't contain the minimum information required by Chapter NR 181, Wis. Adm. Code. Therefore, your report is not complete. Below you will find a summary of the items addressed in your response and our evaluation as to the adequacy of each response. Please refer to the appropriate NR 181 references (included with each item) when preparing your response to this letter. In addition, as we discussed at our July 9, 1986 meeting, you have agreed to close the surface impoundments in lieu of pursuing an operating license. Therefore, we anticipate receipt of a new feasibility report which specifically addresses the container storage area and a closure plan report which specifically addresses the surface impoundments and the spray irrigation field. In the cover letter accompanying these reports please indicate that you'd like us to discontinue our review of the existing Feasibility Report.

GENERAL

1. P.E. Stamp. This item is now complete.
2. Part A. Although a new Part A application was submitted under separate cover, it appears that it was a reproduction of the original Part A application. Please send us a newly completed Part A application that reflects current hazardous waste activities at the site. (NR 181.51(2))

3. Waste Analysis Plan. We can't deem this item complete until we receive the results from the chemical analysis of the K001, wastewater treatment sludge from the Superior facility. You must include a separate analysis of both the high and low contaminated soils you discussed at our meeting. In addition, please indicate who will conduct the sampling and analysis of wastes at the site, QA/QC procedures, chain of custody procedures, laboratory location and equipment. If plant personnel will be sampling the waste then please address this activity in the personnel training plans. If sampling and analysis is conducted by off-site personnel please discuss their qualifications. Please describe all off-site shipment of waste samples for analysis. (NR 181.42(1)(e) and 181.51(2)(c))
4. Security. This item is now complete.
5. Inspection Schedule. This item is now complete.
6. Procedures, Structures, Equipment. This item is now complete.
7. Traffic Pattern. This item is now complete.
8. Personnel Training. Attachment 1.10-1 of your response must be revised to reflect the requirements of NR 181 Wis. Adm. Code, not 40 CFR Parts 260-265. Please include a discussion of any training needed to perform waste analysis activities.
9. Previous Hazardous Waste Disposal. We can't deem this item complete until we receive a copy of the survey plat and associated documentation, as requested.
10. Financial Responsibility. The mechanism found in NR 181 Wis. Adm. Code must be used to satisfy our closure, long term care and liability requirements. Our letter of April 11, 1986 referred you to NR 181.42(10) and (11) for specific information. Please refer to our code and not to 40 CFR Part 264 Subpart H requirements.

Liability Requirements (NR 181.42(11)): Chapter NR 181 doesn't currently allow the use of the Federal net worth test to satisfy liability requirements. NR 181 requires a facility to acquire liability insurance. Due to problems obtaining liability insurance we have allowed facilities to request an exemption to this requirement (under NR 181.05) and use the financial test as an alternate requirement. If you wish to do this you should request the use of the financial test (through an NR 181.05 exemption request) and address the financial test requirements. In your exemption request please include a statement indicating that you cannot obtain liability insurance. You must have liability coverage for the surface impoundments until they are properly closed.

Closure Costs (NR 181.42(10)): Please review the requirements in the referenced code section and submit the appropriate information. This should include a performance bond, deposit, escrow account, irrevocable trust, letter of credit, net worth test and insurance. Update the closure costs to reflect the updated closure plan.

11. Environmental Assessment. This item is now complete.

CONTAINER STORAGE AREA

1. Aisle Space. This item is now complete.
2. Secondary Containment. This item is now complete.

SURFACE IMPOUNDMENTS

1. Liner Requirements. Since you have chosen to pursue closure of the surface impoundments, a complete closure plan must be sent to us before we can deem this item complete. (See item #6 of this section)
2. Locational Requirements. You need to request an exemption to NR 181.44(3)(a)(6) for the on-site well which is located within 1200 feet of the surface impoundments and for the private well located within 1200 feet north of the northern property boundary. These exemption requests must include a description of the location of the wells, including their location within the general hydrogeologic setting and any available information regarding their construction.
3. Field and Laboratory Investigations. You must submit the results of the required hydraulic conductivity tests before we can consider this item to be complete. You must include results from single well response tests performed on all on-site wells. Laboratory permeability tests don't need to be performed on the fractured clays nor the sandy deposits.
4. Water Table Contour Maps. This item is now complete.
5. Water Balance. This item is now complete.
6. Closure Plan. Please submit a closure plan which adequately addresses the surface impoundments and the spray irrigation field. This closure plan must include the following items:
 - Closure time line
 - Accurate estimates of waste volumes handled during closure
 - Personnel requirements
 - Equipment to be used (centrifuge, incinerator, backhoes, grading equipment, etc.)
 - Waste analysis plan and sampling and analysis techniques used to differentiate between high and low contaminated wastes
 - Details on the proposed soils reclamation project for the low contaminated wastes
 - Final grades
 - Groundwater monitoring plan
 - Post closure and long term care requirements
 - Closure cost estimates

The closure time line must include projected dates for submittal of plans for the wastewater treatment facility (to our Industrial Wastewater section), construction of the plant and WPDES permit modifications.

Because the closure of the surface impoundments will require soil treatment and removal, specific calculations of waste volumes are needed. Please provide reasonable estimates for the amount of:

- Sludge generated from the lagoons,
- Volume reduction of the sludge;
- Contaminated soil which will be excavated, and
- Material which will be left in-place.

Calculate these volumes specifically for the Superior facility and be as accurate as possible. The calculations found in Section 3.4-1 of your response do not appear to be accurate. Please use the dimensions of the surface impoundments presented in Section 3.1-1 of your response when calculating the estimated volumes. In addition, please explain the discrepancy between the reported range of obtainable sludge reduction volumes (52.2% to 84.3%) and the 96% you used when performing your calculations.

Please provide justification for the assumption that only 4 inches of contaminated soil will have to be removed during closure of the surface impoundments. In the absence of such justification, provide an estimate of the amount of soil that will be removed based on the extent of oily residues on fracture faces in the clay.

Please discuss the rationale behind all assumptions made when developing the closure plan. This will reduce the need for additional information and prolonged review times. See NR 181.42(8) and (9), NR 181.44(12) and NR 181.49 for more information.

7. Groundwater Monitoring.

- a. This item is now complete.
- b.
 - 1) Upgradient wells proposed to be monitored include W-4A, W-4B and W-4C. This item is now complete.
 - 2) Downgradient wells proposed to be monitored include L-1S and R-5D (well nest), L-2S and R-6D (well nest), L-4S and L-4D (well nest), R-7D, R-8D, and R-9D. This item is now complete.
- c. The results of the Table VI analysis must be sent to us before we can deem this item complete.
- d. This item is now complete.

In response to your May 29, 1986 letter to the Department, we will not require you to maintain a 200-foot setback between your container storage area and the property line.

We are not denying your proposal but merely indicating the additional minimum information needed to review the project. Submittal of this information won't insure approval nor will it preclude us from requiring additional information if the need is demonstrated through a more detailed review.

Any person aggrieved by this decision which adversely affects the substantial interests of such person by action or inaction, affirmative or negative in form is entitled to judicial review by filing a petition therefore in accordance with the provisions of section 227.15 and 227.16, Stats. The petition must be served and filed within thirty (30) days after service of the agency decision sought to be reviewed. Any petition for judicial review shall name the Department of Natural Resources as the respondent. Persons desiring to file for judicial review are advised to closely examine all provisions of section 227.15 and 227.16, Stats., to insure strict compliance with all its requirements.

Please review the above comments carefully and submit your responses in the format of a revised feasibility report which addresses the container storage area only and a closure plan which addresses the surface impoundments and the spray irrigation field. You should also include a narrative which explains your responses. Please provide a complete response to these comments within 30 days. Failure to respond within that time or to arrange a suitable alternative agreement may result in enforcement action.

If you have any questions concerning this letter, please feel free to contact Jodi Feld at (608) 267-3532, Ed Lynch at (608) 266-3084 or Barry O'Flanagan at (715) 635-4064.

Sincerely,

Richard E. O'Hara

Richard E. O'Hara, Chief
Hazardous Waste Management Section
Bureau of Solid Waste Management

JF/cn

cc: Barry O'Flanagan - Northwest District
Rich Rupert - U.S. EPA Region V - 5HS/JCK/12
Richard Berggreen - Woodward Clyde Consultants
David Shaw - Koppers Co., Inc. - Superior, WI.
Greg Hill - Industrial Wastewater Section - IWW/2
Hazardous Waste Management Section
Systems Management Section - SW/3

8165Q

KOPPERS

RECEIVED
SEP - 2 1986

August 28, 1986

DEPT. OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL

Mississippi Dept. of Natural Resources
Post Office Box 10385
Jackson, Mississippi 39209

ATTENTION: Mr. Jim Hardage
Hazardous Waste Section

RE: Koppers Company, Inc.
MSD 007 027 543
Boiler Ash Analysis

Dear Mr. Hardage:

Attached is the analysis of the Boiler Ash samples taken at our Grenada, Mississippi plant in March, 1986 which you requested. These were analyzed for K001 Appendix VII constituents by American Interplex Corp.

Please contact me at this office if we can be of any further assistance.

Sincerely yours,

Charles P. Brush

Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs

CPB/bj
Enclosure

cc: J.D. Clayton
J. Kane
C.P. Markle

DEPARTMENT OF SOLID WASTE
REVIEWED BY: *JH*
DATE: *9/11/86*
COMMENTS



3400 ASHER AVENUE
LITTLE ROCK, ARKANSAS 72204
(501) 664-5060

5668 SOUTH REX ROAD
MEMPHIS, TENNESSEE 38119
(901) 767-2081

Koppers Company, Inc.
Post Office Box 15490
North Little Rock, AR 72117

April 9, 1986

ATTN: Mr. David L. King

Control No. 6574

Description of Sample: Four (4) samples of boiler ash & four (4) samples of Boiler Cinders from Grenada Plant received on 3/26/86

Results:

<u>Parameters, ppm</u>	<u>Boiler Ash Composite</u>	<u>Boiler Cinder Composite</u>
*EPA No. K001	N.D. <0.01, <0.01	N.D. <0.01, <0.01

*Analytes in EPA No. K001 are as follows:

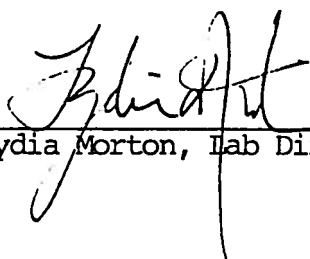
Pentachlorophenol
Phenol
2-Chlorophenol
P-Chloro-m-cresol
2,4-Dimethylphenyl
2,4-Dinitrophenol
Trichlorophenols
Tetrachlorophenols
Cresote

Chrysene
Naphthalene
Flouranthene
Benzo (b) flouranthene
Benzo (a) pyrene
Indeno (1,2,3-cd) pyrene
Benz (a) anthracene
Dibenz (a) anthracene
Acenaphthalene

Method: EPA 625

Remarks: Duplicate analyses were performed as per request.
N.D. = None Detected

AMERICAN INTERPLEX CORPORATION

By 
Lydia Morton, Lab Director

Other: _____

Address P.O. Box 160 Tie Plant, MS 38960
number street city state zip

Date Sampled 4 samples of signature
3/19 - 3/22/86 ASH + CIVOC Time Sampled 7 AM hours

Waste Type Code NA Other _____

Sample Allocation:

Chain of Possession

1.	<u><i>[Signature]</i></u> signature	<u> </u> title	<u>3/25/86</u> inclusive dates
2.	<u>David L. King</u> signature	<u>Reg Envir. Coord</u> title	<u>3/25/86</u> inclusive dates
3.	<u><i>[Signature]</i></u> signature	<u>Lab Dir</u> title	<u>3/26/86</u> inclusive dates

Name of firm or party

Koppers

Address

Contact

Charles Brush

Phone

412 227 2877

I contacted Mr. Brush on 8/18/86 to set up a meeting this week to discuss the following items:

1. Withdrawal of operating Part B and pursual of post closure Part B. (Koppers would have to submit a closure plan.) Brush said it would take longer than projected (early '87) time frame for installing an operational treatment system to replace the surface impoundment. Would take until Aug. or Sept. of 1987. He was concerned about losing interim status.
2. Pursual of a Part B permit application for container storage.
3. Schedule of for completing the groundwater assessment needs to be finalized. This was discussed in the 8/14/86 meeting with Brad Peebles.
4. Amount of penalty we are seeking.
5. Corrective action plan, A.C.L., extent of plume, interconnection of spray field and impoundment plume. (Schedule should address these items.)

Signature

Date

RECORD OF TELEPHONE CONVERSATION

Page 2 of 2

Name of firm or party

Koppers

Address

Contact

Charles Bush

Phone

Mr. Bush left a message on 8/19/86 that he could meet with Bureau staff members on Friday 8/22/86 at 9 AM.

Signature

Jim Hardege

Date

8/20/86

Meeting of July 31, 1986

NAME	Organization	Phone #
BRAD PEEBLES	LAW ENF. SERVICES	404-952-9005
Jill Blundon	Koppers Co.	412 227-2414
Charles Brush	" "	412 227-2877
Gary Payne	MBPC	601 961 5171
CALEB DANA	"	"
Jim Hardage	"	"
Joan McNEAL	Miss. ATTY. GEN OFFICE	601-359-3844
Charles Chisolm	Pollution Control	601-961-5171
Charles Estes	"	"

meeting with Koppers July 31, 1986



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
P. O. Box 20305
Jackson, Mississippi 39209



August 12, 1986

CERTIFIED MAIL NO. P 283 765 890

Mr. Charles Brush, Program Manager
Hazardous Waste Affairs
Koppers Company, Inc.
1940 Koppers Building
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

Re: Operations in Grenada County, Mississippi

Under the authority of Section 49-17-31 of the Mississippi Code, the Mississippi Commission on Natural Resources hereby causes this written complaint to be served on Koppers Company, Inc.

Investigations by the Bureau of Pollution Control have revealed that Koppers Company, Inc., through its wood treating operations in Grenada County, Mississippi, is in apparent violation of provisions of the Mississippi Hazardous Waste Management Regulations (MHWMR) and Orders of the Mississippi Commission on Natural Resources (Commission) to wit:

Koppers Company, Inc. has (1) failed to identify the extent of the plume of contamination from the regulated unit, i.e., surface impoundment, as required by MHWMR 270.14 and MHWMR 265.93; (2) failed to completely identify the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including groundwater flow direction and rate, and the basis for such identification, as required by MHWMR 270.14 and outlined in the Bureau of Pollution Control's letter dated March 19, 1984; (3) failed to monitor groundwater around the regulated unit, i.e., surface impoundment, omitting the last quarterly analyses of calendar year 1985, as required by MHWMR 265.93; (4) failed to install an upgradient well that monitors the first aquifer and is unaffected by past practices at the site, as required by Commission Order No. 705-84 as amended and MHWMR 265.91; (5) failed to submit a complete Part B permit application as required by Commission Order No. 918-85 and MHWMR Part 270, i.e., respondent did not provide sufficient information to determine the source of contamination in Well R5, as outlined in the Bureau of Pollution Control's letter dated October 22, 1985.

Koppers Company, Inc. is therefore notified to appear before the Mississippi Commission on Natural Resources on the 27th day of August, 1986, at 1:30 p.m., in the conference room of the Commission in the Southport Center Building, 2380 Highway 80 West, Jackson, Mississippi, where Koppers Company, Inc. will be heard by the Commission.

Mr. Charles Brush, Program Manager
Hazardous Waste Affairs
Page -2-

You have the right to be accompanied by your legal counsel and such witnesses as you deem necessary in presenting your defense. This will be a formal hearing, and all testimony will be taken under oath as in a courtroom trial. The Commission is empowered to levy penalties of up to \$25,000.00 per day per violation, and any appeal of the Commission's decision will be to the chancery court.

Attached you will find a copy of the Commission's hearing procedures and also a copy of frequently asked questions regarding hearings. We urge you to review these documents carefully.

If you have any questions regarding this matter, please contact us.

Yours very truly,



Charlie L. Blalock
Executive Director

CLB:JWH:cm

Attachment

cc: Ms. Jill Blundon

Mr. J. D. Clayton

KOPPER

ISSUES / DEFICIENCIES *

- ★ • Closure of Impoundment - discuss schedule / plans.
- ★ • Groundwater Assessment Incomplete, Class 1 Violation -
basis for penalty failed to identify the plume (extent) of contamination
- ★ • Is container storage still to be pursued - send letter to
withdraw the application or we will deny.
- Boiler Ash waste is a hazardous waste until demonstrated
as not a hg waste by testing for constit and characteristics
and pursue delisting.
- API Sludge is a hazardous waste because it is a solid
waste containing hazardous constituents and must be "reclaimed"
(processed to recover usable material) for reuse in the manufacture
of the product.
- ★ • SWMU's are to be addressed by EPA possibly in 7787,
however, the groundwater assessment will likely have
to include some if not all of the SMU's
SWMU's: Spray Irrigation
- ★ • Corrective Action / ACL proposal

* These are notes made in preparation for the
meeting with Koppers on 7-31-86.

JH

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Address

Contact

Phone

Koppers

- What about adequacy of corrective action plan and RC's
- How can we permit a ~~making~~ ^{making} ~~ignoring~~ ^{ignoring} Time To Switch gears on this and pursue a Post Closure Part B and close the lagoon Touch base on their closure plan.

The major area of deficiency is in the area of groundwater. Part B-permit requirements. ^{*} The extent of the plume has not been adequately defined. ⁽²⁾ Source of contamination in supposedly updrift upgradient wells has not been adequately explained.

"Koppers must determine whether the plume from the RCRA impoundment is intersected by other plumes, e.g., plume from the spray field. Koppers must adequately address the deficiencies described in the EPA comments.

Other Issues

1. Koppers Part B container storage application
Determine Koppers plans for pursuing a storage permit, current storage status (< 90 days?); then, if applicable, include in the commission order. (Storage in containers consists primarily of incoming shipments of wood preserving waste from other Koppers facilities. Waste is burned for energy recovery in their boiler.)

Signature

Date _____

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Address

Contact

Phone

2. Disposal of ash from the boiler

Koppers burns creosote waste from other Koppers plants in their industrial boiler. The waste must meet minimum BTU requirements (5,000 BTU's) for this practice to be considered legitimate. Their state air permit allows this practice. Most of the material burned in the boiler is ~~primarily~~ wood waste rather than creosote waste. They ~~are set up~~ can burn up to 750 lbs. of creosote waste and 50 lbs. of penta waste per hour. They generally burn one to two tons of wood waste per hour according to Alan McLeod.

★ ^{source} EPA has said that the ash from the boiler is a hazardous waste. To resolve this issue, Koppers should test the ash for 4001 constituents and EP toxicity metals. (Alan McLeod thinks that Koppers tested the ash several years ago.)

Signature

Date

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Address

Contact

Phone

3. Determining releases from other solid waste management units

spray irrigation
land farm
closed impoundment
cooling pond?
buried concrete tank

Koppers should determine whether releases of hazardous constituents from several inactive units have occurred. They have detected groundwater contamination from one active SWMU (the spray field). These other units include two closed impoundments and a landfarm where creosote sludges were disposed of prior to 1980. Also, the cooling pond may have hazardous constituents in it.

Is this a
RCRA unit
or a SWMU?

4. Accumulation of API separator sludge

This is not currently a problem. However, we (haz waste staff) need to make a final decision on how this waste will be stored and managed in the future.

EXPLAIN

5. ACL/Compliance Return Portion deficient

Signature

Date



LAW ENVIRONMENTAL SERVICES
DIVISION OF LAW ENGINEERING TESTING COMPANY
2749 DELK ROAD, S.E.
MARIETTA, GEORGIA 30067
(404) 952-9005

July 29, 1986

Mr. James H. Scarbrough, P.E., Chief
Residuals Management Branch
Waste Management Section
USEPA Region IV
345 Courtland Street
Atlanta, Georgia 30365

RE: Exposure Information Report
Koppers Company, Inc.
EPA I.D. No. MSD 007 027 543

Dear Mr. Scarbrough:

On behalf of the Koppers Company, Inc., Law Environmental Services is submitting the enclosed response to your letter of June 26, 1986. Late in June, 1986 the Koppers Grenada Mississippi Plant received your letter of June 26, 1986 detailing the results of a review of the RCRA Exposure Information Report (EIR) submitted on August 7, 1985. The EIR of 8/7/85 is not the most current document you should have in your files. On 12/5/85 a revised EIR was submitted to the Mississippi Department of Natural Resources and a copy was mailed to your office. The 12/5/85 revision incorporated information that was not available at the time the 8/7/85 EIR was submitted.

The 12 comments listed in the enclosure to your 6/26/86 letter were reviewed against the current EIR (i.e. 12/5/85 revision). A number of the questions raised in the comments were already addressed in the 12/5/85 EIR. In a few cases the information requested in your 6/6/86 letter is not readily available.

The results of Koppers review of the 12 comments are enclosed. Each item is individually addressed. First the comment, as described in your 6/26/86 letter, is listed. This is followed by the appropriate response. Please note that revisions to the most current EIR (12/5/85) were necessary. Specifically page 4 was changed in response to comment 2. This revised page is also enclosed and follows the codification procedure suggested in your letter. Also note that a new figure will be submitted in response to comment 7. As detailed in that response the information required to generate the new figure is not available.

FILE COPY

September 30, 1986

Mr. Charles Brush
Program Manager
Hazardous Waste Affairs
Koppers Company, Inc.
1940 Koppers Building
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

Re: Koppers Company, Inc.
MSD007027543
Cooling Pond

Reference is made to our telephone conversation on September 23, 1986, regarding the above mentioned pond.

As we discussed, additional information is needed in order for the State to better determine the regulatory status of the pond, i.e., whether or not the pond is subject to RCRA regulations as either a hazardous waste or a solid waste management unit. Therefore, we request that Koppers submit the following information on or before October 31, 1986:

- (1) A complete description, including narrative and diagrams, of the manufacturing process or parts of the process relevant to discharge of cooling water to the pond; and
- (2) A determination and description of any other potential or actual discharges or sources of discharge to the pond, including spills or releases of raw materials, process water, or wastewater.

In addition to the above items, we ask that Koppers sample the cooling pond water and sediments for K001 constituents and submit the test results by November 21, 1986. Please notify me in advance of the sampling date so that a Bureau representative can be present when the samples are taken.

If you have any questions regarding this matter, please contact me.

Sincerely,

Jim Hardage
Hazardous Waste Section

JH:els

cc: Mr. James Scarbrough, EPA



436 Seventh Avenue, Suite 1940, Pittsburgh, PA 15219

NOV 26 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

November 25, 1986

FEDERAL EXPRESS

DEPT. OF NATURAL RESOURCE

RECEIVED BY JH

DATE 12/8/86

COMMENTS Reason for delay

is acceptable. Part B subsequently

submitted on 12/4/86.

Mr. Jim Hardage
Mississippi Dept. of Natural Resources
2380 Highway 80 West
Jackson, Mississippi 39209

RE: Koppers Company, Inc.
Grenada, Mississippi Facility
EPA ID #MSD007027543

Subject: Submission of Part B
for Container Storage Facility

Dear Mr. Hardage:

On behalf of Koppers Company, Inc. I am requesting an extension of four (4) days in which to submit the Part B Application for the container storage facility at Koppers Company, Inc., Grenada, Mississippi. The due date was December 1, 1986 and per this letter a new date of December 5, 1986 is respectfully requested.

The principal cause of the delay is the loss of the 1985 word processing disc and the necessity of retyping the entire document. It had been anticipated until November 24, 1986 that corrections and revisions would represent only a minimal clerical load and that the documents would have been shipped to you on November 28, 1986. This letter also references your telephone conversation on this topic of early November 25, 1986 with Charles Brush. In that conversation, Mr. Brush made this request verbally and outlined the nature and reason for this request.

Sincerely,

Cyrus P. Markle
Manager
Environmental Regulatory Programs

CPM/jsw

cc: J. R. Batchelder
R. S. Ohlis
C. P. Brush
Ron Morosky



440 College Park Dr., Monroeville, PA 15146

November 21, 1986

GH
Mr. James Hardage
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Re: Data Transmittal
Koppers Company, Inc.
Grenada, MS Site
MDS007027543

Dear Mr. Hardage:

Pursuant to our November 10, 1986 conversation regarding the on-going hydrogeologic investigative activities at the Koppers Company, Inc. Grenada, Mississippi wood treatment plant, it was agreed that Keystone would provide to you, on behalf of Koppers, the following items:

- o Available information about the oil/water interface probe that is used for water and immiscible fluid measurements in groundwater monitoring wells;
- o A listing of investigations conducted by Keystone that have or are currently using the Koppers A2056 analytical method for pentachlorophenol (PCP); and
- o The chemical data for the 1986 quarterly groundwater monitoring of the surface impoundment and spray irrigation field.

Attachment A contains the operations manual for the interface probe that is manufactured by Oil Recovery Systems, Inc. This device features a dual sensing probe that uses an optical liquid sensor and electrical conductivity to distinguish between water and hydrocarbons. We have found the interface probe to be invaluable for hydrogeologic investigations that entail evaluations of non-aqueous phase liquids.

Attachment B lists various projects that have used Koppers method A2056 to measure PCP concentrations. Keystone's Manager of Quality Assurance for the Environmental Analytical Laboratory, Mr. John Flaherty, recommends this test procedure over that of EPA Method 604 for PCP analysis. Although this test method has been provided to you in several previous submittals, it is again included in Attachment B for your files. Additionally, Mr. Flaherty would welcome any further explanation or clarification of test method A2056.

Mr. James Hardage
November 21, 1986
Page 2

Attachment C presents the analytical results of the quarterly groundwater monitoring in the vicinity of the surface impoundment (wells R-5, R-6, R-7, R-8 and R-9) and the spray irrigation field (wells SF-1, SF-2, SF-3 and SF-4). This submittal is not intended to satisfy annual reporting requirements, but to keep your department aware of the groundwater quality in the vicinity of these two units. An annual report which will satisfy pertinent regulatory requirements will be submitted on or before March 1, 1987. Please be advised that the polynuclear aromatic hydrocarbon (PAH) summary presented in Figure 4 of the Comprehensive Study Plan (dated October 29, 1986) assumes a concentration of 0 ug/L for those PAH data results reported below their respective detection limits.

If you have any additional environmental data or other pertinent information needs regarding this project, please feel free to contact me or Mr. C. P. Markle at your convenience.

Sincerely,


R. M. Morosky, P. G.
Project Manager

/dm
Attachments

cc: J. R. Batchelder
J. Blundon
C. P. Brush
J. D. Clayton
J. Flaherty
S. Mabry
C. P. Markle
R. S. Ohlis

WORD OF TELEPHONE CONVERSATION

Name of firm or party

Charles Brush Koppers Company

Address

Contact

Phone

I contacted Charles Brush on 11/21/86 regarding the status of Koppers Part B permit application for storage in containers. The work is progressing on schedule. Koppers is addressing the EPA contractor's comments. No problems anticipated at this point in meeting the 12/1/86 submittal date.

J Hardage

Signature

Date

Addendum Re: Spray Field

EPA has indicated that this unit is a "regulated" RCRA unit. Koppers has contested this interpretation from the beginning and are apparently prepared again to legally contest this interpretation if a penalty should be applied. However, they have agreed that it is a solid waste management unit (SWMU), and they would be willing to address it in the present closure plan for the impoundment and the post closure Part B application as appropriate if directed by us.

Site inspection by my staff indicate the spray irrigation site is completely vegetated and has no visible sludge accumulation on the top several inches of soil. Previous sampling indicates K001 contaminants in very small measurable quantities. We will therefore direct Koppers to address this spray field as a RCRA unit in the post closure Part B application and the closure plan for the impoundment.

this was part of an information package sent to EPA during negotiations with Koppers in the fall of 1986.

GH

(X)

Koppers Ice Plant Facility Groundwater
Assessment Schedule (Draft) as discussed
with Brad Peebles, Law Engineering, on 9/11/86

Phase I Site Characterization

Objective: Define Hydrogeology

1. Planning Sept 15 - Nov. 1, 86

10/15/86

2. Install background well Nov. 1 - Dec. 1, 86 (submit report 12/1/86)

3. Review existing records Oct. 15 - Nov. 15, 86 (intermittent activity)
Nov. 15, 86 - Jan. 1, 87 (full time.)

4. Characterize site

Oct. 15, 86 - Dec. 1, 86 (intermittent activity)

10/15/86 - begin borings

Dec. 1, 86 (Implement site characterization

plan - 3 deep borings)

Dec. 1, 86 - Mar. 1, 87 (full time.) ^{additional} borings

5. Corrective action plan development

Nov. 1, 86 - Feb. 15, 87 (intermittent activity)

Feb. 15, 87 - Jan. 1, 88 (full time.)

Phase II

Objective: Fully define the plume of contamination

3/1/87

1. Design site assessment plan Feb. 15, 87 - Apr. 15, 87 (submit report 4/1/87)

3/15/87

2. MBPC reviews plan Apr. 15, 87 - May 1, 87

4/1/87

3. Koppers responds to MBPC review May 1, 87 - May 15, 87

4/1/87 -- 5/15

4. Implement plan May 15 - Aug. 1, 87 (Install additional wells)

7

5. Sample groundwater on two occasions + evaluate

5/15 + 7/15/87

Aug. 1 - Dec. 1, 87 (Sample early Aug. and Oct.)

11/1/87

6. Prepare post closure application, including ACL
and schedule for compliance with 3004(u)

Feb. 15 - Sept. 1, 87 (intermittent activity)

Sept. 1, 87 - Jan. 1, 88 (Full time.)



LAW ENVIRONMENTAL SERVICES

DIVISION OF LAW ENGINEERING TESTING COMPANY

2749 DELK ROAD, S.E.
MARIETTA, GEORGIA 30067
(404) 952-9005

November 14, 1986

RECEIVED
NOV 17 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Charles L. Blalock
Executive Director
Mississippi Department of Natural Resources
2380 Highway 80 West
Jackson, Mississippi 39204

Attention: Mr. Samuel Mabry
Environmental Program Administrator

Subject: Koppers Company, Inc.
Grenada, Mississippi Closure Plan
U.S. EPA I.D.#MSD007027543
LES Project No. EC6353.10

Dear Mr. Mabry:

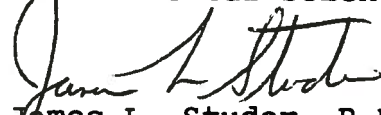
In compliance with the Commission on Natural Resources' Amendment to Order No. 1040-86 Law Environmental Services on behalf of Koppers Company, Inc., herewith submits the Closure Plan for the facilities surface impoundment and sprayfield.

Should you have any questions concerning this submission, please contact Mr. Cyrus Markle, ((412) 227-2000) Room 901, Koppers Building, Pittsburgh, Pennsylvania 15219.

Sincerely yours,

LAW ENVIRONMENTAL SERVICES


J. Brad Peebles, Ph.D.
Environmental Scientist


James L. Studer, P.E.
Senior Geotechnical Engineer

JBP:JLS:1sm

cc: U.S. EPA/James Scarbrough
Mr. Cyrus Markle



436 Seventh Avenue, Suite 1940, Pittsburgh, PA 15219

November 10, 1986

RECEIVED
NOV 10 1986

CERTIFIED MAIL
Return Receipt
Requested

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Jim Hardage
Mississippi Dept. of Natural Resources
Bureau of Pollution Control
Hazardous Waste Section
P. O. Box 10385
Jackson, Mississippi 39209

RE: Koppers Company, Inc.
Grenada, Mississippi

Subject: Cooling Pond

Dear Mr. Hardage:

In response to your letter of September 30, 1986, I am providing the following. Please note that an extension of the submittal date to November 10, 1986 was granted by you in our telephone conversation of November 3, 1986.

1. The process cooling system at Koppers Company, Inc., Grenada, Mississippi is a closed-loop circulation of water between the condenser that cools the steam turbine generator and the three condensers cooling the steam vacuum system in the wood-preserving operation. Cool water from the pond is circulated through the condensers, BTU's are exchanged and the heated water is returned to the pond for cooling and reuse. The turbine condenser is a closed-tube type (i.e. the cooling water is circulated through the tube bundle). The steam vacuum condensers are closed-jacket type (i.e. preservative and contact water passes through the tube bundle and the cooling water is circulated through the jacket). Due to evaporation, water in the system is lost. Rainwater is collected in two collection basins and used to make up for water loss. In the event that additional water is needed, well water, which is stored in the water tower, can be used in that event.

Page 2
Mr. Jim Hardage
Mississippi Dept. of Natural Resources
November 7, 1986

2. There are provisions for draining the process spill containment areas to the cooling pond. This is not a practice, but only an emergency precaution. The cooling pond system does not utilize wastewater. Due to contaminants in wastewater, such use would plug up the system. In regard to potential and actual discharges to the cooling pond, I have not been told of any such incidents. I do feel that it is possible for small quantities of treating chemicals to enter the system as a result of leaking condensate tubes or other day-to-day maintenance.

In regard to sampling of the cooling pond for K001 constituents and submitting the results by November 21, 1986, it would be very difficult if not impossible to schedule a sampling crew, do the analysis and submit results by November 21, 1986. Also, the cooling pond is not a wastewater treatment unit and thus it is not appropriate to look for K001. Please clearly define the constituents to be analyzed for. As many constituents are ambient, what are the levels of concern? An extension is requested until the purpose, scope and logistics of this sampling can be clarified, reviewed and approved by Koppers management and until arrangements for sampling and analysis can be made.

Sincerely,

Cyrus P. Markle
Manager
Environmental Regulatory Programs

CPM/jsw

Attachment - See drawing/Diagram of Process Units Relative to the Cooling Pond at Koppers Co., Inc., Grenada, Miss.

cc: J. D. Clayton
R. S. Ohlis
J. R. Batchelder
C. P. Brush
Jill Blundon
Ron Morosky
Curt Cramer

*Solid Waste Management Units
will be sampled by the EPA
contractor. Koppers does not
have to sample the cooling pond
at this time. (Cooling pond is a SWMU.)*

JH 2/5/87

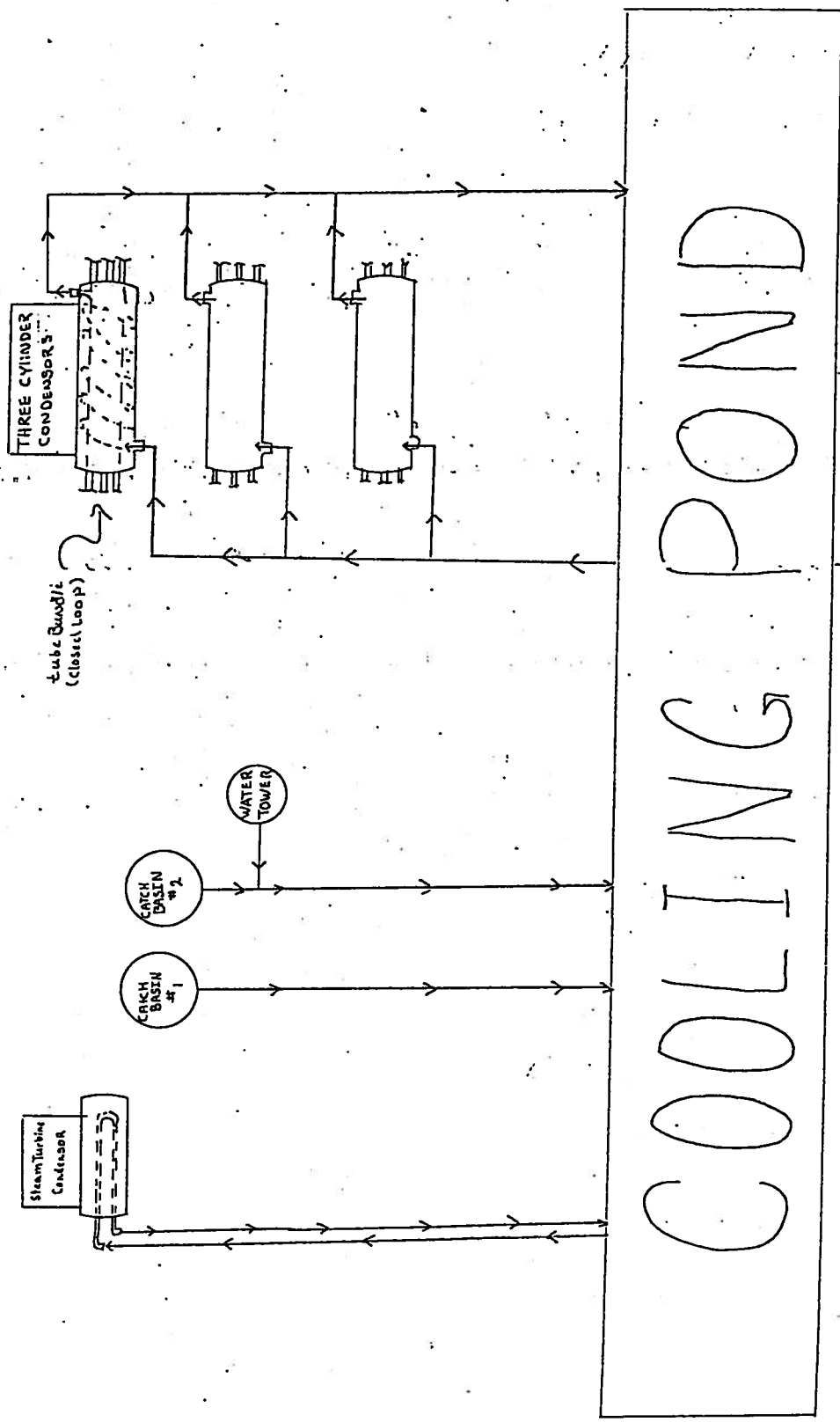


Diagram of Process Units —
Relevant to The Cooling Pond
At Koppers Co., Inc - Grenada, MS

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers

Address

Lie Plant

Contact

Ren Moroski

Phone

The comprehensive study plan for the surface impoundment and spray field is coming in today (Friday, Oct. 31) by Federal Express, as confirmed by telecon with Moroski 10/31/86.

Jim Harkey

Signature

Date



436 Seventh Avenue, Suite 1940, Pittsburgh, PA 15219

RECEIVED

NOV - 3 1986

October 30, 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Sam Mabry
Mississippi Department of Natural Resources
Bureau of Pollution Control
Southport Center
2380 Highway 80 West
Jackson, Mississippi 39209

RE: Comprehensive Study Plan
Koppers Company, Inc.
MSD007027543

Dear Mr. Mabry:

Enclosed are three copies of the document titled Comprehensive Study Plan, Surface Impoundment and Spray Irrigation Field, for Koppers Company, Inc. wood treating plant near Grenada, Mississippi. This document was prepared by Keystone Environmental Resources, Inc. on behalf of Koppers.

As always, if you have any questions, comments or if more is required at this time, please feel free to call me at (412) 227-2374.

Sincerely,

Cyrus P. Markle - DA

Cyrus P. Markle
Manager
Environmental Regulatory Programs

CPM:da

Enclosures

*Copy of study plan
mailed to EPA Nov. 3, 1986.
JH*

*Plan acceptable.
JH*



440 College Park Dr., Monroeville, PA 15146

October 27, 1986

Mr. Caleb Dana
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 20305
Jackson, Mississippi 39209

RE: Grenada, MS Site
Koppers Company, Inc.
MSD007027543

RECEIVED
OCT 30 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Dear Mr. Dana:

This letter is in reference to our confirming discussions on October 15, 1986, regarding the initial phase of hydrogeologic investigative activities to be performed by Keystone Environmental Resources, Inc. at the Koppers Company, Inc. Grenada site. Based on your departmental concurrence of the study scope, a work plan (dated October 17, 1986) was submitted to the Mississippi Department of Natural Resources, Bureau of Pollution Control (MBPC). Several conversations with MPBC personnel after the work plan was submitted indicated that your department is in agreement with the project objectives and the scope of work that was developed to achieve those objectives. Therefore, implementation of the work plan was initiated on October 27, 1986.

*Complies with item 3
of amendment to
order No. 1040-86.
JH*

The MPBC will be kept apprised of the site investigation. Project status submittals will be delivered upon completion of major work tasks.

If you have any questions regarding this letter or other aspects of this project, please contact me or Mr. C. P. Markle.

Sincerely,

R. M. Morosky, P.G.
Project Manager

RM:kt-1165

cc: C. P. Brush
J. R. Batchelder
J. Blundon
C. P. Markle
J. D. Clayton

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers

Address

Tie Plant, MS

Contact

Ron Maroski

Phone

Ron Maroski called me on 10/22/86 regarding the comprehensive plan of study/schedule for development and submittal of a complete post closure Part B permit application. Specifically, he wanted to know if the plan should address all the items required in the application or just those pertaining to groundwater (gw) and corrective action (ca) requirements.

Sam Mabry and I talked with Ron later that day or the following day (10/23/86). We agreed that the plan/schedule should address all the items but that emphasis should be placed on gw and ca requirements since those elements are the most complex and time-consuming of all the Part B activities. We also stated that the surface impoundment and spray field closure schedules should mesh with the post-closure schedule.

Jim Hardage

Signature

Date



440 College Park Dr., Monroeville, PA 15146

October 17, 1986

Mr. Caleb Dana
Mississippi Department of Natural Resources
Bureau of Pollution Control
Southport Center
2380 Highway 80 West
Jackson, Mississippi 39209

RE: Work Plan Transmittal
Koppers Company, Inc.
MSD007027543

RECEIVED
OCT 20 1986

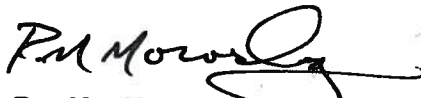
DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Dear Mr. Dana:

Enclosed are two copies of the document titled Additional Hydrogeologic Work for the Koppers Company, Inc. Wood Treating Plant located near Grenada, Mississippi. This document was prepared by Keystone Environmental Resources, Inc. on behalf of Koppers and it details hydrogeologic investigative activities scheduled to be conducted at the plant beginning the week of October 27, 1986.

If you have any questions regarding the work plan contained herein or require additional copies, please advise.

Sincerely,


R. M. Morosky, P.G.
Project Manager

RM:kt-1115
Enclosure

cc: C. P. Markle (3)
C. P. Brush
J. A. Quagliotti
M. Tymiak
R. Clayton
J. Blundon

DIVISION OF SOLID WASTE
REVIEWED BY *GH, EP*
DATE *week of Oct. 20, 1986*
COMMENTS *Plan acceptable.*

Comments on Comprehensive
Study plan for Koppers
By Heydon Environmental Resources.

- ① How will the question of interconnectivity be addressed. Include interconnectivity in schedule of work activities.
- ② It appears that the work schedule does not include ALL development. Does this mean Koppers will not pursue ACLs. They have previously indicated they see it as a viable option — we should confirm that they are NOT pursuing ACL's at this time but if they are, then ACL development should be incorporated into the work schedule. on page 9-2 → states ACL's may be used.
- ③ Kopper states they are going to use an oil-water interface probe for water level measurements. We need to know the standard operating procedures for sampling with this device as well as the sensitivity of the instrument to specific gravity changes.
information
optical sensor
.01 ft measurement ability
could sound indicating something besides water
Gd Water Tech
- ④ what is a PAH concentration, how is it determined? This is something I've not seen before; it seems to me to be more appropriate to analyse for selected individual PAH constituents rather than taking the group as a total → I suggest they chose the 4 most mobile PAH's and analyse for them, not a total PAH
- ⑤ We need the actual chemical analysis report for 1986 data, not ~~the~~ just the iso concentration map they submitted in the comprehensive study
- ⑥ Are enough iterations allowed for in the plan study?
- ⑦ Pg. 11 of addn. Hydro work → do we want to accept this methodology for Pent analysis? I don't know anything

KOPPERS

RECEIVED
OCT 20 1986

October 16, 1986

Department of Natural Resources

Mr. Charlie L. Blalock
Executive Director
Mississippi Department of Natural Resources
P.O. Box 20305
Jackson, Mississippi 39209

RE: Commission Order No. 1040-86

Dear Mr. Blalock:

This letter is to confirm that Koppers has met the requirements of Items 1 and 2 of the Order. On October 14, 1986, Koppers representatives met with representatives of the Bureau and submitted a Plan of Study and computer generated Schedule.

At the October 14th meeting, the Bureau requested additional information and clarification to the Plan. That information in the form of an amended Plan will be delivered by October 31, 1986. An agreed upon schedule was developed at the October 14, 1986 meeting.

Koppers will continue to up-date the Department as milestones are reached in our work to comply with the Order.

Sincerely yours,



J. R. Batchelder
Vice President & Manager
Technical and Environmental Services
Tar and Wood Products Sector

JRB/bj

cc: J. Hardage

incorrect — the "plan of study" submittal was inadequate and not acceptable — it did not cover all of the Part B application requirements, the form was not desirable, and not enough detail provided to understand the work. CAP 10/20/86

Amended plan was received by the Bureau on Nov. 3, 1986. Plan was acceptable. (H)

KOPPERS' COMPLIANCE SCHEDULE

1. On or before October 15, 1986, Koppers Company, Inc. must submit a comprehensive plan of study and a schedule for development and submittal of a complete post closure Part B permit application for the hazardous waste surface impoundment and spray irrigation field. The plan and schedule must be developed in accordance with the requirements of Section 270.14 and describe those activities necessary to fully characterize the hydrogeology of the Koppers Tie Plant facility and the plume of contamination that has entered the groundwater from the hazardous waste surface impoundment and the spray irrigation field.
2. On or before October 15, 1986, Koppers Company, Inc. must meet with representatives of the Bureau of Pollution Control to discuss the comprehensive plan of study and schedule referred to in item number one above.
3. On or before November 1, 1986, Koppers Company, Inc. must initiate field activities at the Tie Plant facility to fully characterize the hydrogeology of the site, in accordance with the requirements of Section 270.14 of the Mississippi Hazardous Waste Management Regulations. Specifically, Koppers must (1) begin installation of an upgradient well that monitors the first aquifer and is unaffected by past practices at the site, in accordance with the requirements of Section 265.91 of the Mississippi Hazardous Waste Management Regulations, (2) begin installation of additional downgradient wells at or near the Koppers Company, Inc. legal (property) boundaries, (3) begin field activities that will fully characterize the uppermost aquifer and aquifers hydraulically interconnected beneath the facility, and (4) begin test borings that will fully characterize the hydrogeology of the site.
4. On or before November 15, 1986, Koppers Company, Inc. must submit a complete closure plan for the hazardous waste surface impoundment and spray irrigation field, in accordance with Part 265, Subpart G of the Mississippi Hazardous Waste Management Regulations. The plan must include a schedule that specifies the date that closure activities will begin, the total time required to close the facility, and the time required for intervening closure activities.
5. On or before December 1, 1986, Koppers Company, Inc. must submit a complete Part B permit application for storage of hazardous waste in containers, in accordance with the requirements of Part 270 of the Mississippi Hazardous Waste Management Regulations.

JH:cm

*This is a compliance
schedule included as
an amendment to
Order 1040-86.*

SfK

9-22-88

PROJECT MEETING
October 14, 1986
Koppers Company, Inc.
Grenada, Ms. Site

<u>NAME</u>	<u>AFFILIATION</u>	<u>PHONE NUMBER</u>
R. MOROSKY	KEYSTONE ENVIRONMENTAL RESOURCES INC	(412) 327-3000
S. Mabry	MDNR	601/961-5062
CALEB DANA	MDNR, BPC	601/961-5171
Jim Hardage	MDNR, BPC	601/961-5171
Gary Payne	//	//
Charles Brush	Keystone Envir. Resources P. Hsborough	412-227-2877

PROJECT MEETING AGENDA

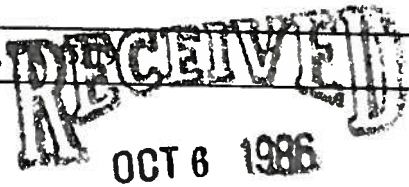
October 14, 1986

Koppers Company, Inc. - Grenada, Ms. Site

1. Introduction
2. Meeting Purpose
3. Site Hydrogeology
 - a. Geology
 - b. Groundwater Occurrence
 - c. Groundwater Chemical Data
4. Additional Hydrogeological Work
5. Plan for Site Characterization (SOW)
6. Other Items
7. Summary



436 Seventh Avenue, Suite 1940, Pittsburgh,



CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 3, 1986

Mr. Charlie L. Blalock
Executive Director
Mississippi Department of Natural
Resources
P. O. Box 20305
Jackson, Mississippi 39209

RE: Koppers Company, Inc.
Grenada, Mississippi

SUBJECT: Payment of Monetary Penalty
Order #1040-86

Dear Mr. Blalock:

The attached Draft #971106 in the amount of Twenty Thousand Dollars (\$20,000.00) is presented by Koppers Company, Inc. as required under the Mississippi Commission on Natural Resources Order #1040-86.

As always, if you have any questions, comments or if more is required at this time, please feel free to call me at (412) 227-2374.

Sincerely,

Cyrus P. Markle
Manager
Environmental Regulatory Programs

CPM/jmw

Attachment

cc: Jill Blundon
J. D. Clayton
R. S. Ohlis
J. R. Batchelder
Mark Franck
C. P. Brush

RECEIVED

OCT 7 1986

Department of Natural Resources
Business Services

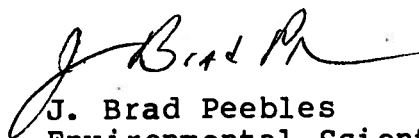
Page two
Mr. Scarbrough
July 24, 1986

Thus this figure is to be submitted at a later date. The certification, referenced in your letter, will be enclosed with the new figure.

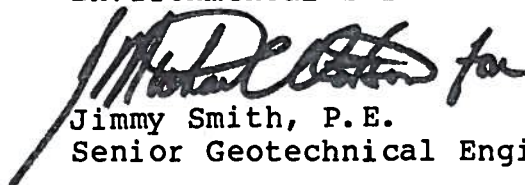
Please contact Mr. Charles Brush (412-227-2000) of the Koppers Company, Inc. if you have any questions regarding the EIRs (8/7/85 and/or 12/5/85), the enclosed comments, or the revisions.

Sincerely,

LAW ENVIRONMENTAL SERVICES


J. Brad Peebles

Environmental Scientist


Jimmy Smith, P.E.

Senior Geotechnical Engineer

gh
cc: Mr. Jim Hardage/Mississippi Department of Natural Resources/
with enclosures
Mr. Charles Brush/Koppers Company, Inc./with enclosures

JBP:JNS/ddm



Exposure Information Report Responses
Koppers Company Incorporated
EPA I.D. # MSD 007 027 543

7/29/86

1. Provide the areal map showing land use in the Tie Plant area as discussed in Section 2.1.2. of the Exposure Information Report (EIR).

Response: The study referenced in the 8/7/85 EIR was not complete when the 12/5/85 EIR was submitted. The study entitled "Comprehensive Development Plan; Grenada, Mississippi" was prepared by Continental Consultants Incorporated (Jackson Mississippi) and became available for Koppers' review on 3/4/86. This study does not have areal land use maps. The best land use map for the area is Figure 2 from both the 7/7/85 and 12/5/85 EIRs. Other maps are not available.

2. Summarize any available analysis of the four waste streams discussed in Section 2.1.3. Do not include analysis already in the Part B.

Response: The surface impoundment receives wastewater associated with wood preserving processes. As a result the USEPA believes K001 waste may form on the bottom of the surface impoundment. The USEPA defines K001 waste as bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol (40 CFR 261). The constituents of K001 waste are listed in Appendix VII (40 CFR 261). Koppers believes it has submitted the appropriate analysis in the Part B submissions.

As detailed in both EIRs 8/7/85 and 12/5/85, and in the enclosed revision to Section 2.1.3, other waste streams are handled at the "facility". The facility is the entire site not just the regulated RCRA unit (i.e. surface impoundment). These other wastes are sanitary, creosote (U051), and process waste from the treatment of wood with oil and pentachlorophenol. In the past, Koppers chose to use the waste code U242 to describe this waste. The RCRA unit does not receive these other three waste streams. No analysis is available on the sanitary waste; however, its constituents are expected to be typical of normal sanitary waste.

3. Provide information on municipal well locations as discussed in the EIR, if the information is available.

Response: The 12/5/85 EIR provides the requested information on the location of the municipal wells.

94
Aug. 28, 1986

Exposure Information Report Responses
Koppers Company Incorporated
EPA I.D. # MSD 007 027 543

7/29/86

4. Unless otherwise reported to EPA, provide any monitoring well data indicating a release of hazardous waste to the groundwater. Include information on any affected public or private water supplies.

Response: As detailed in both EIRs a review of private wells was undertaken. This review included a search of state files and a door to door survey. This approach should have revealed any potential receptors. No information was obtained that indicated a release of hazardous waste had affected public or private water supplies. Furthermore Section 6.0 of both EIRs reported that there is no information indicating municipal or private wells have been affected by a release of hazardous waste into the ground-water. The results of sampling and analysis of the RCRA monitoring wells is the only other information concerning ground-water quality. This information can be found in the Part B Application.

5. Provide supplementary information to the section on surface water uses as discussed in the EIR, if available.

Response: Surface water resource use maps are not available to provide any additional information.

6. Provide a description of any known releases of hazardous constituents to surface waters via the drainage ditches. Include the extent of contamination, any remedial action taken, the severity of impact, and any known food chain contamination resulting from the release.

Response: Section 6.0, in both EIRs, states that no releases from the surface impoundment are known to have occurred. No known releases from the surface impoundment have occurred that resulted in contamination of surface waters.

7. Provide a map of any underground conduits within 1000 feet of the regulated unit, if available.

Response: The 12/5/85 EIR describes the Tie Plant water distribution and sewer systems and the reason why a map of these underground conduits is not available. A map of natural gas lines has been requested (7/13/86) from Mr. J. Robertson of the Mississippi Valley Gas Company. This information will be sent to your office when it becomes available to Koppers.

Exposure Information Report Responses
Koppers Company Incorporated
EPA I.D. # MSD 007 027 543

7/29/86

8. Describe the types and capacity of vehicles used to transport waste onto and off the site. Identify normal transportation routes for hazardous wastes within one mile of the facility. Describe procedures for clean-up of transportation related spills and describe any transportation related releases of hazardous waste.

Response: The exposure information required by Section 3019 and detailed in the "Permit Applicants" Guidance Manual for Exposure Information Requirements Under RCRA Section 3019" (July 3, 1985) apply to surface impoundments and landfills. As stated in both the 8/7/85 and the 12/5/85 EIR, the surface impoundment is the only RCRA unit under review and the surface impoundment does not receive waste from off site sources. Removal of waste, from the surface impoundment, is not anticipated until closure. The activities associated with closure are developed in the closure plan (See Part B). Therefore the information requested by item 8 is not applicable.

9. Describe how the unit location affects the possible magnitude of human exposure from any release of hazardous wastes (i.e. the number of people who are served by downstream drinking water wells).

Response: The inherent risk to non-private wells is addressed in Section 7.2.3 (Mitigating Factors) of the 12/5/85 EIR. Only four private wells were located in the well survey undertaken by the facility. These wells are not downgradient of the surface impoundment. Furthermore, one of the wells is used solely to water cattle, while the remaining three wells are used by humans and are represented to be over 500 feet deep. As developed in the 12/5/85 EIR, drinking water taken from this depth is separated from the uppermost aquifer by a series of clay beds. Thus there is little potential for human exposure.

10. Describe the design features that effect the potential for releases to the groundwater (i.e. liners etc.).

Response: Section 7.2.3 of both EIRs deals with mitigating factors. Both EIRs review the ground-water monitoring program as it is used to detect potential releases from the surface impoundment. Both EIRs state that a Corrective Action Program would be implemented if the ground-water data indicated such was required. The 12/5/85 EIR reviews the mitigating factor a series of clay beds (e.g. The Basic City Shale member of the Tallalatta formation) would have on potential releases from the surface impoundment.

Exposure Information Report Responses
Koppers Company Incorporated
EPA I.D. # MSD 007 027 543

7/29/86

11. Discuss the possible magnitude of human exposure from a release to the soil in the event of a dike failure.

Response: The possible magnitude (i.e. number of people) of human exposure is discussed in both EIRs. Dike failure is reviewed as a specific possibility with the inherent risk and mitigating factors developed in Sections 7.4.2 and 7.4.3.;

12. The EIR must address the potential for human exposure due to a release to the air, subsurface gas pathways, and transportation practices as described in the Permit Applicant's Guidance Manual for Exposure Information Requirements Under RCRA Section 3019.

Response: The guidance manual indicated that the narrative section for each pathway can generally be expected to be two or three pages. The discussions and conclusions could be based upon relevant Part B information, information submitted in earlier portions of the EIR, and any additional information available to owners or operators. The three areas addressed in item 12 were reviewed in both EIRs (See Section 3.3 "Air", 3.4 "Subsurface Gas" and Section 4.0 "Transportation"; also see response to item 8). These three areas were not addressed in the narrative section (Section 7.0) because they presented an insignificant exposure component or they were not applicable.

As described in Section 3.3 "Air" of both EIRs, the RCRA unit is a surface unit that contains K001 waste as a sludge on the bottom of the impoundment. The K001 Bottom Sediment Sludge in the surface impoundment is a stable, non-reactive, oily liquid that does not generate, nor does it have the potential to generate either a surface or subsurface gas. Thus there is no venting systems, caps, dust suppression for particulate controls or other systems referenced in the guidance document that are characteristic of landfills. Furthermore the facility is located in a relatively unpopulated rural area of Mississippi (as stated in both EIRs the area within three miles of the surface impoundment has approximately 14,255 people). Thus both the potential for exposure and the magnitude of any exposure would be low.

Landfills are the primary source of subsurface gas concerns. As stated in the guidance document, surface impoundments have limited potential for exposures from subsurface gas releases. This limited potential is associated with large exposed surface area. The RCRA surface impoundment at the Koppers Grenada facility is not large (estimated to be 26,980 square feet; gross surface area at top of dike) and K001 waste is on the bottom of

Exposure Information Report Responses
Koppers Company Incorporated
EPA I.D. # MSD 007 027 543

7/29/86

the surface impoundment. Thus it was concluded the subsurface gas pathway presented little to no risk of human exposure.

As stated in both EIRs and in the response to item 8, the surface impoundment does not receive any waste from off site sources. Therefore a narrative discussion on transportation practices is not applicable.

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers Grenada Facility

Address

Contact

Chuck Vita, Pittsburgh PA

Phone

412 227 2877

Earlier this summer, Jack McMillan received a call from the hazardous waste regulatory agency in Colorado. The call pertained to closure of a surface impoundment at a Koppers Plant in Colorado. The closure plan apparently called for shipment of the K001 sludge to the Koppers Plant in Grenada.

On 7/18/86 I contacted Chuck Vita about this matter. He agreed to check into it and get back in touch with me next week. (He indicated that Marty Schlesinger might call back.)

On 7/19/86 David Kirshner, the environmental coordinator for the Denver plant, contacted me. Apparently there are several disposal options in the closure plan, one being to ship the K001 sludge to the Grenada Plant for energy recovery, i.e., burning the sludge in the industrial boiler there. He agreed to notify me in the event that this option is chosen. He is aware that the waste must meet minimum BTU requirements. His phone no. is (412) 227-2677.

Signature

Jimi Hardage

Date

7/21/86

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Mr. Charles Brush

Address

Koppers

Contact

Phone

412 227 2877

I contacted Mr. Brush on 7/7/86 regarding a date for a meeting with Koppers representatives. He agreed to call back to confirm a date. I suggested meeting on July 10, the 11th, or the 15th. He said that Koppers was having piezometers installed the week of 7/7/86 to better define the direction of groundwater flow in the area north and northwest of the surface impoundment.

On 7/8/86 Jill Blundon, a lawyer for Koppers called. She said that Mr. Brush had been called to testify in a court proceeding in California. She did not know when he would be available to meet, but she agreed to call me back the following week.

On 7/16/86 I contacted Jill Blundon. She said that Mr. Brush was still in California. The agreement we reached was that Koppers would meet with BPC before the end of July, and that Mr. Brush would attend the meeting if he finishes testifying in California. (He had not been called yet, but was on stand-by.) She will call back later to confirm a date.

meeting has been scheduled for Thursday ^{July} ~~August~~ 31 10:30. JH 7/25/86

Signature

Jeri Hardage

Date

7/18/86

FILE COPY

July 11, 1986

Ms. Jill Blundon
Koppers Company, Inc.
Legal Services
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219

Dear Ms. Blundon:

Re: Koppers Company, Inc.
Tie Plant (Grenada, Mississippi)
MSD00702543

This letter confirms, in response to your letter dated June 6, 1986, that Mississippi does not currently impose any fee or tax on the generation, storage, or disposal of hazardous waste.

If you have any further questions, please contact me.

Sincerely,

Jim Hardage
Division of Solid Waste Management

JH:vgr

The Agency says that it may reexamine this decision in the future and consider using the hazardous waste Subtitle C authority "with modified mining waste standards." The decision to rely for the present on the solid waste Subtitle D authority in RCRA is based on the Agency's belief that current RCRA hazardous waste management standards are "likely to be environmentally unnecessary, technically infeasible, or economically impractical when applied to mining wastes." For additional information call EPA's Superfund/RCRA Hotline at (800) 424-9346 or (202) 382-3000 or contact Dan Derkics at (202) 382-2791.

LEGAL BRIEFS

• **OHIO STEEL PLANT FACES RCRA FINES.** EPA Region 5 has filed a civil administrative complaint under RCRA against the LTV Steel Co. plant in Canton, Ohio, for allegedly failing to close a waste pile properly. The company has also been charged with violating RCRA requirements for waste manifests, employee training, inspections, and emergency plans, the Agency said. EPA is seeking \$40,750 in civil penalties from LTV Steel.

• **EPA SEEKS RCRA PENALTY AGAINST KOPPERS, OHIO PLANT.** EPA Region 5 has filed a civil complaint under RCRA against the Koppers Co. of Youngstown, Ohio, for allegedly failing to include a surface impoundment and storage tank in its RCRA permit application. Koppers also has failed to install the required groundwater monitoring for the impoundment and violated federal rules governing inspections, recordkeeping, employee training, and emergency plans, EPA said. The Agency is seeking a civil penalty of \$82,000.

• **RESPONSIBLE PARTIES AGREE TO GROUNDWATER STUDY AT ILLINOIS NPL SITE.** EPA, the state of Illinois, and nine companies signed an agreement June 19 requiring the companies to determine the extent of groundwater contamination at the Wauconda National Priorities List (NPL) site and decide what to do about it. The responsible parties who agreed are W.R. Grace & Co., Morton-Thiokol Inc., Waste Management of Illinois Inc., Honeywell Inc., Exxon Chemical Americas, Wells Manufacturing Co., Mail-Well Envelope Co., Ink Specialties Co., and the Illinois Bronze Paint Co. The agreement also calls for the parties to build a fence around the site, repair and maintain a soil cover, and install a leachate collection system to prevent contaminants from reaching a nearby creek, the Agency said. The 74-acre, former sand and gravel pit, located two miles from Wauconda was used as a landfill between 1950 and 1978, when it was closed and covered. Well samples have found low levels of ammonia, boron, chloride, iron, phenols, PCBs, and 2,4-dimethylphenol in the water.

• **EPA SUES 36 COMPANIES FOR CLEANUP COSTS AT OKLAHOMA NPL SITE.** EPA is suing 36 companies under Superfund to recover more than \$1.4 million in cleanup costs at the Hardage National Priorities List (NPL) site near Criner, Oklahoma. The government is also seeking to have the 36 companies, selected from among 350 potentially responsible parties, pay between \$70 million and \$374 million EPA estimates will be needed to complete the cleanup. Thirty-three of the defendants are being sued for allegedly causing health threats at the Hardage site by disposing of hazardous substances and wastes at the disposal facility which operated between 1972 and 1980. More than 18 million pounds of toxic wastes, including PCBs, cyanide, solvents, acids, waste oil, and paint were sent to the site in eight years. EPA estimates the 60-acre site contains about 18,000 drums of wastes and 174,000 cubic yards of contaminated soil. The landfill was added to the NPL in 1983. The defendants are Advance Chemical Distribution Inc., Allied-Signal Inc., Atlantic Richfield Co., Ashland Oil Inc., AT&T Technologies Inc., Borg-Warner Corp., Kerr-McGee Refining Corp., Cato Oil and Grease Co., Dal-Worth Industries Inc., Double Eagle Refining Co., Exxon Corp., Firestone Tire & Rubber Co., Foster Feed and Seed Co., Gencorp Inc., Honeywell Inc., J.O.C. Oil Exploration Co., L&S Bearing Co., Magnetic Peripherals Inc., Maremont Corp., McDonnell-Douglas Corp., Mobil Chemical Corp., Nalco Chemical Co., Oklahoma Gas and Electric Co., Oklahoma National Stockyards Co., the Oklahoma Publishing Co., Rockwell International Corp., Texas Instruments Inc., Uniroyal Inc., Unit Parts Co., UOP Inc., Westinghouse Electric Corp., and the Weyerhaeuser Co. In addition, three companies—Powell Sanitation Services Inc., United States Pollution Control Inc., and Samuel Bishkin, owner of the Eltex Chemical and Supply Co.—are being sued for hauling wastes to the site, the Agency said.

• **EPA TO BE REIMBURSED FOR CLEANUP AT LESLIE, MARYLAND SITE.** Under a consent order, 16 companies and a county government will reimburse EPA and the state of Maryland \$930,000 in cleanup costs at the Leslie Superfund site in Cecil County. EPA will get \$731,200 and the state will receive \$148,800. Cleanup at the site involved the removal of approximately 1,200 drums of hazardous wastes. The 16 companies who agreed to repay the governments included: George P. Bissell Co.; Pemil Inc., Montgomery Brokers Inc.; DuPont, Marisal Inc., Squibb and Sons, Wyeth Laboratories, W.I. Gore and Associates Inc.; Bristol Myers Co.; Union Carbide; Firestone Synthetic Rubber and Latex, and the trustees of the property and assets of Galaxy Chemicals.

• **FIRST MIXED FUNDING SETTLEMENT MAY BE REACHED AT MOTCO, TEXAS SITE.** A Superfund settlement agreement is imminent between EPA and responsi-

RECEIVED

JUN 30 1986

JUN 26 1986

4WD-RM

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Raymond Bartlow
Plant Manager
Koppers Company, Inc.
Post Office Box 160
Tie Plant, Mississippi 38960

Re: Exposure Information Report Review
Koppers Company, Inc.
EPA I.D. Number MSD 007 027 543

Dear Mr. Bartlow:

EPA has completed its review of your RCRA Exposure Information Report (EIR), of August 7, 1985. Based on this review, EPA has determined that your EIR is incomplete, and additional information will be required. Under the authority of Section 3007 of the Resource Conservation and Recovery Act, a revised EIR (or appropriate revised segments) must be submitted within thirty (30) days after receipt of this letter. You should be sure your revised EIR adequately addresses the deficiencies described in the enclosed comments.

Your response to our comments may be in the form of a totally revised complete EIR or revised pages and figures to be inserted into the original EIR submission. If you choose to submit revised pages, please provide the following information:

1. Page and figure numbers should be shown.
2. For each page or figure submitted, indicate whether it is a revision to a page or figure in the original submittal or a new page or figure not contained in the original submittal.
3. Date or code each page and figure. For example, 32(r-9/10/85) would be page 32, revised 9/10/85 and Figure D-1(r-9/10/85) would similarly note a change.

To facilitate our review, please return a copy of our comments (Enclosure A) with annotations in the margin which identify the revised pages or figures on which your response to each comment item is located.

The revisions to your EIR must include a certification as required by 40 CFR §270.11(d).

If you have any questions in this matter, please contact Mr. Patrick Abell of my staff at (404) 347-3433.

Sincerely yours,

James H. Scarbrough, P.E., Chief
Residuals Management Branch
Waste Management Division

Enclosure

cc: Jack M. McMillan, Mississippi Department of Natural Resources

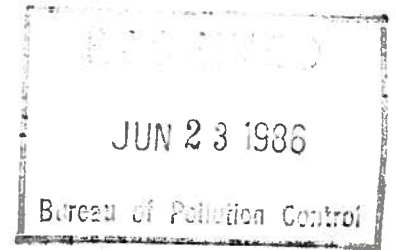
Exposure Information Report Comments
Koppers Company, Incorporated
EPA I.D. Number MSD 007 027 543

Location
in EIR

- 2.1.2. 1. Provide the areal map showing land use in the Tie Plant area as discussed in Section 2.1.2. of the Exposure Information Report (EIR).
- 2.1.3. 2. Summarize any available analysis of the four waste streams discussed in Section 2.1.3. Do not include analysis already in the Part B.
- 3.1.1. 3. Provide information on municipal well locations as discussed in the EIR, if the information is available.
- 3.1. 4. Unless otherwise reported to EPA, provide any well data indicating a release of hazardous waste to the groundwater. Include information on any affected public or private water supplies.
- 3.2.1. 5. Provide supplementary information to the section on surface water uses as discussed in the EIR, if available.
- 3.2. 6. Provide a description of any known releases of hazardous constituents to surface waters via the drainage ditches. Include the extent of contamination, any remedial action taken, the severity of impact, and any known food chain contamination resulting from the release.
- 3.4. 7. Provide a map of any underground conduits within 1000 feet of the regulated unit, if available.
- 4.0 8. Describe the types and capacity of vehicles used to transport waste onto and off the site. Identify normal transportation routes for hazardous wastes within one mile of the facility. Describe procedures for clean-up of transportation related spills and describe any transportation related releases of hazardous waste.
- 7.2.3. 9. Describe how the unit location affects the possible magnitude of human exposure from any release of hazardous wastes (i.e. the number of people who are served by downstream drinking water wells).
- 7.2.3. 10. Describe the design features that affect the potential for releases to the groundwater (e.g. liners etc.).
- 7.4 11. Discuss the possible magnitude of human exposure from a release to the soil in the event of a dike failure.
7. 12. The EIR must address the potential for human exposure due to a release to the air, subsurface gas pathways, and transportation practices as described in the Permit Applicant's Guidance Manual for Exposure Information Requirements Under RCRA Section 3019.



LAW ENVIRONMENTAL SERVICES
DIVISION OF LAW ENGINEERING TESTING COMPANY
2749 DELK ROAD, S.E.
MARIETTA, GEORGIA 30067
(404) 952-9005



June 17, 1986

Mr. Charles Brush, Program Manager
Hazardous Waste Affairs
Koppers Company Inc.
1940 Koppers Building
436 7th Avenue
Pittsburgh, PENN 15219

Attention: Mr. Charles Brush

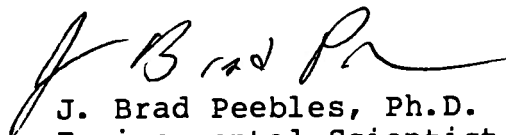
**Subject: May 30, 1986 Letter from Mississippi Department
of Natural Resources to Koppers**

Today I spoke with Mr. Jim Hardage of the Mississippi Department of Natural Resources. Mr. Hardage indicated that the Commission on Natural Resources did have a meeting scheduled for June 18, 1986 but the issues associated with the May 30, 1986 letter would not be presented at that time and the Koppers Company was not on the agenda.

Mr. Hardage indicated that the Mississippi Department of Natural Resources did plan on meeting with Koppers sometime during the first part of July to discuss the issues that were raised in the May 30, 1986 letter. The exact date of that meeting, as of this time, is undetermined but may be established sometime next week.

Sincerely,

LAW ENVIRONMENTAL SERVICES


J. Brad Peebles, Ph.D.
Environmental Scientist

JBP:ln

✓ cc: Mr. Jim Hardage, *gt*
Miss. Dept. of Natural Resources

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers Company Inc.

Address

Contact

Phone

Brad Peebles with Law Environmental Services called me today (6/16) in regard to the 5/30/86 letter from the Bureau to Koppers concerning groundwater monitoring.

I informed him that our current plans were to meet with Koppers representatives in early July, then bring the matter of groundwater monitoring and Part B information before the Commission in July or August.

I told him that I would notify Koppers (Mr. Brush) regarding a date and time for the meeting in early July, once a date has been agreed to in-house.

I also agreed to send copies of the GWM checklist referred to in the 5/30/86 letter.

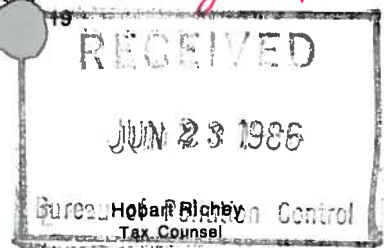
Signature

Jim Hardage

Date

6/16/86

Koppers Company, Inc., Legal Services
436 Seventh Avenue, Pittsburgh, PA 15201
Telephone 412-227-2000
Telex 0866418, Koppersco



KOPPERS

Donald H. Cuzzo
General Counsel
Templeton Smith
John F. Ramser
Stephen T. Tomko
Thomas Burgunder
Thomas F. Reid
George Carroll
Edward B. Wood
Thomas R. Hays
Kenneth W. Kubrick
Mary Dombrowski Wright
Jill M. Blundon

June 16, 1986

Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Dear Sir:

If your state imposes any fee or tax on the generation, storage or disposal of hazardous wastes or hazardous substances, please send me a copy of the applicable statute and regulations.

If your state does not impose such a fee or tax, I would appreciate written confirmation of that fact.

If there is a charge for photocopying, please direct the invoice to my attention.

Thank you for your assistance.

Very truly yours,

Jill M. Blundon

JMB:le

during test burns in September 1985, at the Combustion Research Facility in Jefferson, Ala. (Current Developments, April 18, p. 2234).

Based on the low level of dioxins found in the water, measured at about 0.1 part per trillion of 2,3,7,8-TCDD, which is used as an equivalent measure for CDDs and CDFs, EPA believes the wastes can be safely managed in the same manner as other hazardous wastes. The effect of the change would be to allow the wastes to be managed safely at RCRA interim status and fully permitted facilities, the proposal said.

Previous Dioxin Rule Cited

EPA has already acknowledged that less stringent standards are appropriate for less contaminated, dioxin-containing wastes, the proposal said. Under a January 1985 rulemaking, EPA determined that soils containing less than 1 part per billion of TCDD residue could be safely handled at RCRA facilities (Jan. 18, 1985, p. 1514).

EPA also would redesignate all future scrubber water that would be generated from burning RCRA-listed dioxin wastes from acutely hazardous to hazardous if it is found not to exceed 10 parts per trillion of TCDD, the agency said.

Comments on the proposal may be sent until July 3 to Docket Clerk, Docket No. F-86-CRFP-FFFFF, Office of Solid Waste (WH-562), EPA, 401 M St., S.W., Washington, D.C. 20460.

Requests for a hearing should be sent by June 18 to Eileen B. Claussen, Director, Characterization and Assessment Division, Office of Solid Waste (WH-562B), EPA, at the above address.

For further information, contact the RCRA Hotline, toll-free at (800) 424-9346, or in Washington, D.C. at (202) 382-3000.

Hazardous Waste

TANKS WITHOUT RCRA-REQUIRED PROTECTION ALLOWED IF CORROSION DANGER MINIMAL, EPA SAYS

New underground storage tanks may be installed without corrosion protection under the Resource Conservation and Recovery Act if there is a minimal danger of tank corrosion, according to an RCRA interpretive rule issued by the Environmental Protection Agency June 4.

The 1984 amendments to RCRA establish interim requirements for underground storage tanks containing petroleum and other substances defined as hazardous under the superfund law installed between May 7, 1985, and the effective date of new tank standards being developed under Section 9003(e) of RCRA, according to the rule (51 FR 20418).

The action sets forth EPA's interpretation of Section 9003(g) of RCRA, which allows an exception to tank standards. The rules require that tanks installed in the interim period prevent releases due to corrosion or structural failure, be cathodically protected or steel clad against corrosion, and that the material used in the lining of the tank be compatible with the substance to be stored there.

The exception allows tanks without such corrosivity protection to be installed in soil with a resistivity to corrosion of 12,000 ohms per centimeter or greater, the rule stated. Resistivity is measured by how an electrical current moves through soil, EPA said. The soil tests must be conducted in accordance with American Society for Testing and Materials Standard G57-78, according to the rule.

The rule "puts the regulated community on notice of the circumstances under which the agency will proceed with enforcement action for non-compliance," EPA said.

For further information, contact Pamela Harris, EPA Office of Solid Waste; telephone (202) 382-6128, or the RCRA Superfund Hotline toll-free at (800) 424-9346, or in Washington, D.C. at (202) 382-3000.

Hazardous Waste

PICKLE LIQUOR CONSIDERED HAZARDOUS BY EPA ONLY WHEN GENERATED BY MAKERS OF IRON, STEEL

Spent pickle liquor will not be regulated as a hazardous waste unless it has been generated by "persons who produce iron and steel" or displays hazardous waste characteristics defined under the Resource Conservation and Recovery Act, the Environmental Protection Agency said May 28 in a final rule.

EPA said it amended its list of hazardous wastes under RCRA to delete pickle liquor generated by many operations in response to a petition for rulemaking submitted by four porcelain enamel companies in 1985. Pickle liquor is an acid used in steel finishing (51 FR 19320).

After receiving the petition, EPA in September 1985 outlined for public comments a range of options for regulating spent pickle liquor as hazardous waste (Current Developments, Sept. 13, 1985, p. 870).

In announcing the revision to its regulations, EPA said the record in the rulemaking which added spent pickle liquor to the list under RCRA supported applying the definition of hazardous waste only to pickle liquor generated at iron- and steel-making facilities. The regulation took effect May 28.

For further information, contact Jacqueline Sales, Office of Solid Waste, (WH-562B), EPA, 401 M St. S.W., Washington, D.C.; telephone (202) 382-4770. Information is also available from the agency's RCRA Hotline; telephone (202) 382-3000 or (800) 424-9346 (toll free).

Hazardous Waste

SPRAY IRRIGATION UNREGULATED UNDER RCRA, EPA JUDGE RULES IN WOOD PRESERVER'S SUIT

The use of spray irrigation fields by wood-preserving facilities cannot be regulated under the Resource Conservation and Recovery Act, according to a May 30 ruling by an administrative law judge for Environmental Protection Agency Region IV.

The ruling rejected EPA's contention that RCRA requires wood-preserving facilities to obtain land disposal permits before spraying wastewater from the wood-preserving process over land (*In re: Brown Wood Preserving Co. Inc.*, EPA Region IV, No. RCRA-84-16-R).

In an administrative enforcement action against the Brown Wood Preserving Co. Inc., of Brownsville, Ala., the agency claimed that the company generated a sludge that could be regulated under RCRA. In addition, EPA charged that the company improperly sought exemption from a number of RCRA requirements by characterizing part of its treatment system as a "tank" (Current Developments, April 18, p. 2238).

Thomas B. Yost, the administrative law judge who reviewed the dispute, rejected both of EPA's claims.

Sludge Not Subject to RCRA Regulation

EPA sought to regulate the wood-preserving facility as a producer of "sludge" in its process water holding tanks and spray irrigation fields. The production of sludge, other than as part of a wastewater treatment system, can be regulated under RCRA, according to Yost.

Noting that Brown Wood's method of treating wastewater complied with state-of-the-art requirements under the Clean Water Act, Yost rejected EPA's contention that it had a proper basis for finding that Brown Wood produced sludge.

The only basis for EPA's claim, Yost said, was unsubstantiated theories as to how sludges might be produced in the treatment process. EPA never actually identified sludges at the Brown Wood facility that could be regulated, nor did the agency give the company effective notice and an opportunity to comment on EPA's theories concerning the formation of sludges, Yost said.

John F. Hall, president of the Wood Preservers Institute, told BNA that the ruling prevents the agency from imposing RCRA requirements until it provides for full notice and comment in a rulemaking proceeding on such requirements.

Wood and Clay Structure Qualifies As Tank

The agency also criticized Brown Wood for installing a device with wooden sides and a clay bottom to collect water generated in the wood-preserving process. EPA argued that the structure could not support itself if removed from the ground, and could not qualify for exemptions from RCRA requirements granted to storage tanks.

Citing the agency's conflicting interpretations of what types of facilities qualified as tanks under RCRA, Yost observed that EPA's regulations under the Act only require that a structure be constructed primarily of non-earthen materials, as Brown Wood had done.

Yost criticized EPA's failure to inform the regulated community of any requirements for self-supporting structures, adding that Brown Wood's device met the RCRA requirements for tanks.

Surface Mining

OSM PROPOSES NEW WILDLIFE PROTECTION RULES FOR CLARITY, TO RESPOND TO COURT DECISIONS

To comply with recent court decisions and to clarify rules, the Department of Interior's Office of Surface Mining Reclamation and Enforcement May 29 proposed several changes in regulations governing mining permit applications and mining operation and reclamation with respect to fish and wildlife protection.

The proposed changes stem from legal challenges to the OSM's interpretation of the Surface Mining Control and Reclamation Act of 1977, as well as modifications the office felt are necessary to clarify the act (51 FR 19498).

The proposed rules affect fish and wildlife resource information and planning requirements in the permitting process, and performance standards of mining operations applied to the protection of fish and wildlife values. They influence surface mining operations and reclamation and surface impacts of underground mining activities.

The portion of the proposed rules dealing with performance standards spring from legal challenges by coal industry representatives, several states, and environmental groups. (*In Re: Permanent Surface Mining Regulations II*, DCDC, 21 ERC 1724; Current Developments, Oct. 12, 1984, p. 956).

The proposed changes would require that toxic ponds be fenced and that state-identified endangered species be afforded similar protections as under the federal Endangered Species Act. They are part of many changes ordered by the court in the this multiple-subject ruling (Current Developments, July 26, 1985, p. 502).

Additionally, the portion of the proposed rules change relating to the permitting process would amend several

rules suspended for four years and reinstituted by court order in 1984, (*In Re: Permanent Surface Mining Regulations II*, DCDC, 21 ERC 1724).

Among changes, the proposal would affect gathering of pre-mining fish and wildlife resources information, the requirement for site-specific studies, and fish and wildlife protection plan provisions.

OSM will hold public hearings if requested in Washington, D.C.; Denver, Colo.; and Knoxville, Tenn., on July 31 at 9:30 a.m.

Upon request, OSM will also hold public hearings in Georgia, Idaho, Massachusetts, Michigan, North Carolina, Oregon, Rhode Island, South Dakota, and Washington at times and dates to be announced in the Federal Register at least five days beforehand.

Written comments will be accepted until 5 p.m. Eastern Daylight Time on Aug. 7. Comments may be hand delivered to the OSM, Administrative Record, Room 5315, 1100 L St., N.W., Washington, D.C., or mailed to OSM, Administrative Record, Room 5315-L, 1951 Constitution Ave., N.W., Washington, D.C., 20240.

For more information, contact Charles H. Wolf, OSM, U.S. Department of Interior, Ten Parkway Center, Pittsburgh, Pa. 15220; telephone (412) 937-2896.

General Policy

MCKAY RESIGNS ROLE IN OLSON PROBE TO AVOID 'APPEARANCE OF CONFLICT OF INTEREST'

James C. McKay resigned May 29 as independent counsel to "avoid the appearance of a conflict of interest" in a probe that former Assistant Attorney General Theodore Olson allegedly improperly withheld Environmental Protection Agency documents from Congress in 1983.

McKay was appointed April 24 by a special court of the U.S. Court of Appeals for the District of Columbia Circuit (Current Developments, May 2, p. 11).

In a statement, McKay said "While I have no actual conflict of interest in connection with this investigation, the appearance of interest conceivably may exist because of advice given by another member of my firm in an area which might be considered to have a relationship with this investigation.

"Although I did not participate in any way in such representation, I feel that I must, nevertheless, resign as independent counsel to avoid even the appearance of a conflict of interest."

The statement did not disclose which member of McKay's firm, Covington & Burling, gave advice or who the advice was given to.

Morrison Named As Replacement

Alexia Morrison, who had been named by the court as deputy independent counsel, will succeed McKay as independent counsel. Morrison is a partner in the Washington, D.C. law firm of Swidler & Berlin.

Morrison is a former chief litigation counsel for the Securities and Exchange Commission enforcement division and a former assistant U.S. attorney in Washington, D.C.

Air Pollution

ATTORNEY SEYMOUR TO STUDY DEAVER ROLE IN LOBBYING FOR CANADA ON ACID RAIN ISSUE

New York attorney Whitney North Seymour, Jr., was appointed May 29 as independent counsel to investigate the

Volume was measured according to the total amount of a particular waste that is sent to a land disposal facility. "Basing the ranking on volume disposed rather than volume generated is consistent with the legislative history of the RCRA amendments," the rule says. Using disposal volumes also avoids including wastes that are treated, recycled, or recovered, EPA said.

WOOD PRESERVERS' WASTEWATER RULED NOT HAZARDOUS UNDER RCRA

An EPA administrative law judge in Atlanta, citing the Agency's "rather Byzantine . . . interpretations" of RCRA, has dismissed a 1984 RCRA complaint against an Alabama wood preserving company accused of failing to meet financial assurance and groundwater monitoring requirements. In the May 30 ruling Judge Thomas Yost said EPA cannot amend RCRA regulations by calling a substance a hazardous waste when the Agency has already decided it does not contain hazardous constituents. Yost also said the Agency's use of internal memos to support enforcement action against previously unregulated waste units is a violation of the Administrative Procedures Act.

EPA issued the RCRA complaint against Brown Wood Preserving Co. of Brownville, Alabama in March 1984, charging that the company did not meet financial responsibility requirements for a wastewater spray field, which the Agency termed a waste management unit. Region 4 sought a \$24,000 civil penalty from Brown Wood Preserving, but the company fought the charge and demanded a hearing before the administrative law judge (see April 28, 1986, p. 6).

Wastewater Not Hazardous, Judge Rules

Brown Wood Preserving discharges creosote contaminated wastewater into settling tanks to remove the creosote for recycling. The wastewater is then sprayed into a surface "tank" which filters the water through sand to remove the last contaminants through evaporation. The entire process is regulated under the company's NPDES permit.

The EPA complaint said Brown Wood Preserving is generating hazardous waste because the water creates a sludge when it filters through the sand. "This interpretation is contrary to previous decisions by EPA not to consider the wastewater from (spray fields) to be a hazardous waste," Yost said.

Yost said EPA tried to get around the Administrative Procedures Act (APA) by deciding to regulate the sludge through a series of memos from John Skinner, former

director of the Office of Solid Waste, to Region 4 enforcement officials rather than through a formal rulemaking process. The judge said that the memos from Skinner to Region 4 "have no force or regulatory effect" because they violate the APA. He chided EPA and the Alabama Department of Environmental Management (DEM) for calling the sludge a hazardous waste based on "an undocumented theory" rather than scientific evidence.

Filter System Exempt From RCRA

Yost said the sand filter system is a tank within the meaning of RCRA and, since tanks were not regulated when the suit was filed, it was exempt from the law. He dismissed EPA's contention that the filter system is not a tank because it does not have an artificial bottom to collect sediment. A new rule scheduled to take effect June 30 will extend the RCRA requirements to hazardous waste tanks, but Brown Wood Preserving's tanks were not covered by RCRA when the complaint was filed in 1984, according to the administrative law judge. Moreover, Brown Wood Preserving should have been exempt from RCRA regulation in any case since the company generated less than 1,000 kilograms of sludge each month, thus additionally qualifying it for a small generator exemption under the rules in effect at the time, according to Yost. The small generator limit was reduced in the 1984 RCRA amendments to 100 kilograms a month, but the higher limit was in effect when EPA issued its original complaint.

RCRA FY '87 PLAN SETS NEW PRIORITIES

EPA's most important RCRA activity for fiscal 1987 is the permitting of all land disposal facilities by the November 1988 statutory deadline, according to the hazardous waste office's implementation plan. Ensuring proper closure, enforcement against groundwater violators, permitting new treatment and storage facilities, and inspections are the other top priorities.

The new implementation plan suggests categories for states and regions to use when deciding which hazardous waste handlers to take action against. In the past EPA has used "environmental significance" as the criterion for deciding who to enforce against first. The new categories assume that all land disposal facilities and many incineration facilities are environmentally significant and that choices will have to be made among them. EPA defines the new categories for facilities seeking RCRA permits or closure as follows:

- Category 1: Includes handlers with known releases of concern and known human or sensitive environmental receptors.

sources that will allow "continued progress toward a healthier Great Lakes ecosystem," with a preliminary report due Dec. 31.

The governors also have denounced business attraction ploys that involve plans to weaken enforcement and public health standards. Moreover, they have agreed to exchange additional information as their environmental agencies develop new guidelines for water quality and chemical discharge control. The states are to notify one another about accidental discharges and will cooperate in quantifying toxic chemicals entering the lakes "from all sources."

Available funding. Peter Wise, director of EPA's Great Lakes National Program office, suggests that state regulators looking for long-term funding consider money that is available under Section 106 of the federal Clean Water Act. About \$17.2 million is available to the Great Lakes states under this section. The provision, Wise explains, "gives base grants to the states to run their clean water programs." The money can be used to revise water quality standards and to monitor water vitality.

Besides the backing of industry, the pact draws key support from environmentalists, as well as the Canadian provinces of Ontario and Québec. The provinces are expected to adopt the

goals of the regulatory plan after signing a formal memorandum of understanding with the Great Lakes states later this year. A task force that includes environmental experts from the eight states and the two provinces will meet throughout the summer, starting in July. A memorandum could be signed as early as Oct. 1.

'Nothing to dispute.' A Dow Chemical spokesman, nevertheless, notes that the new agreement "is very general" and outlines goals that require specific follow-up regulatory programs. In other words, he says, "there's nothing to dispute at this point."

Michael J. Donahue, research director of the Center for the Great Lakes, a not-for-profit environmental foundation, says that the states have committed themselves to building a better data base on toxic chemicals in the five lakes "and that is absolutely essential to effective regulation."

The Dow spokesman, meanwhile, says his company is satisfied that the Great Lakes states "have done about as good a job as can be done [to promote] uniformity." He adds that Dow is convinced that regional regulators "have taken everyone's opinions into consideration and that they've relied heavily on sound scientific data." □

JEFFREY TREWHITT in Chicago

ment. But, under the EPA theory, anything generated from the interaction of the nonhazardous wastewater and naturally occurring bacteria, as would happen when the water was sprayed on spray fields, was by definition a K-001 bottom sediment sludge.

Brown Wood also ran into hassles with regulatory red tape. The company was classified by EPA as having a facility that will treat, store or dispose of hazardous waste, because in regulatory paperwork the company indicated that it planned to treat, store or dispose of hazardous waste. They did so because, when the regulatory form was filled out, Brown Wood was considering a method to treat its sludge on site, but later decided to have it shipped off site for licensed disposal. Repeated attempts to later clear up the matter failed.

K-001. Brown Wood said that it generated the K-001 sludge in the sand filter only, which the company believed qualified as a "tank" not subject to RCRA, and that it was a small-quantity generator. Meanwhile, deadlines under RCRA were coming due, and regulators told the company it had to provide proof of insurance and financial responsibility to Alabama regulators.

Meanwhile, EPA relieved Alabama of some of its authority to run parts of the RCRA program, and in March 1984, EPA filed a complaint against Brown Wood to assess a penalty of \$5,000 for failing to file the financial and insurance documents. The agency then charged Brown Wood with failing to have groundwater monitoring systems in place around the tank that the company said was exempt from RCRA. That raised EPA's proposed assessment on the company to \$24,000. **Yost's decision dismissed EPA's claims for penalties under RCRA, stating that none of Brown Wood's units are subject to RCRA.**

JOSEPH F. DUNPHY

Brown Wood bests EPA

A long-standing dispute between the Environmental Protection Agency (EPA) and a small creosote treatment company, Brown Wood (Brownville, Ala.), has been settled by Thomas B. Yost, an EPA administrative law judge who ruled in favor of the company. In his ruling, Yost said that EPA must not add to the definitions under a law to "suit its own ideas of what the regulations mean." According to Victor E. Lindenheim, of the American Wood Preservers Institute, Brown Wood's victory is also a victory for wood preservers.

The dispute, dating back to 1984, was over whether Brown Wood stored or disposed of a hazardous waste—a type of sludge called K-001—at its facility. Brown Wood said it did not store the material, but EPA's interpretation was that the company's process, of necessity, did generate a hazardous waste, thereby making the plant subject to regulation under the Resources Conservation and Recovery Act (RCRA).

Yost ruled that at no time did Brown

Wood "nor the wood processing industry generally, understand that the spray fields" installed to comply with the Clean Water Act, and in some cases the storage ponds, "were regulated units under RCRA." Moreover, he notes, EPA's decision that these units are regulated arose in interagency memos and were "an unpublished theory." As a result, he said, the decision was not made in line with the Administrative Procedures Act, which requires publication and hearings.

State of the art. Brown Wood's system for treating process water, according to the decision, "follows specifically the state-of-the-art methodology established by EPA under the Clean Water Act." The system includes two large settling tanks in which creosote sinks to the bottom and is recycled. Some water is subject to flocculation, and then the product is pumped onto a hill, to a sandbed filter, and water passes through filters to a spray irrigation field, where it receives additional treat-

High stakes under Florida's waterways

After being mired in the courts for a decade, a complex legal argument over who owns the mineral rights to land located under Florida's navigable waterways has suddenly broken free. The Florida Supreme Court late last month issued a ruling that is unfavorable to seven phosphate companies mining on such land. The companies quickly petitioned the court for a rehearing, and the small oil exploration firm that claims to hold the rights made plans to

KOPPERS

RECEIVED
JUN 18 1986

June 12, 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Jim Hardage
Hazardous Waste Section
Mississippi Dept. of Natural Resources
Post Office Box 10385
Jackson, MS 39209

RE: Koppers Company, Inc.
MSD 007 027 543
Inspection on May 20, 1986

Dear Mr. Hardage:

An interim status inspection was made at the Koppers Grenada facility in conjunction with the EPA Groundwater Task Force visit the week of May 19, 1983. During that inspection a number of deficiencies were noted. Koppers submits the following corrective action schedule in response to your letter of May 30, 1986.

- OK 1. A portion of the fence surrounding the surface impoundment was not secure, i.e., there was a crawl space underneath the fence. This "crawl space" was of minimal size, (less than 15 inches in diameter), and did not allow "unknowing entry" to the surface impoundment. Although we do not agree that this "crawl space" is a violation of section 265.14 MHWMR, Koppers will remedy the situation by July 31, 1986.
- OK 2. There was no aisle space in the drum storage area. All future shipments of fuel additive received by the Grenada facility will be stored so that the label and accumulation time for each container is visible for inspection.
- OK 3. With respect to the Spray Field, we call your attention to the recent opinion of Judge Thomas Yost, (EPA Region IV) which held that Spray Fields are not subject to RCRA regulations, and are not regulated units. As such, Koppers is not obligated to manage its Grenada Spray Field as a RCRA facility.

OK Please note, that in addition to these items, the two manifests discussed in your letter have been corrected. All future manifests will be inspected for compliance with MHWMR prior to receipt and storage of the waste.

↑
denies that sprayfield
is RCRA unit for
first time

Mr. Jim Hardage
June 12, 1986
Page 2.

Please contact me at this office if you have any questions regarding this submission.

Sincerely yours,

Martin M. Schlesinger

Martin M. Schlesinger
Project Manager
Hazardous Waste Affairs

MMS/mas

cc: C. P. Brush
J. D. Clayton
C. P. Markle
B. Peebles
J. Scarbrough - EPA IV

OF SOLID WASTE

ED BY *JH*

Final review 6/30/86

MENTS

*It was noted during the
sumu inspection on 1-14-87
that the spray field was
surrounded by a fence, i.e.,
access was controlled.*

JH 2/5/87

May 30, 1986

Mr. J. D. Clayton
Koppers Company, Inc.
P. O. Box 160
Tie Plant, Mississippi 38960

FILE COPY

Dear Mr. Clayton:

Re: Koppers Company, Inc.
MSD007027543
Inspection on May 20, 1986

An interim status inspection was made at the referenced facility, in conjunction with the EPA Groundwater Task Force visit the week of May 19, 1986. A copy of the inspection checklist is enclosed for your records.

The following deficiencies were noted during the inspection:

<u>Deficiency</u>	<u>Reference</u>
1. Access to the spray field was not controlled.	Section 265.14 Security, Mississippi Hazardous Waste Management Regulations (MHWMR).
2. Warning signs were not posted around the spray field.	Section 265.14, MHWMR.
3. A portion of the fence surrounding the surface impoundment was not secure, i.e., there was a crawl space underneath the fence.	Section 265.14, MHWMR.
4. There was no aisle space in the drum storage area.	Section 262.34 Accumulation Time, MHWMR.

A plan and schedule for correcting these deficiencies must be submitted by June 16, 1986.

Koppers maintains that the drums on the concrete pad adjacent to the boiler house are stored less than ninety days. Nevertheless, Koppers must store the drums so that the hazardous waste label and accumulation time on each container is visible for inspection. Double rows, with an aisle space of five feet between the rows, is recommended in order to meet the preparedness and prevention requirements specified in Section 265.35 of the MHWMR.

Mr. J. D. Clayton
Koppers Company, Inc.
Page -2-

In addition to these items, it was noted that two manifests, for incoming shipments of waste from other Koppers facilities, did not have the EPA identification number for the Koppers Tie Plant (Grenada) facility. All facilities shipping waste to the Tie Plant facility should prepare a manifest according to the instructions included in the Appendix to Part 262 Generator Standards of the MHWMR.

If you have any questions about this matter, please contact me.

Sincerely,

CHD for

Jim Hardage
Hazardous Waste Section

JH:cm

Enclosure

cc: Mr. James Scarbrough, EPA (w/enclosure)
Mr. Martin Schlesinger
Mr. Charles Brush
Ms. Sharon Matthews (w/enclosure)

FILE COPY

May 30, 1986

Mr. Charles ~~Branch~~ ^{Brush}
Program Manager
Hazardous Waste Affairs
Koppers Company, Inc.
436 Seventh Avenue
Pittsburgh, Pennsylvania 15219

Dear Mr. Branch:

Re: Koppers Company, Inc.
HSD007027543
Groundwater Monitoring

On March 12, 1986, Mike Bradshaw, with the Hazardous Waste Section of the Bureau of Pollution Control, inspected the Koppers Tie Plant (Granada) facility for compliance with interim status standards covering groundwater monitoring. A copy of the compliance checklist is enclosed for your records.

At the time of the inspection, it was thought that Koppers was monitoring on a quarterly basis. However, the annual groundwater report did not include or reference any current (1985) groundwater monitoring data for the surface impoundment.

Further, during my site visit the week of May 19, 1986, Martin Schlesinger indicated that there had been no quarterly monitoring of the surface impoundment for the latter part of 1985.

The groundwater assessment report that Koppers submitted on September 27, 1985, indicated that hazardous waste constituents from the facility had entered the groundwater. Therefore, Koppers appears to be in violation of the following groundwater monitoring requirements:

1. Section 265.93 (d)(7) of the Mississippi Hazardous Waste Management Regulations (MHWMR), which, to paraphrase the regulations, requires the facility owner or operator to continue a groundwater quality assessment program on a quarterly basis that, at a minimum, determines the rate and extent of hazardous waste constituents in the groundwater and the concentration of the hazardous constituents in the groundwater; and
2. Section 265.94 (b)(2) of the MHWMR, which requires the facility owner or operator to submit an annual report containing the results of the groundwater quality assessment program which includes the rate of migration of hazardous waste constituents in the groundwater during the reporting period.

In addition to these apparent deficiencies, the Koppers groundwater assessment and the recodified January, 1986 Part B permit application appear to be deficient, based on a preliminary review of the groundwater information by our staff hydrologist. (See attached list of comments.)

FILE COPY

Mr. Charles Branch
May 30, 1986
Page -2-

Additional comments on the recodified Part B permit application, including EPA comments, will be forwarded to you when the review is completed.

The Commission on Natural Resources is scheduled to meet on June 13, 1986. It is our intention to bring this matter before the commission at its regular meeting in June.

If you have any questions about this matter, please contact me.

Sincerely,

Jim Hardage
Division of Solid Waste Management

JH:vgr

Attachment

cc: Mr. Martin Schlesinger
Mr. J. D. Clayton
Mr. James Scarbrough, EPA

Comments Re: Kopper's Groundwater Study and Part B Information (Revised 1/86
Edition For Surface Impoundment)

1. Define the uppermost aquifer.
2. Supply a contour map of the confining layer of the uppermost aquifer.
3. Assess the possibility of hydraulic or chemical interconnection of the uppermost aquifer with the next most shallow aquifer and demonstrate a lack of connection.
4. Define the horizontal and vertical extent of the NAPL Plume, dissolved plume and vadose zone contamination.
5. Explain the presence of 180 ppb naphthalene in the R5 background well in December, 1984, and 110 ppb in February, 1985. Include in this discussion the much lower levels of contamination found in Monitoring Well R6 for the same time.
6. Determine the rates and directions of migration for contaminant plumes. Also, estimate mass of contaminant plumes.
7. Supply referenced, formulas and detailed step by step calculations for all hydrologic computations used in the report.

JH:vgr



Drew Chemical Corporation

One Drew Chemical Plaza, Boonton, NJ 07005, (201) 263-7935

RECEIVED

APR - 2 1986

March 31, 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. Jim Hardage
Bureau of Pollution Control
P.O. Box 10385
Jackson, Mississippi 39209

Dear Mr. Hardage:

As previously discussed, a copy of the hazardous waste manifest received from Chemical Waste Management is enclosed for your records. Our waste Amerfloc 10 was removed from Koppers, Grenada, Mississippi, on February 28, 1986. Please call me at (201) 263-7935 if any additional information is required.

Sincerely yours,

Stephen M. McIntyre
Stephen M. McIntyre

SMM/cas
Enclosure

cc D. R. Sexsmith
D. A. Hartmann
G. A. Cappeline
S. J. Wojcik
F. R. Mahn

DIVISION OF SOLID WASTE

REVIEWED BY *JH*

DATE *4/15/86*

COMMENTS *Drew Chemical Corp.*

*obtained a temporary EPA ID No.
from our office for above mentioned
shipment. attached manifest
documents waste disposal at
Emelle facility.*



HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

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

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

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Pine Chemical Corp. 1000 Plaza Canton, N.J. 07065		4. Generator's Phone (701) 263-7935		A. State Manifest Document Number CWMA 257764		
5. Transporter 1 Company Name Durbin Environmental Inc.		6. US EPA ID Number GA1000010254		B. State Generator's ID		
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459		10. US EPA ID Number ALD000622464		D. Transporter's Phone		
				E. State Transporter's ID		
				F. Transporter's Phone		
				G. State Facility's ID		
				H. Facility's Phone 205/652-9721		
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers	13. Total Quantity	14. Unit Wt/Vol	1. Waste No.	
a. Waste Solids, N.O.S. / Corrosive Material CWM Profile Number ASH 00073		No. Type				
b. Hazardous Waste Solid, N.O.S. ORM-E / NA 9159 CWM Profile Number ASH 00073						
c.						
CWM Profile Number						
d.						
CWM Profile Number						
J. Additional Descriptions for Materials Listed Above		K. Handling Codes for Wastes Listed Above				
1) 205 Amefloc 10 Cationic Coagulant		a. BC				
2) 28-55gal drums solidified Amefloc 10 cationic coagulant		b. D81				
15. Special Handling Instructions and Additional Information place in GC						
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.						
Printed/Typed Name Garry Cappelino		Signature Garry Cappelino as agent 10/27/86				
17. Transporter 1 Acknowledgement of Receipt of Materials						
Printed/Typed Name Emory V. Cantrell		Signature Emory V. Cantrell 10/27/86				
18. Transporter 2 Acknowledgement of Receipt of Materials						
Printed/Typed Name		Signature Month Day Year				
19. Discrepancy Indication Space						
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name MIKE Harris		Signature Mike Harris 10/27/86				

KOPPERS

RECEIVED
MAR 3 1986

February 19, 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. James Hardage
Mississippi DNR
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

RE: Ground Water Sampling
Sprayfields - Grenada Plant
MSD 007 027 543

Dear Mr. Hardage:

This is to advise you that today February 19, 1986 the analysis of the last round of accelerated groundwater sampling at the Grenada Plant Sprayfield arrived in our offices. We are today beginning the Student t test on the data and will transmitt all of the data and the Student t test results to you by March 1, 1986.

I trust that you will note this work has been accomplished for purposes of complying with the Commissions' Order.

Sincerely yours,



Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs

CPB/mas

cc: Plant Manager

RECEIVED BY HH
DATE MAR. 3, 1986
COMMENTS _____

KOPPERS

RECEIVED
FEB 21 1986

February 17, 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Mr. James Hardage
Mississippi Department of
Natural Resources
P. O. Box 10385
Jackson, MS 39209

RE: Koppers Grenada, Mississippi
Recycling

Dear Mr. Hardage:

Enclosed is a review of the production process at Grenada along with a flow diagram of the water flow within the plant. Water continually comes into the process via the wood itself, and the oil (preservative) must be cleared of the water so that it can continue to be used in treating. High temperature oil and water mixtures cannot be used in the treating process.

Also enclosed are copies of flow diagrams for Wood Treating Plants found in the USEPA Development Document for Effluent Limitations Guideline New Source Performance Standards and Pretreatment Standards for the Timber Products Processing Point Source Category (PB81-227282) 1981.

Please telephone or write me if additional material is desired.

Sincerely yours,



Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs

CPB/mas

Enclosure

DEPT. OF SOLID WASTE
REVIEWED BY JH
DATE 2/26/86
COMMENTS _____

KOPPERS GRENADA, MISSISSIPPI WOOD TREATING PLANT

Background of Process

The Grenada plant is a wood treating plant that uses creosote and pentachlorophenol/KB-3/#2 diesel fuel for its wood treating process. The plant currently produces 12,000-13,000 Ft³ of wood daily.

The existing wastewater treatment system consists of a biological lagoon and sprayfield; treatment occurs in the order given. The wastewater system is preceded by a surge tank for equization and oil/water separators.

The water used for the condensing of wastewater is taken from a plant cooling pond.

Figure 1 is a flow diagram of the water treatment system for this plant.

Water Treatment System

Presently, all of the process water is collected in a surge tank before it passes the oil/water separator. Oil is returned to the process and wastewater is pumped to the lagoon and sprayfield. As illustrated, the surge tank receives water from several locations. Referring to Figure 1, Sump #1 collects surface runoff from both the work tank area and #2 diesel fuel area. Sump #2 collects water from several areas: the treating cylinder basement, the creosote condensation tanks, and the condensation tank area. Sump #3 collects water from the drip track area. The penta tank receives water that is drawn off through the recovery of penta from the oil/water separator.

The creosote sump receives water from several areas. Referring to Figure 1, the steam tank used in the pretreatment of green wood, is discharged into the creosote sump via the blowdown tank. The water that is collected in the equipment deck also runs off into the creosote sump.

The penta separation tanks receive wastewater from the penta sump. The penta sump receives wastewater primarily from the penta condensation tank.

Admits ↑
that
sprayfield is part
of treatment system

There are presently two oil/water separators running in series, but they may be used separately if conditions occur. The first separator receives the water from the surge tank. At a point prior to the tank, a flocculations agent is dispersed. The water passes through the first separator to the second separator, and is then pumped to the biological lagoon. The flow rate to the lagoon is approximately 5,000 to 10,000 gallons/day. The water in the lagoon is aerated through spray nozzels, then the wastewater is periodically pumped to the sprayfield. (See RCRA Part B Application.)

A cooling pond is located near the work tank area. The pond is used to contain the recycled non-contact cooling water and the boiler blowdown discharge. Spray nozzels within the pond are used occasionally for cooling and evaporation purposes.

The emergency pond is located beside the cooling pond. This pond is used to contain water that overflows from the cooling pond.

The dehydrator is used to dewater creosote before it is recycled to the wood treating process. The creosote from the surge tank is collected periodically and dehydrated. The creosote is then transferred to the 60/40 tank and remaining water evaporated into the atmosphere.

The penta is also recycled back to the wood treating process. Referring to Figure 1, penta from the surge tank, #4 sump and the penta separator tanks is collected periodically and put back into the work tanks.

Prior to the 1984 Amendments, bottom oil from the oil/water separators was sometimes disposed of, rather than re-cycled to the process because of the amount of dirt (soil-wood fiber) present. Top or floating oil was always recycled after decanting because it did not transport dirt to the process. Creosote has a sp.gr. of about 1.3 and settled to the bottom along with soil.

In order to meet the requirements of waste minimization, a review of the handling of bottom oil began in late 1984. The only objection to recycling this oil directly was the dirt which would interfere with equipment and wood treat-

ing. The oil was not degraded or spent. Removing dirt was the key to recycling.

Testing began in early 1985 and concluded in November 1985 when a successful filter using "Tracker Industry" mobile filter (plate and frame). The Tracker equipment batch processed the oil that had been accumulated in anticipation of recycling. A fine filter was used to separate soils from the oil and water in the residue.

The oil is a material being reused in the original wood treating process from which it was generated without being reclaimed. Removing dirt (soil) and decanting water are not processing or regeneration of the oil. Most industrial processes using oil or solvents (such as dry cleaning) require filters to keep the process fluids clean.

Oil was returned to the process for re-use, water was placed in the oil/water separator to avoid any human/machine accident which might discharge creosote directly to the Surface Impoundment, and the dirt was manifest off-site to a secure landfill as K-001. The justification for using K-001 for this residue is the USEPA Region IV* position of allowing wood treaters to use K001 for residues other than bottom sediment sludge from wastewater treatment of wood preserving plants. The dirt manifested off-site was about 60% solids (soil) and 30 to 40% moisture and resembled ordinary soil. The Btu value was about 1350 Btu's/lb and indicates a very small amount of preservative being lost from the system.

Figures 111-2 thru 111-6 are typical process flow diagrams for wood treating plants using various conditioning methods as found in the Development Document for Effluent Guidelines for the Timber Products Processing industry (PB81-227282).

* Mr. Allan Antley to Mr. Larry G. Johnson of CSX Corp. December 13, 1985.

Date - February 1, 1986

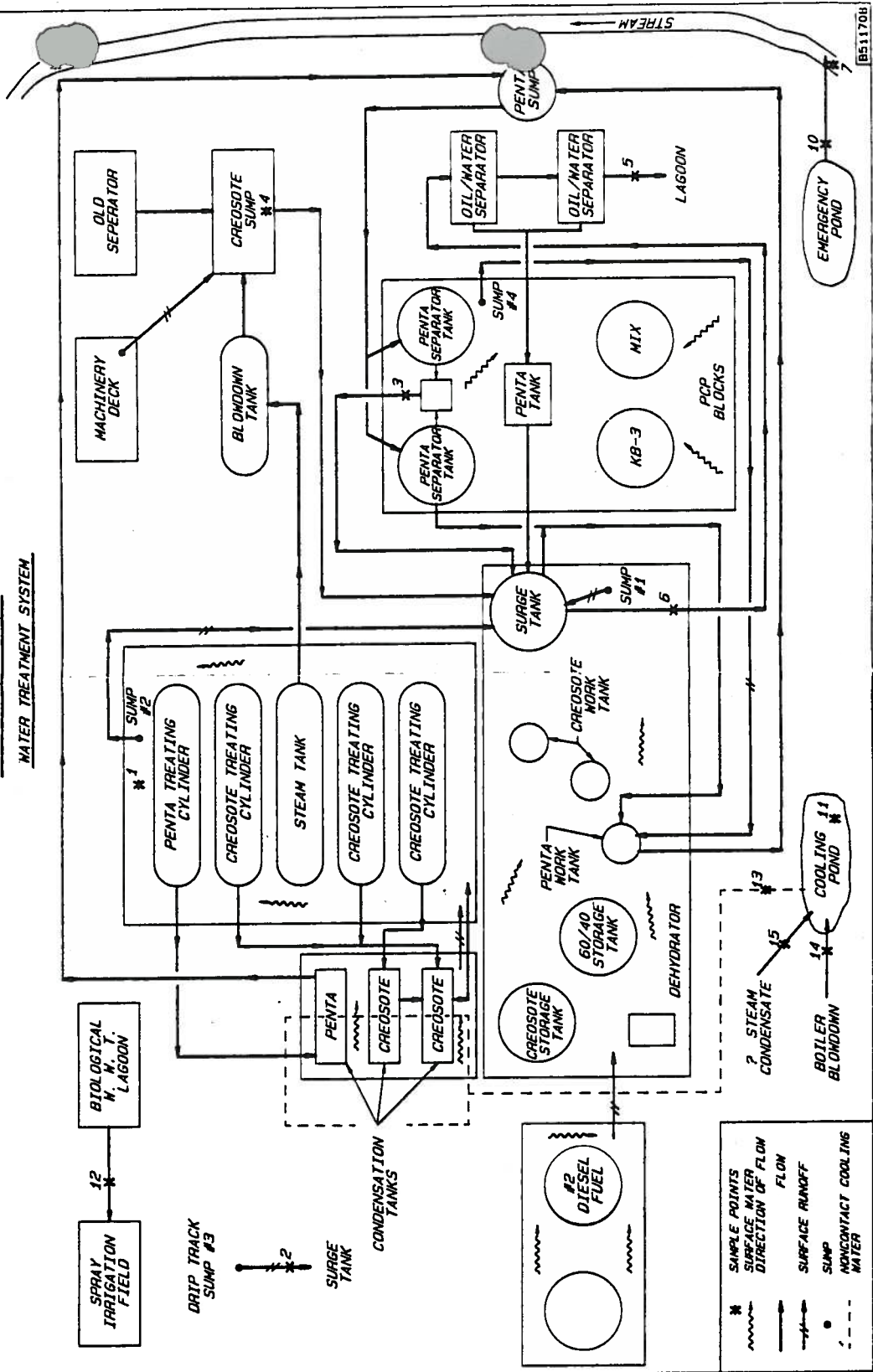
Enclosure

Figure 1 - Flow Diagram for Plant

Figures 111-2 thru 111-6 for all Wood Treating Plants

C. P. Brush, P.E.

FIGURE 1
KOPPERS COMPANY, INC.
GRENADA PLANT, MISSISSIPPI
FLOW DIAGRAM OF THE
WATER TREATMENT SYSTEM

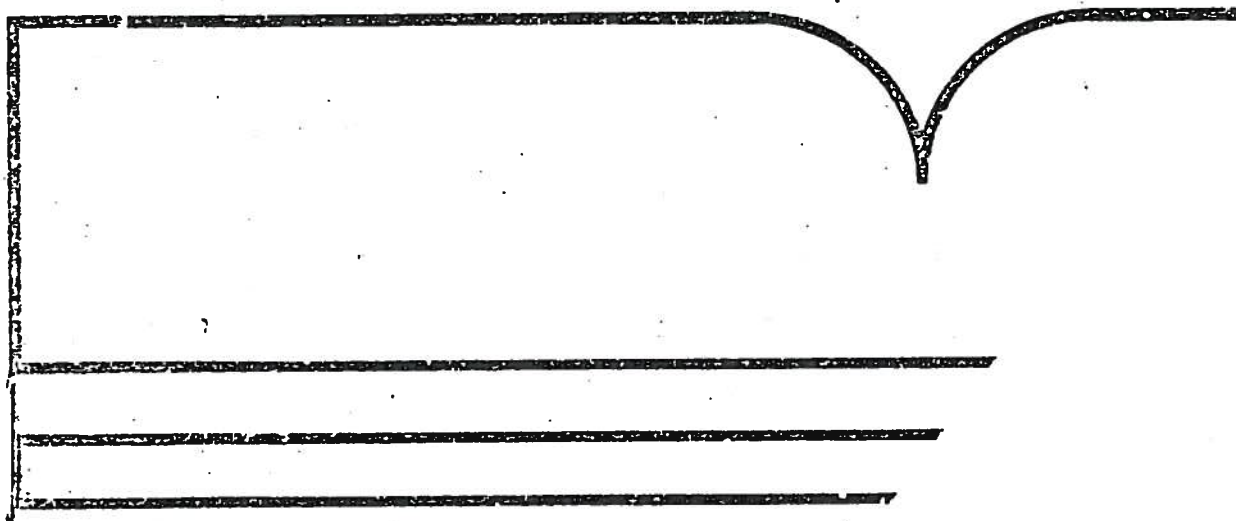


PB81-227282

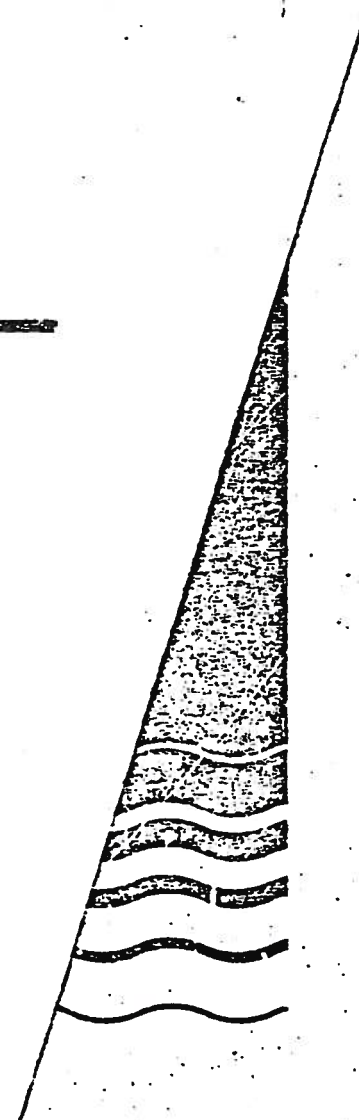
Development Document for Effluent Limitations
Guidelines New Source Performance Standards and
Pretreatment Standards for the Timber Products
Processing Point Source Category

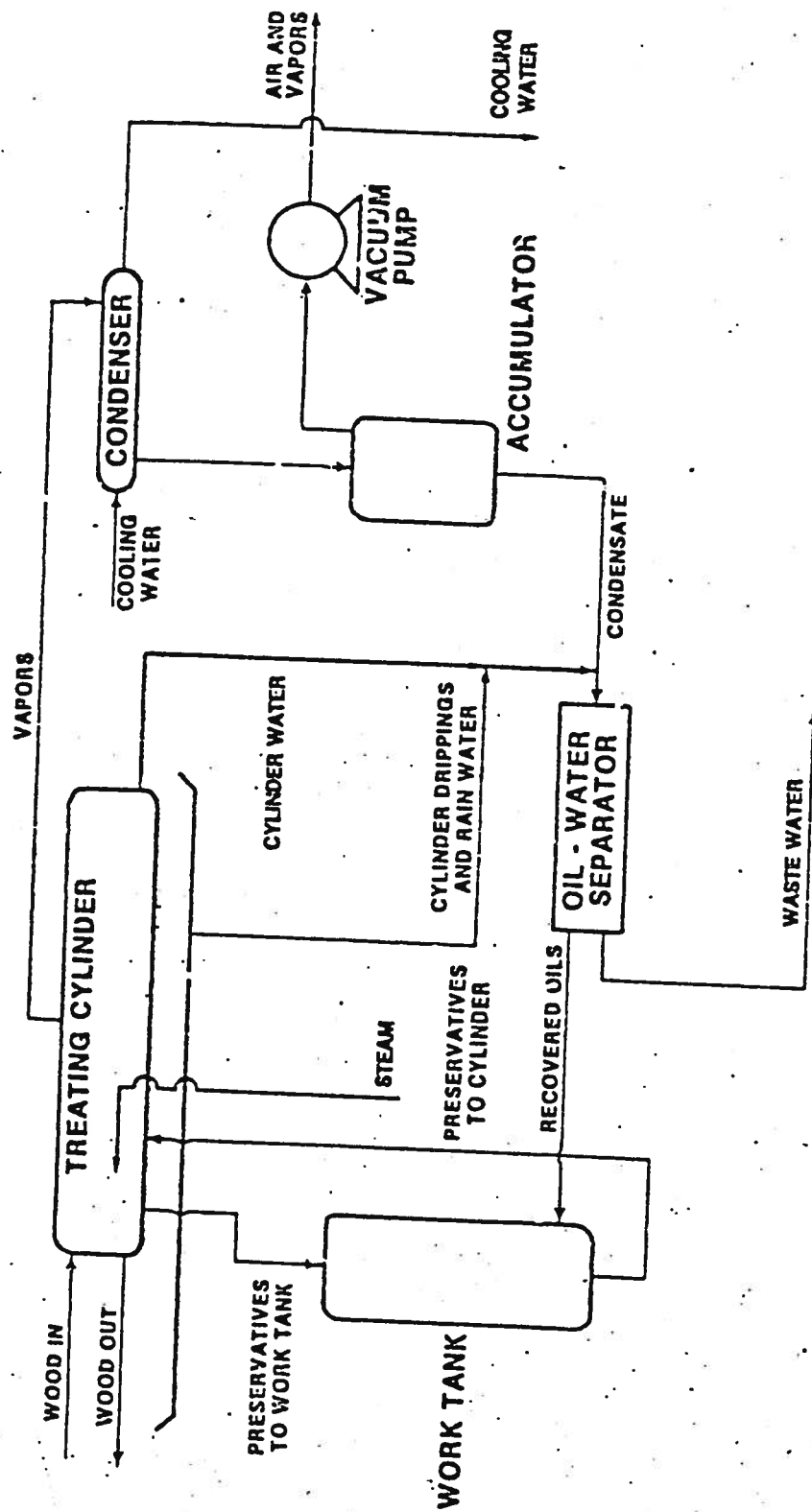
(U.S.) Environmental Protection Agency
Washington, DC

Jan 81

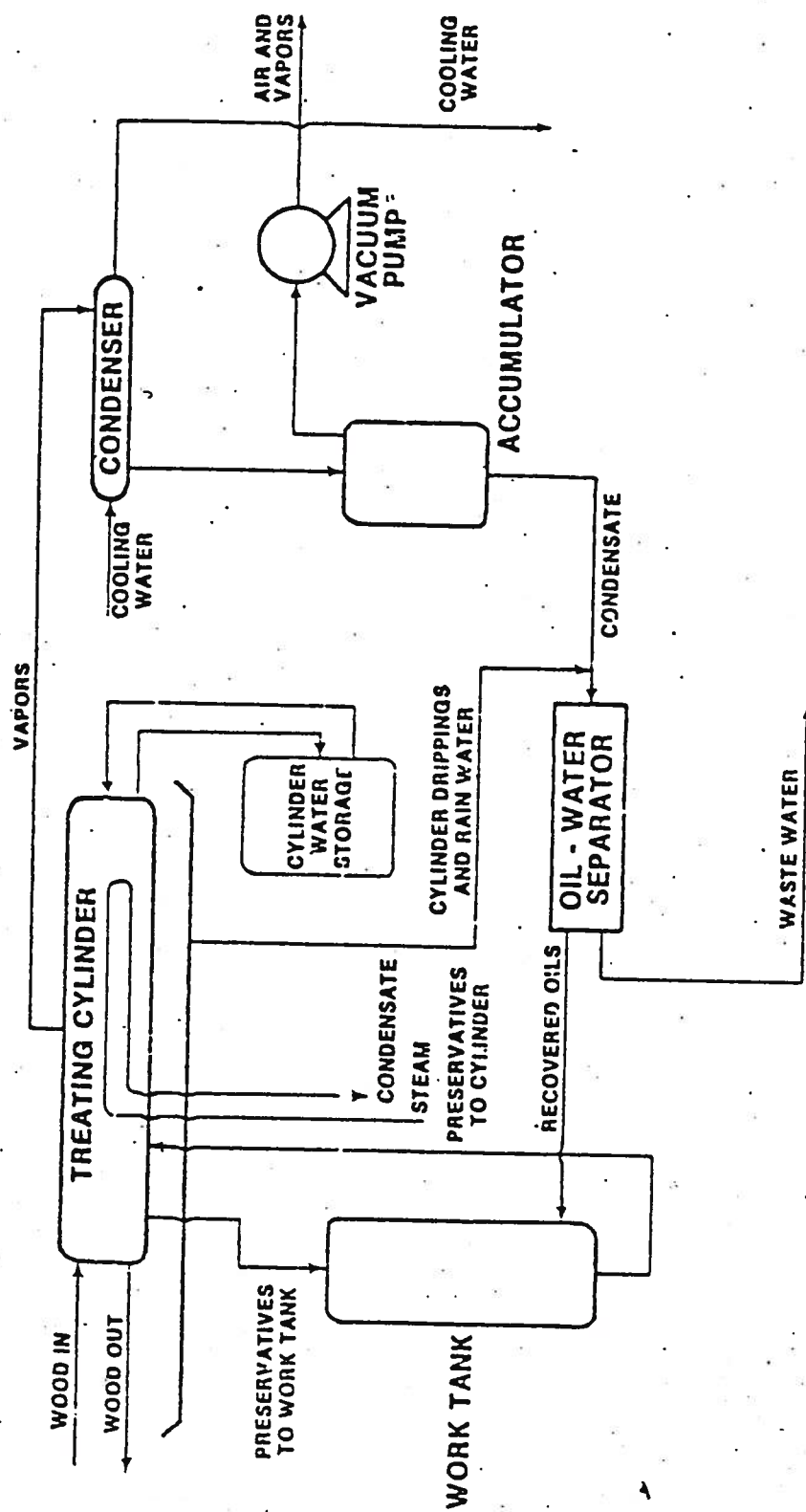


U.S. Department of Commerce
National Technical Information Service



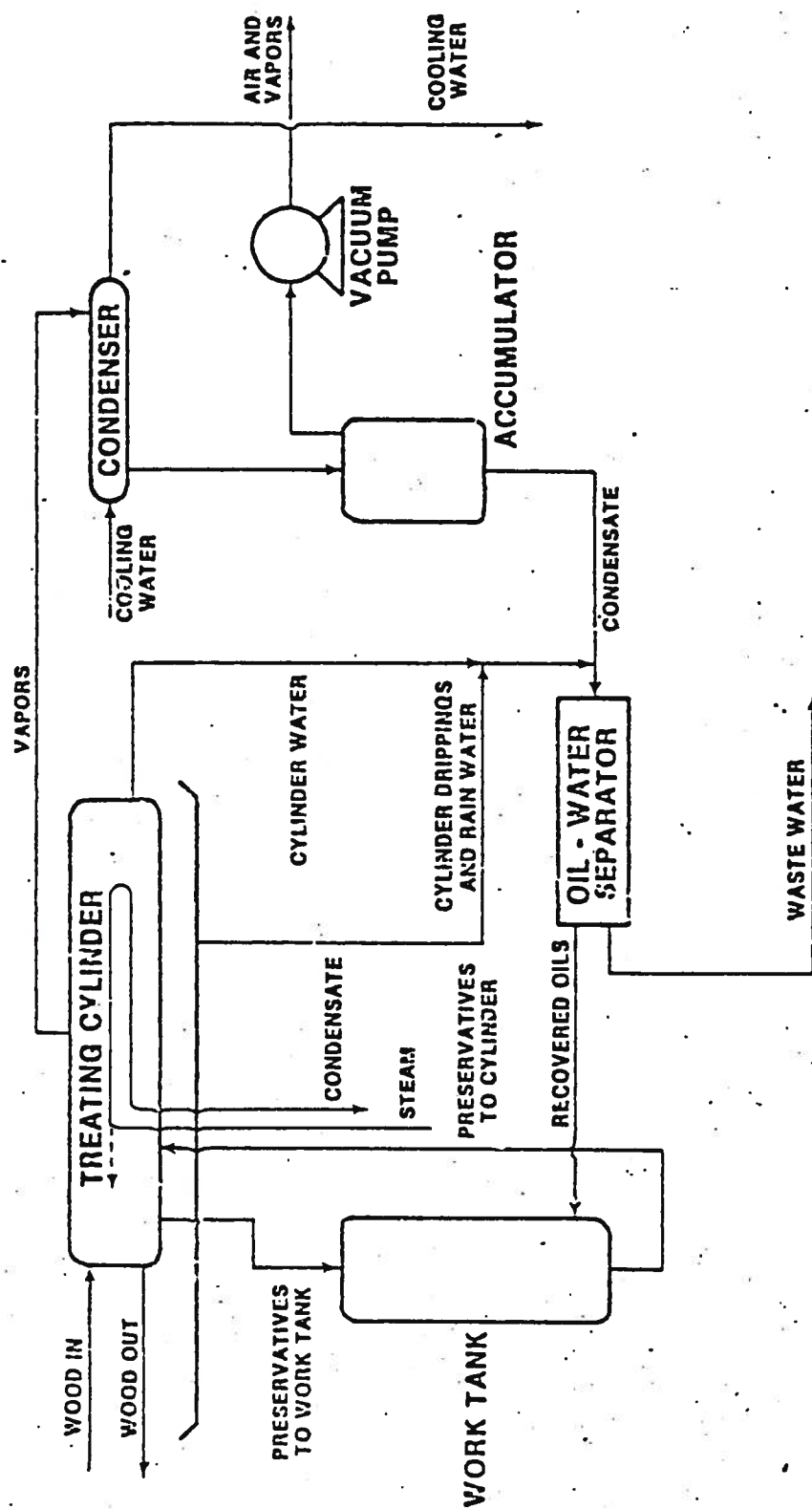


OPEN STEAMING PROCESS WOOD TREATMENT PLANT

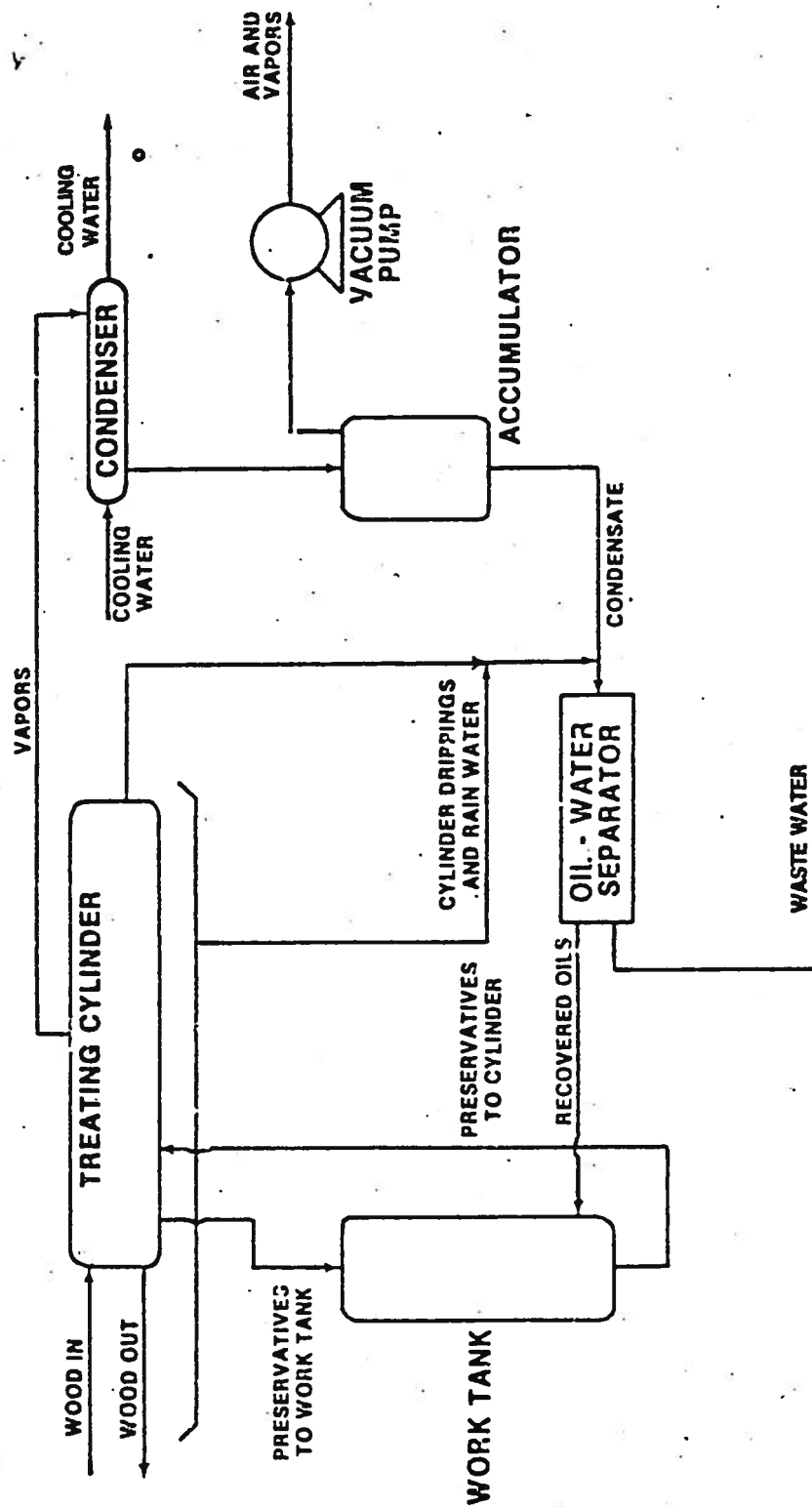


CLOSED STEAMING PROCESS WOOD TREATING PLANT

Figure III-3

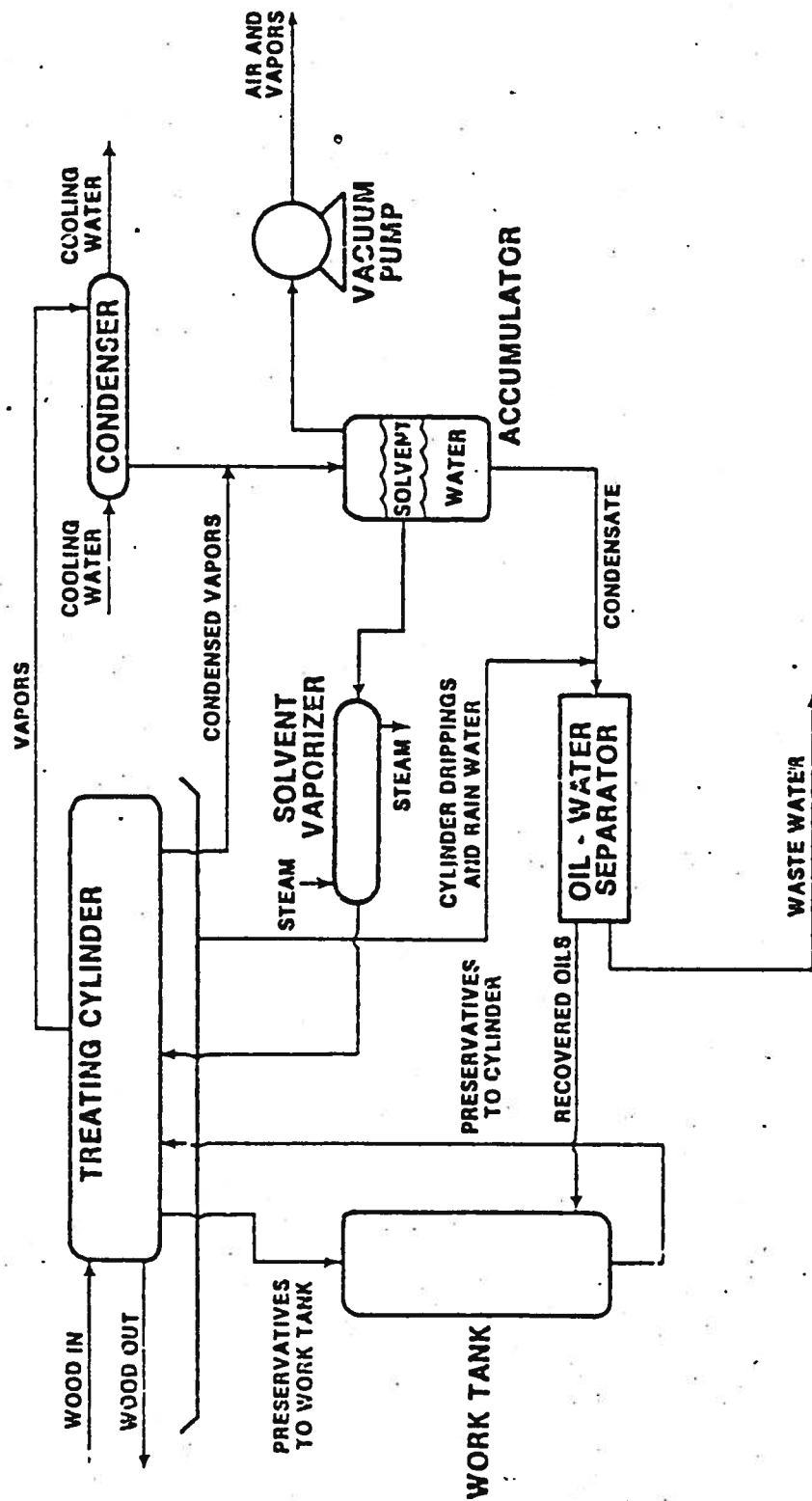


MODIFIED STEAMING PROCESS WOOD TREATING PLANT



BOULTON WOOD TREATING PLANT

Figure III-5



VAPOR CONDITIONING PROCESS WOOD TREATING PLANT

KOPPERS
Architectural and
Construction Materials

February 14, 1986

Mr. Jim Hardage
Mississippi Department of Natural Resources
Bureau of Pollution Control
Post Office Box 10385
Jackson, Mississippi 39209

RECEIVED
FEB 19 1986
DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Dear Mr. Hardage:

This letter is a follow-up to my letter of November 18, 1985, to Mr. Jack McMillan, concerning Koppers' intent to recycle the API separator material stored in drums at our Grenada facility through the TRACKER-Oil Recovery Service, Inc.'s "filter" process. TRACKER was in the Grenada plant from December 3 through December 9, 1985. During that time all 322 drums of API separator material in storage for recycling and 23,481 gallons of additional material from both API separators were processed through the TRACKER "filter" system. The effluent and oil from the filtration system was processed through the plant's waste water treatment system. The approximate ratio of water, oil and solid separated from the filter process were 75%, 5% and 20%, respectively. All solid cake material from the filter process was manifested to Chemical Waste Management, Inc. in Emelle, Alabama on December 19, 1985. See two attached manifests. It is Kopper's opinion that the API separator waste is not a hazardous waste. This waste was manifested as a hazardous waste only to assure proper handling, transportation and disposal. Since recycling the API separator material the total number of drums in storage at the Grenada plant has been below 90 drums.

I hope this brings your records up to date. If you have any questions concerning this project, please call me at 501-945-4581.

Sincerely,

David L. King

David L. King
Regional Environmental Coordinator

DLK/lf

cc C. P. Markle
J. D. Clayton
C. P. Brush

DIVISION OF SOLID WASTE

REVIEWED BY *JH*

DATE *2/24/86*

CCP - P. 100



HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

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

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

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address Koppers Company, Inc. P. O. Box 160 Tie Plant Road, Tie Plant (Grenada), Ms. 38960		MS D0070275430001		A. State of Alabama CWMA 262091 B. State Generator's ID	
4. Generator's Phone 601 226-4584		5. US EPA ID Number		C. State Transporter's ID D. Transporter's Phone E. State Transporter's ID F. Transporter's Phone	
7. Transporter's Name Anchor Transport		8. US EPA ID Number 8 N D 0 4		G. State Facility's ID 219-938-7020 H. Facility's Phone 205/662-9721	
9. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459		10. US EPA ID Number A L D 0 0 0 6 2 2 4 6 4			
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No.	13. Total Quantity	14. Unit Wt/Vol	15. Hazard Class
a. Hazardous Waste, Solid, N.O.S. (contains Creosote and Pentachlorophenol) ORM-E NA 9189 ALA D40759		1	1	P	3
b. CWM Profile Number					
c. CWM Profile Number					
d. CWM Profile Number					
16. Special Handling Instructions and Additional Information		K. Handling Codes for Wastes Listed Above			
When handling wear protective equipment such as impervious gloves and eye protection		a. b. c. d.			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable International and national government regulations.					
Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.					
Printed/Typed Name		Signature		Month Day Year	
17. Transporter Acknowledgment of Receipt of Materials		Signature		Month Day Year	
Printed/Typed Name		Signature		Month Day Year	
18. Discrepancy Indication Space					
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.					
Printed/Typed Name		Signature		Month Day Year	



HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

70680

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

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

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address Koppers Company, Inc. P. O. Box 150 Tie Plant (Road) Tie Plant (Grenada), Ms. 38960		MSD 0070273430002		A. State Generator's ID CWMA 262092	
4. Generator's Phone 601-335-1111		5. US EPA ID Number ALD 000622464		B. State Generator's ID	
6. Transporter's Company Name Jack Crab Transport		7. US EPA ID Number ALD 042634875		C. State Transporter's ID	
8. Designated Facility Name and Site Address CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459		9. US EPA ID Number ALD 000622464		D. State Transporter's ID	
10. US EPA ID Number ALD 000622464		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		E. State Facility's ID 219-9197020	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		13. Total Quantity	
a. Hazardous Waste, Solid, N.O.S. (contains Creosote and Pentachlorophenol)		No. Type		Unit	
b. ORM-E NA 9189		ALA D40759		WT/Vol	
c. CWM Profile Number					
d. CWM Profile Number					
e. CWM Profile Number					
15. Special Handling Instructions and Additional Information RCRA Section 3004 (G) For Dave King 12-20-85 lrw When handling wear protective equipment such as impervious gloves and eye protection		16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.		17. Discrepancy Indication Space	
17. Transporter's Acknowledgment of Receipt of Materials		18. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		19. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.	
Printed/Typed Name		Signature		Month Day Year	
18. Transporter's Acknowledgment of Receipt of Materials		19. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		19. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.	
Printed/Typed Name		Signature		Month Day Year	
19. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.		20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.	
Printed/Typed Name		Signature		Month Day Year	

KOPPERS

Donald H. Cuzzo
General Counsel
Templeton Smith
John F. Ramser
Stephen T. Tomko
Thomas Burgunder
Thomas F. Reid
George Carroll
Edward B. Wood
Thomas R. Hays
Kenneth W. Kubrick
Donald S. Blue
Mary Dombrowski Wright
Jill M. Blundon

February 5, 1986

George L. Williamson
Special Assistant Attorney General
P. O. Box 220
Jackson, MS 39205

RECEIVED
FEB 10 1986
Hobart Richey
Counsel
DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Re: Koppers Company, Inc.
Order No. 951-85

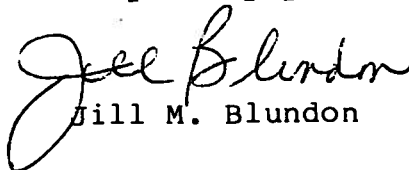
Dear Mr. Williamson:

On January 14, 1986, a meeting between Koppers and representatives of the Mississippi Department of Natural Resources, Bureau of Pollution Control, was held to discuss the above-referenced order. At the meeting, Koppers agreed to provide the Bureau with certain information on the wood preserving process used at Koppers' Grenada, Mississippi facility. Thereafter, the Bureau will discuss with U.S. EPA Koppers' position that the oil-water separator material generated by that process is not a hazardous waste.

Until such time as Koppers receives a response from the Bureau on this issue, I propose that the action initiated by Koppers by the filing of a petition with the Commission on Natural Resources be stayed. Unless we are directed otherwise by the Commission, we will not pursue the petition at this time.

Please give me a call if you have any questions.

Very truly yours,


Jill M. Blundon

JMB/jg

cc: Mississippi Department of Natural Resources
P. O. Box 20305
Jackson, MS 39209

Charles Estes
James Hardage
Mississippi Department of Environmental Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

KOPPERS

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Jill M. Blundon

February 5, 1986

George L. Williamson
Special Assistant Attorney General
P. O. Box 220
Jackson, MS 39205

RECEIVED
Hobart Richey
Tax Counsel

FEB 10 1986

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Re: Koppers Company, Inc.
Order No. 951-85

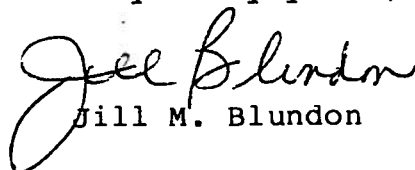
Dear Mr. Williamson:

On January 14, 1986, a meeting between Koppers and representatives of the Mississippi Department of Natural Resources, Bureau of Pollution Control, was held to discuss the above-referenced order. At the meeting, Koppers agreed to provide the Bureau with certain information on the wood preserving process used at Koppers' Grenada, Mississippi facility. Thereafter, the Bureau will discuss with U.S. EPA Koppers' position that the oil-water separator material generated by that process is not a hazardous waste.

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Please give me a call if you have any questions.

Very truly yours,


Jill M. Blundon

JMB/jg

cc: Mississippi Department of Natural Resources
P. O. Box 20305
Jackson, MS 39209

Charles Estes
James Hardage
Mississippi Department of Environmental Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171



M E M O R A N D U M

TO: File

FROM: Jim Hardage JH

SUBJECT: Koppers Company, Inc.

DATE: January 23, 1986

On December 19, 1985, I visited the Koppers facility located in Grenada County. The purpose of the visit was to determine whether or not Koppers had removed the containers of API separator sludge as required by Commission Order No. 95185.

Mr. J. D. Clayton, plant manager, and Donald King accompanied me during the inspection (Mr. King is from the Koppers Plant in Little Rock, Arkansas; he was at the Grenada Plant to oversee the recycling of the sludge).

The status of the project was as follows:

The sludge had been removed from the drums and filtered through a patented process by a commercial contractor (TRACKER). The solids (approximately 30% by weight) resulting from the filter process were being loaded onto a trailer truck. Another truck had already been loaded to capacity. These solids were going to be transported to Chemical Waste Management's facility in Emelle, Alabama for disposal, according to Mr. King. The water and oil fractions (approximately 60% water, 10% oil) resulting from the filter process had been recycled into the "surge" or equalization tank, according to Mr. Clayton.

JH:vgr



Koppers Co, Inc.,
Grenada (Tie Plant) Mississippi Facility.
Picture shows area where drums of API separator
material had been stored prior to reprocessing by
the TRACKER system. Drums were empty at the time of
my inspection on 12/14/85. Jim Hardage



Koppers Co, Inc.
Grenada (Tie Plant) Facility
Picture shows labeling on drum that had contained
API separator material prior to reprocessing by the TRACKER
system. Drums were empty at the time of my inspection
on 12/14/85. Jim Hardage



Koppers Co. Inc.
Grenada (Die Plant) Facility
API Separator ("Right-hand" tank, if you
are facing east.)
12/19/85 Inspection by Jim Hardage



Koppers Co. Inc.
Grenada (Die Plant) Facility
API Separator ("Left-hand" tank, if you
are facing east.)
12/19/85 Inspection by Jim Hardage



Koppers Co. Inc.
Grenada (Pie Plant) Facility
Drums of hazardous waste to be used as boiler fuel.
Drums are "staged" on a concrete pad adjacent to the boiler.
12/19/85 Inspection by Jim Hardage



Koppers Co. Inc.

Grenada (Tie Plant) Facility

Picture shows solids generated from the recovery
of API separator sludge by the TRACKER process.

12/19/85 Inspection by Jim Hurdage

KOPPERS

CERTIFIED MAIL

May 24, 1985

Mr. James Hardage
Hazardous Waste Section
Mississippi Department of
Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

RE: Your letter of May 8, 1985
Concerning Inspection of
April 16, 1985 at Grenada, MS

Dear Mr. Hardage:

This letter is in reply to your request regarding actions to be taken at the Grenada Plant. First let me begin by saying that I believe some of your comments would have been answered at the site had the Plant Manager been present and not the victim of a severe auto accident a few days before the inspection.

Concerning your comments:

1. Analysis of surface impoundment sludge, spray field soil and spray field water will be placed in the operating record. This data was in the Plant Managers office at the time of your inspection.
2. The most current closure plan and cost estimates were present at the facility.
3. Koppers has amended its March 30, 1985 submission of the Financial Assurance Document and it is presently on route to you.

Concerning Deficiencies

1. The Part A is presently being amended and will be submitted on June 10, 1985. It will include the addition of K-001 and a relocation of the container storage area.

With respect to the storage area, we are proposing to use the concrete area near the boiler feeder area with the addition of movable fences to secure the area during off-hours. Signs will be posted on this new fence.

2. Warning signs are present at the current storage area listed in the Part A. That area is in the concrete diked area used to hold the large creosote storage tanks. We were not aware that staging areas for recycling use of the waste as fuel required signs. Signs are being posted at this time.

Mr. James Hardage
May 24, 1985
Page 2.

3. Work has already been ordered to improve the surface seals at monitoring wells R-1, 4, 5, 6, 7, 8 and 9. When this work is completed, I will send you a confirming statement including dates and names of workers. The plant manager had been advised of this condition when discovered by a company inspection prior to your visit. We will insure that the work is completed.

With respect to the current staging area, we would rather amend the Part A to move storage to that area than debate the legitimate use of the area as a staging area prior to use in the boiler. I believe this move will address your concerns and reduce our need to manage two areas.

Please telephone me if you find any of the above comments inadequate or not addressing your concerns. Your assistance will be greatly appreciated during this time period before a new plant manager can be found to take Ray Bartlow's place.

Sincerely yours,

Charles P. Brush/mas

Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs

CPB/mas

DIVISION OF SOLID WASTE

REVIEWED BY

5/31/85 JH.

DATE

COMMENTS

STATUS OF COMPLIANCE WITH RCRA GROUNDWATER MONITORING REQUIREMENTS

FACILITY NAME: Koppers Company, Inc. EPA ID NO. MSD-007-027-543

LOCATION: Tie Plant, MS

CATEGORY: 2 INTERIM STATUS: YES PART B STATUS: Responded to 3rd NOD 1/31/85

GROUNDWATER CONTAMINATION: UNKNOWN App. VIII conducted 4/85, results due 6/85.

CURRENT STATUS:

1. Compliance- Non compliance but under order: Facility is carrying out all provisions of BPC order #746-84, except submittal of a complete Part B application by 9/12/84 (4th NOD will be sent). Groundwater assessment submitted late, delaying Part B processing (assessment will be completed 6/85).
2. Technical Deficiencies- Final determination of groundwater contamination unknown until 6/85 when App. VIII results are due.

ACTION/RECOMMENDATIONS:

1. Compliance/Enforcement- Track State enforcement. Recommend civil penalty with 4th NOD.
2. Technical/Information needs- App. VIII analyses plus results of assessment.
3. Corrective Action- To be determined upon receipt of App.VIII scan results.

BACKGROUND INFORMATION:

1. Facility Description/Waste Types- Wood preserver: K001 sludge creosote and pentachlorophenol.
2. Unit Type(s)- 1 surface impoundment
1 spray irrigation field (regulatory status to be determined)
3. Compliance History- Failed to monitor for all 265 parameters until 7/84, failed to install monitoring system capable of detecting contamination until 9/84, failed to determine facility impact by conducting t-test, failed to submit timely assessment plan, submitted Part B late. State fined facility \$4,000 for these violations under order #746-84.
4. Closure/Post Closure- Closure under 265. Post-closure will be under 270.
5. CERCLA Status- none known, not on NPL.

MATERIALS REVIEWED: Part A X Part B EPA Compliance Files X

State Files X Other

Prepared By: Joe Hughart

Date: 5/20/85

FILE COPY

May 8, 1985

Mr. Jackie Clayton
Assistant Plant Manager
Koppers Company, Inc.
P.O. Box 160
Tie Plant, Mississippi 38960

Dear Mr. Clayton:

Re: Inspection on April 16, 1985

Regarding the interim status inspection and groundwater inspection at the Koppers Grenada Plant on April 16, 1985, I have the following comments:

1. Analyses of lagoon bottoms, spray field soil, and water to spray field should be included in your operating record.
2. The most current closure plan and cost estimate should be included in the operating record, including any revisions that the Bureau may require.
3. Current estimate of closure and related financial information is being reviewed and will be addressed in a separate letter.

Deficiencies that need to be corrected are as follows:

1. Drums of waste are apparently being stored in unauthorized areas. This constitutes a major deficiency.
2. Warning signs should be posted around drum storage areas.
3. The surface seals on monitoring wells R-1, 4, 5, 6, 7, 8, and 9 are inadequate.

Regarding the first item, Bob Lee and John Herrmann, who have inspected the facility on previous occasions, have told me that the designated drum storage area is inside the dike that surrounds the tank farm. Therefore, Koppers should either (1) move the drums back into the designated area, (2) amend their Part A, or (3) otherwise demonstrate that the current drum staging areas are legitimate.

Regarding the second item, warning signs should be posted around the drums that are stored on the concrete pad next to the boiler house, assuming that Koppers can demonstrate that this is a legitimate staging area.

Mr. Jackie Clayton

Page 2

Regarding the third item; currently the surface seals will not prevent contamination from traveling down the annular space of the well and possibly contaminating groundwater. The surface seal should be a bentonite/cement grout mix to reduce the potential for shrinkage and cracking of the seal. The surface seal must also be sloped from the well out to the edge of the seal to keep possibly contaminated water from flowing onto the seal. Please refer to the enclosed groundwater monitoring design. Also, the spray system in the impoundment must be cut-off while sampling to avoid possible sample contamination.

You should notify this agency in writing by June 9, 1985, regarding actions you have taken to correct these problems, or else face possible enforcement action.

If you have any questions concerning this matter, please contact me.

Sincerely,

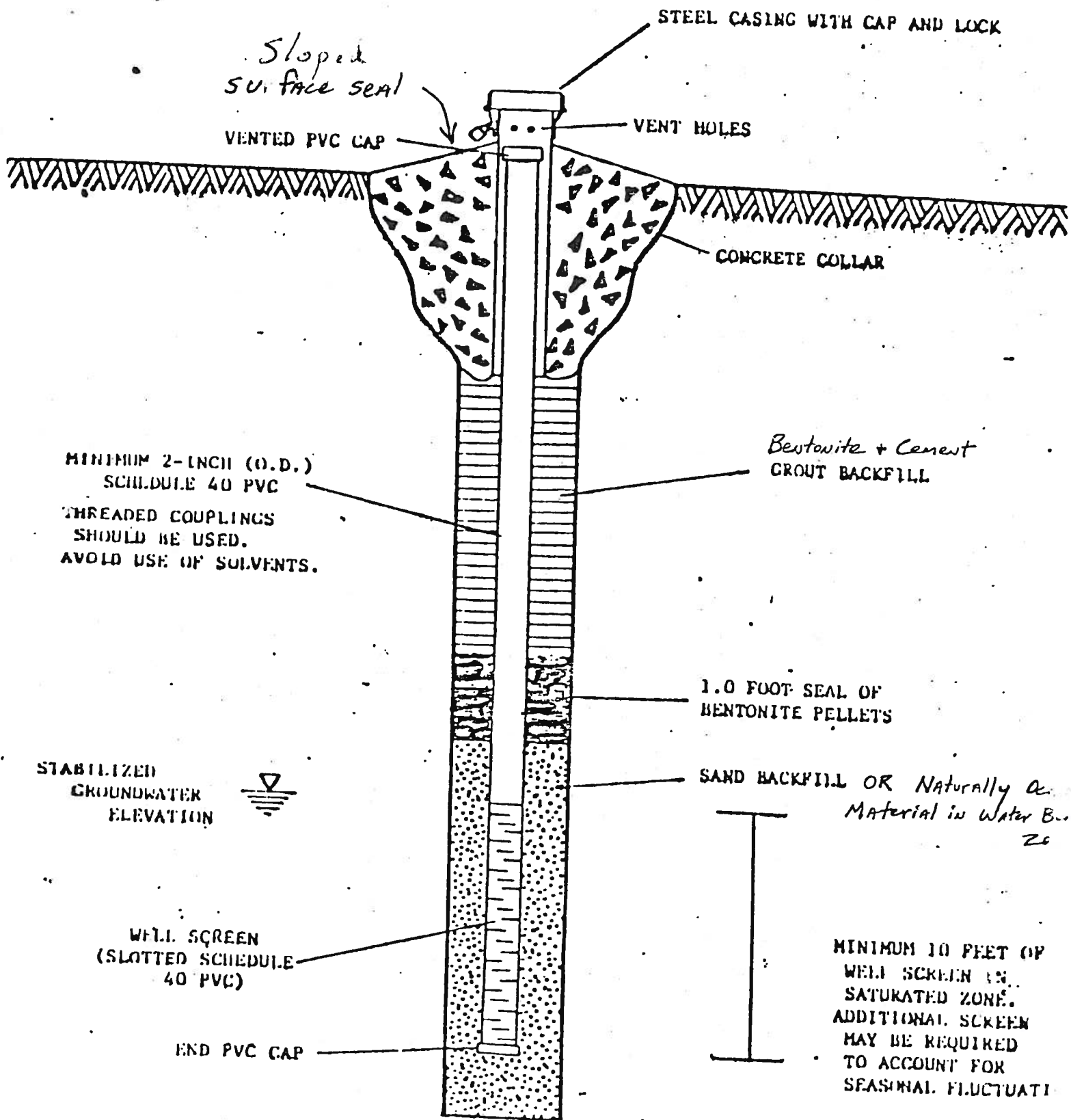
Jim Hardage
Hazardous Waste Section

JH:ps

Enclosure

cc: Mr. Charles Brush

TYPICAL GROUNDWATER MONITORING WELL INSTALLATION
SOLID & HAZARDOUS WASTE MANAGEMENT



May 7, 1985

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Charles Brush
Koppers Company, Inc.
Environmental Resources Department
Pittsburgh, Pennsylvania 15219

Dear Mr. Brush:

Re: Review of Part D Storage Permit
Application for Koppers Company, Inc.
Grenada Facility, MSD007027543

On January 31, 1985, you submitted a revised application for a hazardous waste permit for your drum storage facility located in T.H. Plant (Grenada), Mississippi. The Bureau has conducted a review of the information included therein. The Bureau has determined that the application is not complete. Attached to this letter is a list of deficiencies.

You are hereby notified that an acceptable application must be submitted within 30 days of receipt of this letter. Failure to meet this compliance deadline will result in our recommendation to the Mississippi Commission on Natural Resources that the eight thousand dollars currently held in abeyance, as described in Order No. 7/2-84, be imposed.

If you have any questions in regard to the comments, or our position on this matter, please contact Jim Hardage or me at (601) 961-1171.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:JM:hdb
Attachment

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers

Address

The Plant (Grenada)

Contact

Charles Bush - Pittsburgh Office

Phone

I talked with Mr. Bush today regarding the financial report Koppers recently submitted. The closure cost estimate (for impoundment and drum storage) was based on on-site disposal of creosote and KOOI waste via burning in the plant's boiler. They are currently revising this report to reflect off-site disposal at a commercial haz. waste facility. They will send us a copy of the revised report shortly.

Mr. Bush also updated me regarding the status of groundwater monitoring. All field work and analytical work pertaining to the gw assessment plan implemented by Koppers under Order No. 705-84 has been completed. Mr. Bush will forward us a copy of the analytical data (He just received the last set of data.). In addition, Koppers will submit a gw assessment report by mid-year, based on data developed to date.

Note: Bureau has data from the first round of bimonthly sampling (see report in gw file.).

Signature

Jim Hardage

Date

May 2 '85

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Address

Contact

Phone

Regarding Appendix VIII sampling, Mr. Brush indicated that the samples had been collected by their consultant, ESE, on or before April 8. This data is supposed to be submitted in June 1985 to the Bureau.

Signature

Jim Hardage

Date

May 2 1985

KOPPERS

April 30, 1985

Mr. James Hardage
Hazardous Waste Section
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

RE: Appendix VIII Groundwater Testing
at Koppers' Grenada, MS Facility

Dear Mr. Hardage:

As you are well aware, Koppers expressed considerable concern when we began the sampling and analysis for Appendix VIII constituents. Our reasons for concern are best set forth in the enclosed report - Inter- and Intralaboratory Assessment of SW-846 Methods Manual for Analysis of Appendix VIII Compounds in Groundwater - Chemical Manufacturers Association, March 1, 1985.

You will note in the report that an exhaustive review of the EPA's methods to determine how well they can identify and report the true concentration of every organic contaminant was undertaken by the chemical industry. A review of the results from the assessment of bias indicated that the three laboratories used in the study were not able to meet the EPA criteria to demonstrate one's ability to generate "acceptable accuracy and precision" for a large percentage of compounds included in the study. Further, it should be noted that the samples studied contained only pure compounds in a simple groundwater matrix. The report also highlights the problem of false positive and negative observations which could be of major significance when studying a real site.

Koppers hopes your department will be mindful of the validity of SW-846 testing when you review our Appendix VIII data when reported by ESE. Koppers retained ESE as an experienced laboratory to take our samples and conduct the analytical work in an effort to provide you with best available accuracy and precision. Please view both yours and our efforts in this work as developmental in advancing our knowledge of groundwater contamination and analytical methods.

DIVISION OF SOLID WASTE

REVIEWED BY JH

DATE 5/23/85

COMMENTS _____

Mr. James Hardage
April 30, 1985
Page 2.

I will keep you informed of any new concerns or questions which develop during the analysis period.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Charles Brush". The signature is fluid and cursive, with the first name "Charles" and last name "Brush" clearly distinguishable.

Charles P. Brush, P.E.
Program Manager
Hazardous Waste Affairs

CPB/mas

Enclosure - CMA Report

cc: Mark Urbassik
Robert Hepner
John Smith

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers

Address

Contact

Charles Brush

Phone

Koppers will resubmit more financial information.

Koppers is not burning API sludge. Very little penta or creosote waste is generated on-site so no BTU tests are done.

Koppers intended to include API tanks in Jan. 31 submittal.

BTU test results Koppers submitted last year was for (1) five samples of "off-site" waste taken on-site and (2) two samples of waste being sent to plant.

Bureau will send Koppers an NOD letter addressing outstanding deficiencies. Deficiencies in waste analysis plan and container management (Section D) was discussed with Mr. Brush during meeting in Jackson on March 22, 1985.

Signature

Jim Harbage

Date

4/18/85

RECORD OF TELEPHONE CONVERSATION

Name of firm or party

Address

Contact

Phone

Analytical data and assessment report is due by mid 1985. This pertains to the accelerated gw assessment plan Koppers implemented last fall.

GW section of Part B should be revised and resubmitted (Post closure may be required.). Should include ACL's or corrective action plan.

Koppers must submit a land treatment section (Part B) for spray field or submit a delisting petition.

API separator tanks - was Part A revised?

Bureau will address closure cost and financial info under separate letter. Closure cost may not be adequate for interim status or Part B.

Signature

Date



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171



MEMORANDUM

TO: SAM
FROM: Gory
SUBJECT: Kopper sprayfield demonstration (phone conversation)
DATE: 4-13

Ron Moraski of Koppers Environmental called to give verbal notice the sprayfield demonstration for Koppers Facility will be late. He is following up immediately with a Federal expressed written notification with an explanation of why it is late and a request for an extension on the submittal date.

March 26, 1985

Mr. Charles Brush, P. E.
Koppers Company, Inc.
1201 Koppers Building
7th Avenue and Grant Street
Pittsburg, Pennsylvania 15219

Dear Mr. Brush:

Re: Appendix VIII Groundwater Testing
at Koppers Grenada Facility

Based on our telephone conversation on March 25, 1985, we agreed on the following items:

1. "Appendix VIII" testing applies to the "new" or "point of compliance" wells (R6 through R9); and
2. Any Appendix VIII constituents that were tested under Koppers accelerated groundwater assessment program do not have to be retested, provided the previous testing is consistent with the "Groundwater Testing Appendix VIII" guidance that we forwarded to you on March 6, 1985, especially in regard to quality assurance/quality control measures.

It is my understanding that Koppers will sample the above-mentioned wells the first week of April.

If you, or the laboratory that will be doing the analyses for you, have any questions regarding this matter, please contact Chuck Estes or me at (601) 961-5171.

Sincerely,

Jim Hardage
Hazardous Waste Section

JH:els

WORD OF TELEPHONE CONVERSATION

Name of firm or party

Koppers

Address

Contact

Charles Brush

Phone

227-2877

412/227-2000

Chuck Estes and I discussed Appendix VIII
groundwater testing with Mr. Brush.

Also Mr. Brush discussed ^{management strategies of} separator sludge
from the oil/water separator which is 25% oil
and 75% water.

Koppers would like to burn the oil fraction.
Koppers is considering three management strategies:

1. evaporate water (slotted lids on drums; heat drums)
2. centrifuge sludge
3. add sawdust

Would option one be considered thermal treatment?

Would " " require a permit?

Would option three be considered treatment?

We will discuss this in more detail later.

Signature

Jim Harbage

Date

Mar. 25, 1985



FEDERAL EXPRESS

March 14, 1985

Mr. Jack M. McMillan
Mississippi Department of Natural Resources
Bureau of Pollution Control
2380 Highway 80 West
Jackson, Mississippi 39202

RE: Information Regarding Potential Releases
from Solid Waste Management Units

Dear Mr. McMillan:

In accordance with your request for information concerning prior release, I have prepared the enclosed reply. The reply is not complete with all of the exhibits necessary for location and sizes. However, these exhibits are being worked on and will be delivered to your office in the very near future.

Sincerely yours,

Charles P. Brush, P.E.
Program Manager for
Hazardous Waste Affairs

CPB/mas

Enclosure

3. For the units noted in Number 1 above and also those hazardous waste units in your Part B application, please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or still be occurring.

Please provide the following information

- a. Date of release
- b. Type of waste released
- c. Quantity or volume of waste released
- d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc)

See Attached Sheets.

4. In regard to the prior releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

See data already submitted for sprayfield soil and current reports being submitted for the existing surface impoundments.

Signature and Certification ***

As with reports in RCRA Permit Applications, submittal of this information must contain the following certification and signature by a principal executive officer of at least the level of Vice President or by a duly authorized representative of that person:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining 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.

Charles P. Brush

Signature

Charles P. Brush, P.E.
Program Manager for Hazardous Waste Affairs
Name and Title (Typed)

QUESTION 3 **

Unit 2 - Surface Impoundments

No known releases during the operation of the impoundments. Traces of creosote have been seen on the surface of the ground after clean-up and closure by backfilling. These traces of creosote have not been quantified.

Unit 3 - Land Farm

Landfarming of wood treating process wastes was conducted on the property prior to 1980. No known releases have been recorded for this operation. Ash from the present boiler operation is currently being placed on this area. This ash has been evaluated and does not appear to be a hazardous waste.

Unit 4 - Waste Pile

Two piles of scrape lumber are presently on the property. This wood is not considered to be a hazardous waste.

Unit 10 - Wastewater Treatment Units

Koppers presently uses a spray irrigation field to dispose of wastewaters from the treating operations. The quality of water this field receives and the amount of constituents in the soils of the field were reported to the Mississippi DNR in the Fall of 1984. Biodegradation processes appear to be treating the wastewater applied to the field and wastes are not accumulating.

Unit 12 - Waste Recycling Operations

Koppers presently operates a wood fired cogeneration boiler at this facility. This unit is permitted to use specific wood treating wastes for fuel additives. No spills, or emissions other than those permitted by regulation or law have been recorded at this unit.

The present surface impoundments are being evaluated for groundwater contamination at this time. Environmental consultants are presently engaged by Koppers to assist in evaluating data obtained to date and collecting new data. The Mississippi DNR is overseeing these efforts by Koppers and is receiving copies of all data and reports as generated.

**** Koppers is presently preparing a site plan to identify locations, dimensions, and estimates of capacity were applicable. This information will be submitted in the near future.**

***** This form was received without specific guidance or instructions from the Mississippi Department of Natural Resources. I have therefore followed to the best of my ability the EPA Draft Statutory Interpretation of 1984 RCRA Amendments on Corrective Action for Releases from Hazardous Waste Facilities - from Jack W. McGraw, Acting Assistant Administrator, dated January 30, 1985. It is made part of this response by reference.**

INFORMATION REGARDING POTENTIAL RELEASES FROM
SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: Koppers Company, Inc.
EPA I. D. NUMBER: MSD-007027543
LOCATION City Tie Plant
State Mississippi

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTES UNITS CURRENTLY SHOWN IN YOUR PART B APPLICATION

	<u>YES</u>	<u>NO</u>
1. ° Landfill	<u> </u>	<u>X</u>
2. ° Surface Impoundment	<u>X</u>	<u> </u>
3. ° Land Farm	<u>X</u>	<u> </u>
4. ° Waste Pile	<u>X</u>	<u> </u>
5. ° Incinerator	<u> </u>	<u>X</u>
6. ° Storage Tank (Above Ground)	<u> </u>	<u>X</u>
7. ° Storage Tank (Underground)	<u> </u>	<u>X</u>
8. ° Container Storage Area	<u> </u>	<u>X</u>
9. ° Injection Wells	<u> </u>	<u>X</u>
10. ° Wastewater Treatment Units	<u>X</u>	<u> </u>
11. ° Transfer Stations	<u> </u>	<u>X</u>
12. ° Waste Recycling Operations	<u>X</u>	<u> </u>

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volumes of wastes disposed of and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, location at facility, provide a site plan if available.

See Attached Sheets.

NOTE: Hazardous waste are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

Mississippi - Information Regarding Potential Releases
From Solid Waste Management Units
Koppers Company, Inc.
Tie Plant, Mississippi

QUESTION 2 **

Unit 2 - Surface Impoundment

Surface storage impoundments for managing wood treating wastewaters were cleaned-up and closed prior to 1980. Wastes would have been considered K-001 today.

Unit 3 - Land Farm

Wood treating preservatives and process wastes were biologically land farmed prior to 1980.

Unit 4 - Waste Pile

Two waste piles of wood exist today on the property and are not considered hazardous.

Unit 10 - Wastewater Treatment Units

A spray irrigation field is presently operated to treat industrial wastewaters from this plant. Wastes are treated on this site as opposed to disposal.

Unit 12 - Waste Recycling Operations

The present power boiler for the plant uses wood treating waste as supplemental fuel for beneficial recycling. This boiler is regulated on operations and emission by a Mississippi Air Emissions Permit.

March 6, 1985

FILE COPY

Mr. Ray Bartlow
Koppers Company, Inc.
P. O. Box 160
Tie Plant, Mississippi 38960

Dear Mr. Bartlow:

Attached is the Bureau's recommended guidance for analysis of Appendix VIII constituents, as required by MHWMR 270.14(c). In order for your permit application to be considered complete you are required to submit the complete scan. We recognize that individual facilities may of necessity need to improvise or in some cases substitute certain site-specific constituents into the list. We intend to evaluate the good-faith efforts taken toward providing a complete Appendix VIII scan. You are reminded that failure to supply a complete application is grounds for denial of the permit and/or termination of interim status.

The samples must be taken by April 8, 1985 and the results submitted to our office by June 7, 1985.

Prior to conducting sampling and analysis, we would welcome the opportunity of discussing these requirements with you, and to discuss any site-specific or waste specific variances (e.g., exotic compounds) from the Appendix VIII list. If you have any questions, please contact the designated project officer or me at 601-961-5062.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:JH:hdb
Attachment

March 6, 1985

Mr. James H. Scarbrough, Chief
Residual Management Branch
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Dear Mr. Scarbrough:

Transmitted herewith for your review is the following:

- (1) Ground-Water Monitoring and Protection Section of the RCRA Part B Application for the Koppers Company, Inc., Hazardous Waste Management Facility, Grenada, EPA Identification No. MSD007027543;
- (2) statement regarding impoundment dike stability;
- (3) cover letter from Koppers Company, Inc., dated February 27, 1985, regarding the above-mentioned transmittals.

These items update the Koppers Part B Application that was transmitted to you on February 8, 1985 (See attached letter.).

This documentation is being reviewed by our office. We wish to receive your comments by March 25, 1985.

If additional information is needed or our assistance, please contact John Herrmann of my staff at (601) 961-5171.

Sincerely,

Jack McMillan, Director
Hazardous Waste Section

JH:cm
Enclosure

March 6, 1985

Mr. Charles P. Brush, P. E.
Program Manager, Hazardous Waste Affairs
Koppers Company, Inc.
436 Seventh Avenue
Pittsburg, Pennsylvania 15219

FILE COPY

Dear Mr. Brush:

Receipt is hereby acknowledged of the following:

- (1) Ground-Water Monitoring and Protection Section of the RCRA Part B Application for the Koppers Grenada facility;
- (2) statement regarding impoundment dike stability.

The above material is currently being reviewed. We will contact you as soon as possible regarding our findings.

Sincerely,

Jim Hardage
Hazardous Waste Section

JH:cm

RECEIVED

MAR - 1 1985

DEPT. OF NATURAL RESOURCE
BUREAU OF POLLUTION CONTROL

Koppers Company, Incorporated
1201 Koppers Building
7th Avenue and Grant Street
Pittsburg, Pennsylvania 15219

February 27, 1985

Mississippi Department of Natural Resources
Bureau of Pollution Control
2380 Highway 80 West
Jackson, Mississippi 39204

Attention: Mr. Jack M. McMillan, Director
Division of Solid Waste Management

Subject: RCRA Part B Application
Ground-Water Monitoring and Protection Section
Grenada, Mississippi

Gentlemen:

In accordance with our agreement in August, 1984, we are transmitting four copies of the Ground-Water Monitoring and Protection section of the RCRA Part B Application for our Grenada facility. This section has been designated as Volume II of the application and replaces Section E of the previously submitted application. The existing Section E should be removed from the binder and discarded.

Also included are four copies of a statement regarding impoundment dike stability which should be inserted into Section D - Process Information as pages 13A, 13B, and 13C of the previously submitted application, revision no. 1, now designated as Volume 1.

We appreciate your consideration and cooperation in the submission of this application and look forward to the completion of the permitting process. I will be in touch with you in the next few days to discuss the on-going assessment plan.

Sincerely yours,

KOPPERS COMPANY, INC.

Charles P. Brush
Charles P. Brush, P.E.

hc

CPB:lb
Enclosure

RECEIVED
FEB 27 11 20 AM



LAW ENGINEERING TESTING COMPANY
geotechnical, environmental & construction materials consultants
501 MINUET LANE
P.O. BOX 11297 • CHARLOTTE, NORTH CAROLINA 28220
(704) 523-2022

January 30, 1985

Mississippi Department of Natural Resources
Bureau of Pollution Control
2380 Highway 80 West
Jackson, Mississippi 39204

Attention: Mr. John Herrmann
Hazardous Waste Section

Subject: RCRA Part B Application
Hazardous Waste Storage Building
Koppers Plant
Grenada (Tie Plant), Mississippi
LETCo. Job No. CH 5080

Gentlemen:

The attached drawing and erection manual (4 copies of each) are part of Koppers' RCRA Part B Application for the proposed Hazardous Waste Storage Building at the Koppers Plant near Grenada, Mississippi. Please insert the drawing and manual into the packets provided in the submittal received from Koppers.

Your assistance in this matter is appreciated. If you have any questions regarding this submittal or other aspects of this project, please contact us.

Very truly yours,

LAW ENGINEERING TESTING COMPANY


Jimmy N. Smith, P. E.
Senior Geotechnical Engineer

Attachments

JNS:tmc

cc: Charles P. Brush



MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171



MEMORANDUM

CEP

- RETURN RECEIPT REQUESTED

TO:

Treatment, Storage and Disposal Facilities

FR

Waste Amendments of 1984

Amendments of 1984 (HSWA) were signed
in 1984. These amendments will
strengthen the waste regulatory program, both imm

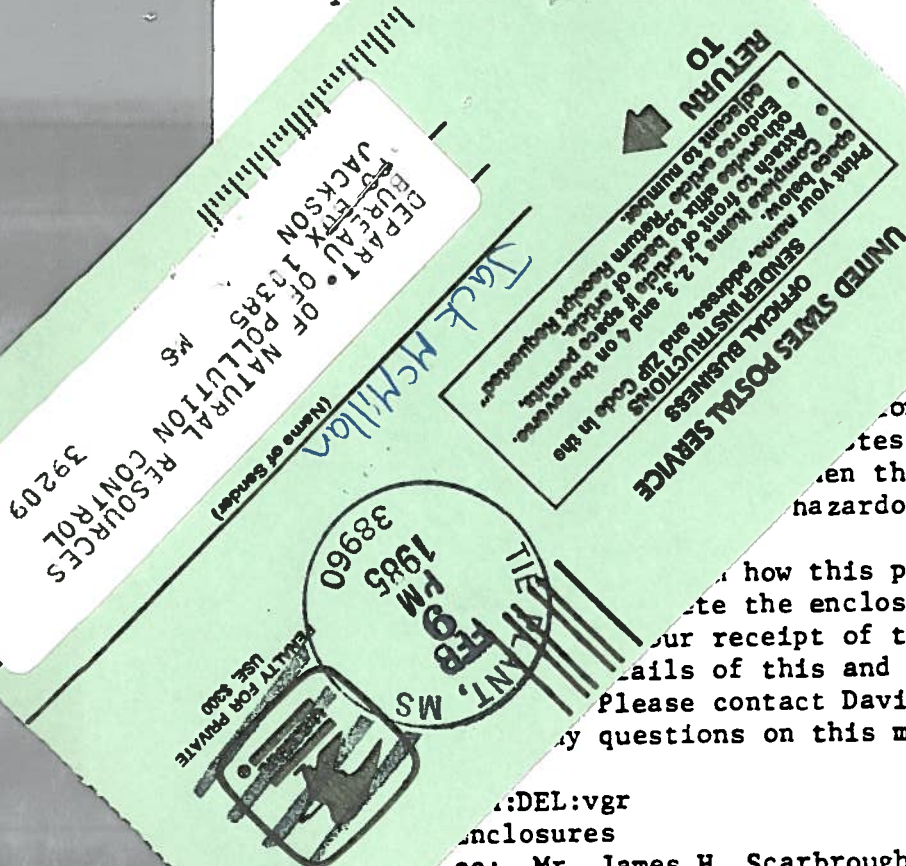
One provision to be addressed is a requirement that RCR
facilities must clean up contamination caused by p
leakage of hazardous or constituents from solid waste manag
units when the waste was placed in the unit. This r
applies to both hazardous and nonhazardous waste management un

To show how this provision may apply to your facility, we
enclose the enclosed form and return it to our office wit
your receipt of this letter. Also enclosed is a summary
of the details of this and other provisions of the HWSA for your in
formation. Please contact David Lee or John Herrmann of my staff, if
you have any questions on this matter.

DEL:vgr

enclosures

cc: Mr. James H. Scarbrough



new schedule for its completion.

I trust that we will be able to perform in such a manner that the additional \$8,000.00 fine will not have to be levied. I appreciate very much your willingness to transact this business on the telephone. We want to thank you for your cooperation and constructive approach to this problem.

Very truly yours,



Templeton Smith

TS:km

cc: Charles Brush

KOPPERS

Charles P. Brush
Manager
Environmental Planning
and Regulatory Analysis

January 17, 1985

Mississippi Department of
Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

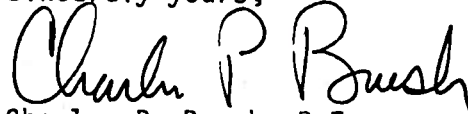
ATTENTION: Mr. John Herrmann

RE: Part B Application for Hazardous
Waste Storage Facility

Dear Mr. Herrmann:

Enclosed are four copies of the Part B Application for our Hazardous Waste Storage Facility. The building is proposed to be constructed as soon as this permit is issued. If, after a completeness review you determine a deficiency, please advise me as soon as possible so that we might address the issue.

Sincerely yours,



Charles P. Brush, P.E.

CPB/mas

Enclosures - 4 copies

cc: Jim Smith - w/enclosures
Law Engineering & Testing Co.

1/17/85

Meeting with Koppers
Charles Bruch - Koppers
Jim Smith - consultant

Jack McMillan,
John Hennemann, +
Jim Hodge - BPC

development of site topography map has delayed Part B assessment

bi-monthly sampling schedule is in effect

BPC will get August sampling results this wk.
There have been lab delays.

Oct + Dec samples have been collected, data
not yet available.

Feb. sampling

accelerated assessment

~~accelerated~~ detection monitoring is now in effect - Feb. sampling will
complete, accelerated
~~is last~~ sampling program.

Assessment data & conclusions will be presented to BPC
then will go back to regular ^(compliance) monitoring or another phase
of assessment monitoring.

^{proposed} to ~~will~~ amend Part A to add a storage facility.
Boiler will not be included in Part B.
Assessment report -

Using spray field - large water have been in the
state plans to regulate spray field.

1. peak (activated sludge) treatment
leach waste

RCRA impoundment → CWA (activated sludge)
wastewater aeration impoundment

Jan. 4 reg. - exemption for CWA impoundment

aeration → earth filter → surface
impoundment with lined leachate collection system discharge

complete Part B

clean -

- (1) close facility in lieu of Part B ^{operate under interim status with approved closure plan} → close within 180 days
- (2) issue Part B w/ schedule for closure or retrofit

4 yr. time frame for both options Nov 8 1988

By mid yro - water quality data & assessment report

"distant wells" data - clean

"near wells" data - if some contamination, what? either post-closure ^{compliance} or immediate action (corrective action)

can establish aCL's

Part B - date for submittal

~~Nov 8, 1988~~

State contractor will evaluate "storage part" of Part B facility

John Heumann said don't amend Part A
instead submit a Part B for new storage
facility.

Need to submit structural specs and
take existing ~~existing~~ Part B info and
resubmit by Jan. 31.

EPA guidance by April.

Exposure assessment by August 1985

by Mar. 1 - revise and resubmit gen section
to meet "completeness" requirement. Will
still be lacking some data.