Tronox LLC, Columbus

General Information

ID	Branch	SIC	County	Basin	Start	End
1696	Chemical	2491	Lowndes	Tombigbee River	10/27/1992	

Address

Physical Address (Primary)	Mailing Address
2300 14th Avenue North Columbus, MS 39701	PO Box 268859 Oklahoma City, OK 731268859

Telecommunications

Type	Address or Phone
Work phone number	(405) 775-5129

Alternate / Historic AI Identifiers

Alt ID	Alt Name	Alt Type	Start Date	End Date
2808700020	Tronox LLC, Columbus	Air-AIRS AFS	10/12/2000	06/01/2002
168000020	Kerr McGee Chemical Corporation, Columbus	Air-Construction	06/12/1998	
168000020	Kerr McGee Chemical Corporation, Columbus	Air-Synthetic Minor Operating	06/06/1997	06/01/2002
168000020	Kerr McGee Chemical Corporation, Columbus	Air-Synthetic Minor Operating	06/12/1998	06/01/2002
MSR220010	Kerr McGee Chemical Corporation, Columbus	GP-Wood Treating	10/27/1992	07/13/1997
MSD990866329	Kerr McGee Chemical Corporation, Columbus	Hazardous Waste-EPA ID	10/12/2000	
MSD990866329	Kerr McGee Chemical Corporation, Columbus	Hazardous Waste-TSD	06/11/2001	04/12/2006
MSD990866329	Tronox LLC, Columbus	Hazardous Waste-TSD	04/13/2006	05/31/2011
1696	Kerr McGee Chemical Corporation	Historic Site Name	10/27/1992	04/10/2006
1696	Tronox, LLC	Official Site Name	04/10/2006	
MSP090021	Kerr McGee Chemical Corporation, Columbus	Water-Pretreatment	10/11/1994	10/10/1999
MSP090021	Kerr McGee Chemical Corporation, Columbus	Water-Pretreatment	08/23/2000	07/31/2005
MSP090021	Kerr McGee Chemical Corporation, Columbus	Water-Pretreatment	10/31/2005	04/12/2006
MSP090021	Tronox LLC, Columbus	Water-Pretreatment	04/13/2006	09/30/2010

Regulatory Programs

Program	SubProgram	Start Date	End Date
Air	NSPS Subpart Dc	09/12/1990	06/01/2002
Air	SM	06/06/1997	06/01/2002
Hazardous Waste	Large Quantity Generator	04/01/1997	
Hazardous Waste	TSD - Not Classified	06/11/2001	
Water	PT CIU	10/11/1994	09/01/2003
Water	PT CIU - Timber Products	10/11/1994	09/01/2003

	Processing (Subpart 429)		
Water	PT NCS	09/01/2003	
Water	PT SIU	10/11/1994	

Locational Data

Latitude	Longitude	Metadata	S / T / R	Map Links
33 ° 30 ' 38 .51 (033.510697)	88 ° 24 ' 34 .02 (088.409450)	**Point Desc:** PG - Plant entrance (General) Data collected by Louis Crawford on 7/11/00. PG - Plant Entrance (General) Data collected by Clift Jeter on 6/13/02. LAT 33deg 30min 36.6sec LON 88deg 24min 35.1sec **Method:** GPS Code (Psuedo Range) Differential **Datum:** NAD83 **Type:** MDEQ	Section: Township: Range:	SWIMS TerraServer Map It

10/13/2006 10:29:50 AM

Kerr McGee Chemical Corporation, Columbus

General Information

ID	Branch	SIC	County	Basin	Start	End
1696	Chemical	2491	Lowndes	Tombigbee River	10/27/1992	

Address

Physical Address (Primary)	Mailing Address
2300 14th Avenue North Columbus, MS 39701	PO Box 268859 Oklahoma City, OK 731268859

Telecommunications

Type	Address or Phone
Work phone number	(405) 775-5110

Alternate / Historic AI Identifiers

Alt ID	Alt Name	Alt Type	Start Date	End Date
08700020	Kerr McGee Chemical Corporation, Columbus	Air-AIRS AFS	10/12/2000	
168000020	Kerr McGee Chemical Corporation, Columbus	Air-Construction	06/12/1998	
168000020	Kerr McGee Chemical Corporation, Columbus	Air-Synthetic Minor Operating	06/06/1997	06/01/2002
168000020	Kerr McGee Chemical Corporation, Columbus	Air-Synthetic Minor Operating	06/12/1998	06/01/2002
MSR220010	Kerr McGee Chemical Corporation, Columbus	GP-Wood Treating	10/27/1992	07/13/1997
MSD990866329	Kerr McGee Chemical Corporation, Columbus	Hazardous Waste-EPA ID	10/12/2000	
MSD990866329	Kerr McGee Chemical Corporation, Columbus	Hazardous Waste-TSD	06/11/2001	05/31/2011
1696	Kerr McGee Chemical Corporation	Official Site Name	10/27/1992	
MSP090021	Kerr McGee Chemical Corporation, Columbus	Water-Pretreatment	10/11/1994	10/10/1999
MSP090021	Kerr McGee Chemical Corporation, Columbus	Water-Pretreatment	08/23/2000	07/31/2005
MSP090021	Kerr McGee Chemical Corporation, Columbus	Water-Pretreatment	10/31/2005	09/30/2010

Regulatory Programs

Program	SubProgram	Start Date	End Date

Air	NSPS Subpart Dc	09/12/1990	
Air	SM	06/06/1997	
Hazardous Waste	TSD - Not Classified	06/11/2001	
Water	PT CIU	10/11/1994	09/01/2003
Water	PT CIU - Timber Products Processing (Subpart 429)	10/11/1994	09/01/2003
Water	PT NCS	09/01/2003	
Water	PT SIU	10/11/1994	

Locational Data

Latitude	Longitude	Metadata	S / T / R	Map Links
33 ° 30 ' 38 .51 (033.510697)	88 ° 24 ' 34 .2 (088.409450)	**Point Desc:** PG - Plant entrance (General) Data collected by Louis Crawford on 7/11/00. PG - Plant Entrance (General) Data collected by Clift Jeter on 6/13/02. LAT 33deg 30min 36.6sec LON 88deg 24min 35.1sec **Method:** GPS Code (Psuedo Range) Differential **Datum:** NAD83 **Type:** MDEQ	Section: Township: Range:	SWIMS TerraServer Map It

Report Date: 12/16/2005 3:17:08 PM

INFORMATION REGARDING POTENTIAL RELEASES FROM SOLID WASTE MANAGEMENT UNITS

FACILITY NAME: Kerr-McGee Chemical Corporation, Columbus Facility

EPA I. D. NUMBER: MSD 990866329

LOCATION **City** Columbus

State Mississippi 39701

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

	YES	NO
° Landfill		
° Surface Impoundment		
° Land Farm		
° Waste Pile	X	
° Incinerator		
° Storage Tank (Above Ground)		
° Storage Tank (Underground)		
° Container Storage Area		
° Injection Wells		
° Wastewater Treatment Units	X	
° Transfer Stations		
° Waste Recycling Operations	X	

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 Attachment

NOTE: Hazardous waste are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

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)

No release of hazardous waste constituents has been confirmed at this facility.

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.

N/A

Signature and Certification

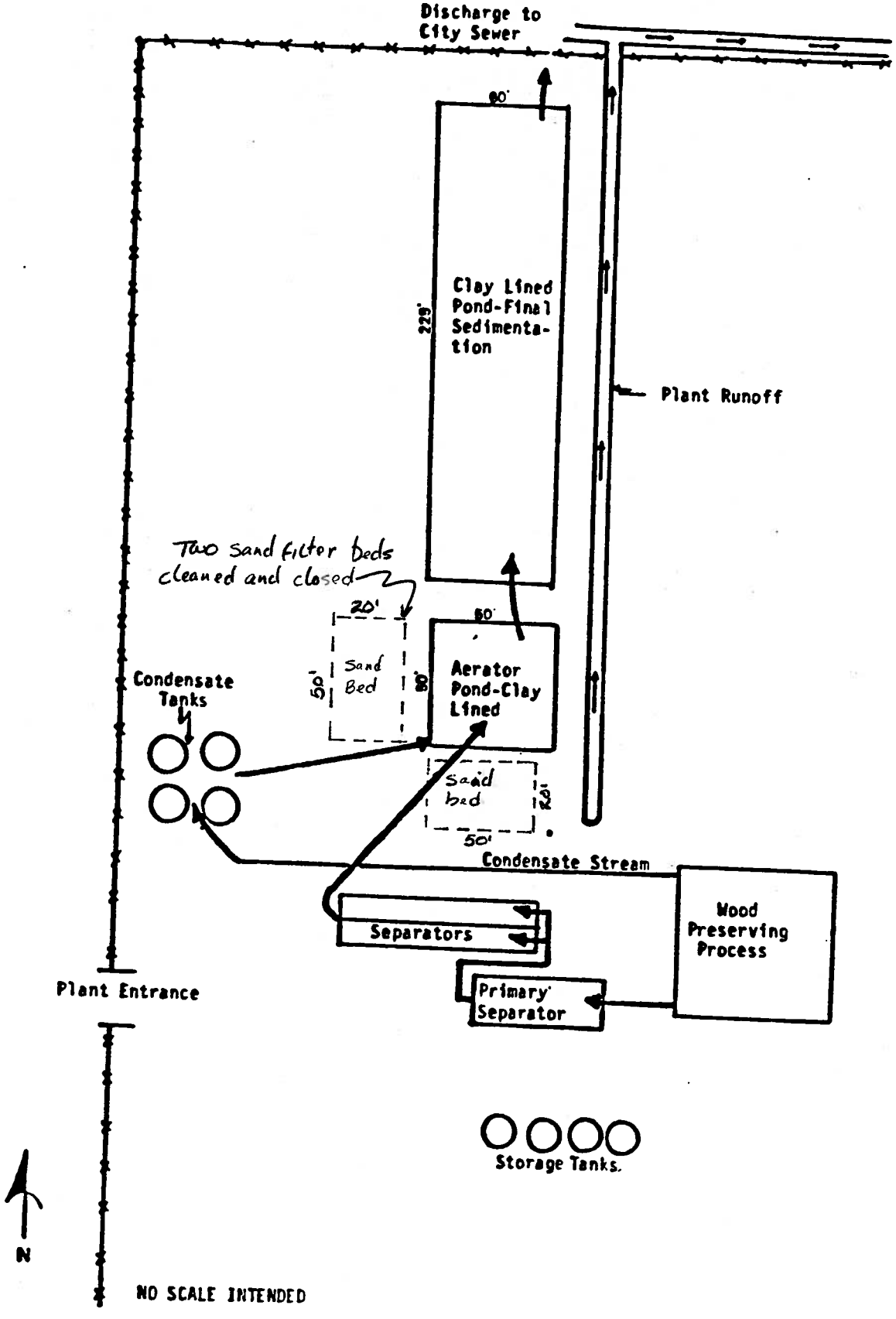
As with reports in RCRA Permit Applications, submittal of this information must contain the following certification and signature by a principal executive officer of at least the level of Vice President or by a duly authorized representative of that person:

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 possibiility of fine and imprisonment.

Signature

R. S. Hahn, Vice-Pres. & Gen. Mgr. of
Name and Title (Typed) Forest Products Div.

SCHEMATIC DIAGRAM
WASTEWATER MANAGEMENT SYSTEM
COLUMBUS FACILITY



Kerr-McGee Chemical Corp.
Columbus Facility

Paragraph No. 2 continued -

Waste piles - (2 sites)

1. Site No. 1 is a closed post/pole production site containing wood residue from peeling and debarking operations. This site is not a hazardous waste site. No data available on volume of waste remaining at site.

2. Site No. 2 is an active site containing metal bands, wire, sawdust and wood blocks. This site is not a hazardous waste site. No data available on volume of waste at site.

Waste Water Treatment Units (3 Units)

1. Two sand filter beds were discontinued in 1979 and closed in 1982. The filter beds were non-hazardous. No data available on volume of filtrate remaining after cleaning and closing.

2. An aerated lagoon and a settling lagoon are being used in the treatment of waste water from wood preserving processes, which generate hazardous waste K001 stored in both lagoons. It is estimated the two lagoons contain about 200 cubic yards. See site map from Closure Plan.

Waste Recycling Operations

Creosote fluids are recovered periodically from the aerated lagoon.

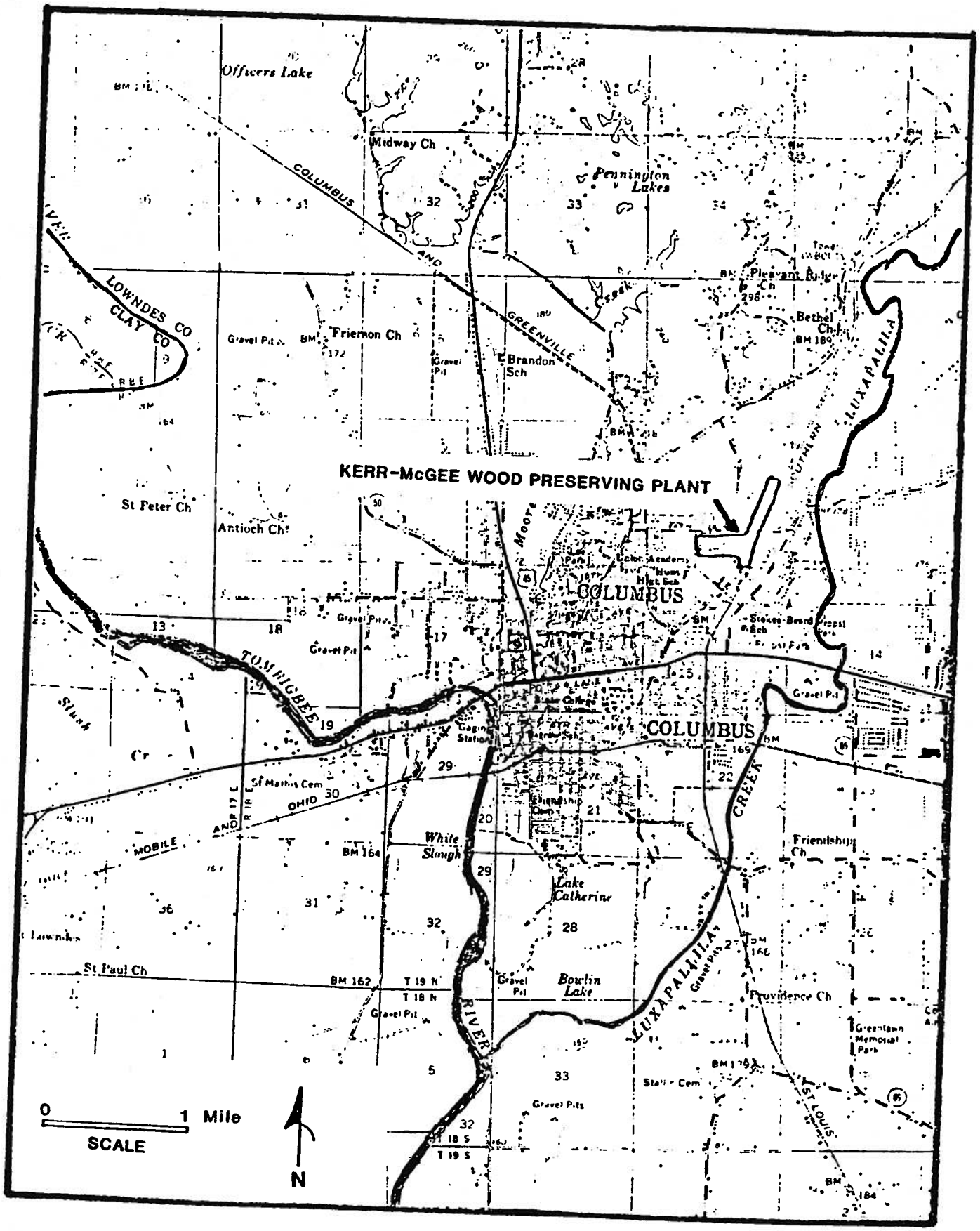


FIGURE 1: KERR-McGEE FACILITY LOCATION

Don

SW-28

Don McCann
2-13-85

BLUEPRINT

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

Facility Name: KERR-McGEE CORPORATION I.D. # MSD 990866329

Mailing Address (Facility and Corporate): 507 14th St. No.

Columbus, Ms. 39701

CORP: KERR-McGEE CENTER

OKlahoma City, OKlahoma 73125

Facility Contact: MR. LOWE GILBERT, SUPERINTENDENT

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 X Don't Know____

Comments_____

B. Is facility "seeking a permit?"

Yes____ No X

If no, is it permitted? Yes____ No X
Has it closed? Yes____ No X
Is closure plan approved? Yes X No____
Seeking "clean" closure? Yes X No____

Comments CP APPROVED 2-8-85

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

Yes____ No X Don't Know____

Comments_____

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

Yes_____ No X Don't Know_____

Comments_____

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

Yes_____ No X Don't Know_____

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

Yes_____ No_____

If no, when? _____

F. Other effects of amendments on facility:

NONE

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

A. Date of last RCRA inspection: 5-23-84

B. Violations found: 265.15; No Record of Inspection or Checklist.

265.56; Arrangements with local Authorities not documented in Contingency Plan.

C. Has facility corrected above violations?

Yes X No_____ Don't Know_____

Comments KM Ltr 6-27-84 Response to Violations.

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

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: SPLIT SAMPLES JUNE 1984

b) Compliance status of g.w. system (see attachment for information requested).

F. Has facility's Part B been called?

Yes X No____

If yes, describe efforts for obtaining complete Part B.

KM CHOSE TO CLOSE IN LIEU OF SUBMITTING PART B"

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

Public Notice 12-7-84 - 1-21-85

Permit Board Approved 1-22-85

BPC Approved 2-8-85

If closing, will post closure permit be required?

Yes____ No X Don't Know____

Comments_____

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

(a) closure assurance: Yes X No____

Comments_____

If yes, when does coverage expire? 9-30-85

(b) sudden insurance? Yes X No____

Comments_____

If yes, when does coverage expire? 7-1-85

(c) non-sudden insurance? Yes X No____ N/A____

Comments_____

If yes, when does coverage expire? 2-1-86

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_____ No X Don't Know_____

Comments_____

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?

NONE

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.]

NONE

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

Form Approved OMB No. 158-S80004

FORM 3 RCRA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

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

I. EPA I.D. NUMBER

S														T/A	C
F	M	S	D	9	9	0	8	6	6	3	2	9			
1	2											13	14		

FOR OFFICIAL USE ONLY

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

II. FIRST OR REVISED APPLICATION

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

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

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

[ ] 2. NEW FACILITY *(Complete item below.)* (71)

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

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

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

YR.	MO.	DAY
73 74	75 76	77 78

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

[ ] 1. FACILITY HAS INTERIM STATUS (72)

[ ] 2. FACILITY HAS A RCRA PERMIT (72)

III. PROCESSES — CODES AND DESIGN CAPACITIES

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

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

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

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

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

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

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

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

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
	16 - 18	19 - 27	28	29 - 32
X-1	S 0 2	600	G	
X-2	T 0 3	20	E	
1	S 0 2	60,000 inactive tank; reported for future use.	G	
2	S 0 4	15,000	G	
3				
4				

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

Continued from page 2.

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

Form Approved OMB No. 158-S80004

EPA I.D. NUMBER (enter from page 1)	FOR OFFICIAL USE ONLY
W M S D 9 9 0 8 6 6 3 2 9	W DUP 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	K001	26,400	P	S04 S02	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
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24					
25					
26					

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

Form Approved OMB No. 158-R0175

FORM 1 GENERAL

EPA

ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F

GENERAL INSTRUCTIONS

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

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

MSD990866329

V. FACILITY MAILING ADDRESS

KERR-MC GEE CHEMICAL CORP
507 14TH STREET NO
COLUMBUS, MS 39701

VI. FACILITY LOCATION

507 14TH STREET NO
COLUMBUS, MS 39701

II. POLLUTANT CHARACTERISTICS

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

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

III. NAME OF FACILITY

1 SKIP

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 LOWE GILBERT D SUPERINTENDENT	601 328 7551

V. FACILITY MAILING ADDRESS

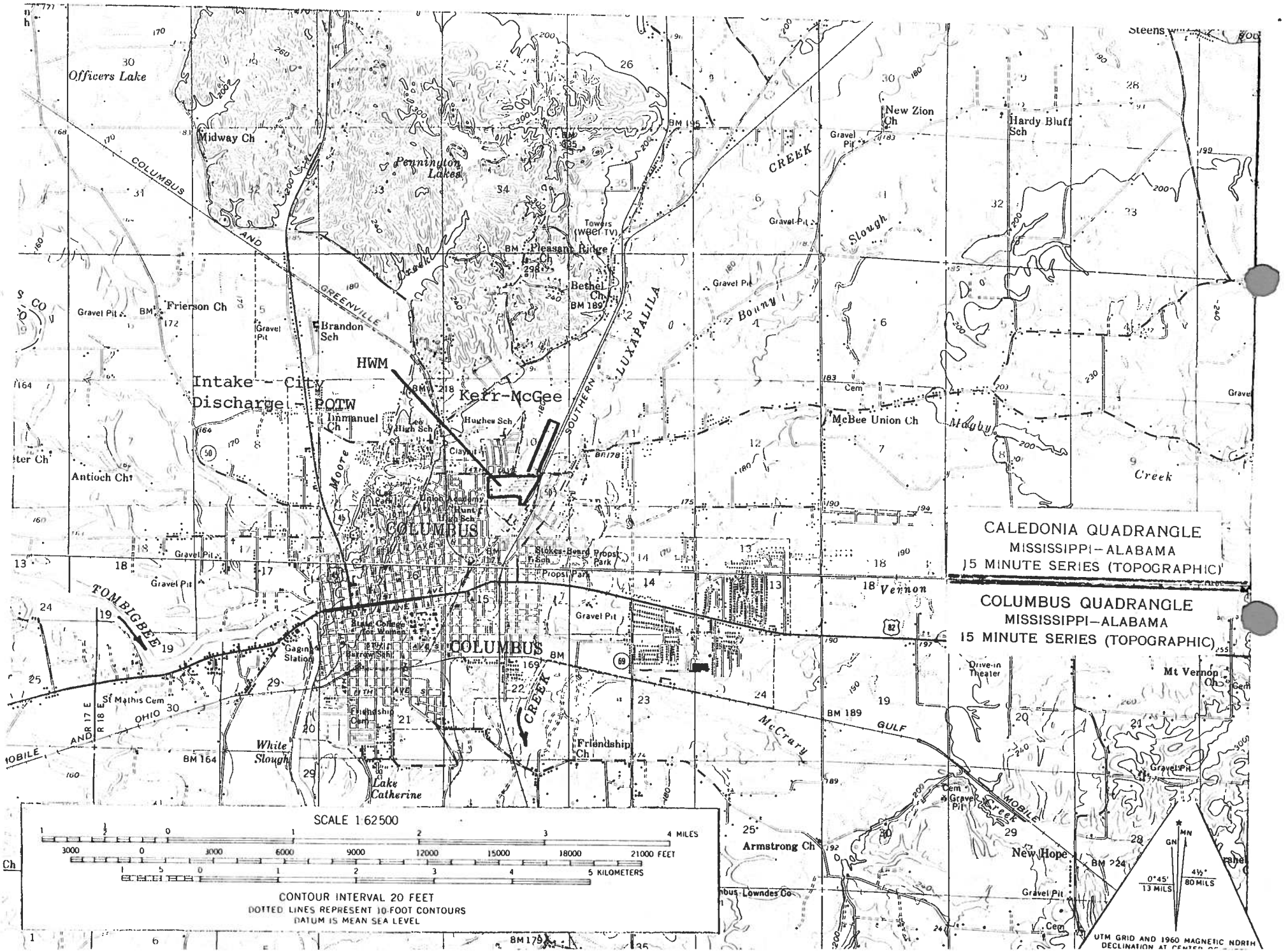
A. STREET OR P.O. BOX		
3		
B. CITY OR TOWN	**C. STATE**	**D. ZIP CODE**
4		

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER			
5			
B. COUNTY NAME			
LOWNDES			
C. CITY OR TOWN	**D. STATE**	**E. ZIP CODE**	**F. COUNTY CODE** *(if known)*
6			

JAN 27 '81

Latitude 33° 30'30"
Longitude 88° 24'00"



THIS FILE IS CLOSED

THE MATERIAL ENCLOSED IN THIS FILE BEGINS ON:

DATE : 1981

AND ENDS ON:

DATE : 1987

THERE IS MORE RECENT INFORMATION IN THE NEXT FILE ON THIS SITE

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

April 16, 1984

FILE COPY

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. P. C. Gaskin, Director
Environmental and Quality Control
Kerr-McGee Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

At its meeting held on Wednesday, April 11, 1984, the Mississippi Commission on Natural Resources considered certain evidence regarding your wood preserving plant located in Columbus, Mississippi. Enclosed is Commission Order No. 697-84, 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 questions, please do not hesitate to contact us.

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. 697 84

KERR MCGEE CHEMICAL CORPORATION

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.

The Respondent, Kerr McGee Chemical Corporation, located in Columbus, 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 detected a significant increase in two groundwater contamination parameters, while conducting groundwater monitoring, as required by MHWMR 265.90, and notified the Department on February 8, 1984.

3.

The Respondent submitted an assessment plan, as required by MHWMR 265.93 on March 21, 1984, to determine the cause and extent of the contamination, if any, which may be arising from hazardous waste management operations at the facility.

4.

The assessment plan, which is to be implemented in three stages, should adequately define the extent of the contamination, if any, arising from the regulated units at the facility.

5.

Premises considered, the Commission finds that the Respondent shall implement the assessment plan, on the schedule included therein, and shall report the results of the assessment to the Department as quickly as possible, but not later than three months from the date of this order for Phase I, four months for Phase II, if necessary, and five months for Phase III, if necessary.

Appeal bond from this Order is set at $500.00.

ORDERED AND ADJUDGED, this the 11th day of April, 1984, by the Mississippi Commission on Natural Resources.

MISSISSIPPI DEPARTMENT OF
NATURAL RESOURCES

BY: _____
CHARLIE L. BLALOCK
EXECUTIVE DIRECTOR

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

September 9, 1983

CERTIFIED-RETURN RECEIPT REQUESTED

Mr. David E. Lee, Chief
Hazardous Waste Section
Division of Solid Waste Management
Bureau of Pollution Control
Mississippi Department of Natural Resources
P. O. Box 10385
Jackson, MS 39209

RE: Semi-Annual Groundwater
Monitoring Report
I. D. No. MSD990866329
Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, Mississippi

Dear Mr. Lee:

Attached are analytical results and chain of custody for the first semi-annual sampling of groundwater monitoring wells at the Kerr-McGee Chemical Corporation, Forest Products Division, Columbus Facility. The samples were taken July 1, 1983.

Comparison of the data to established first-year background was done, using the Student's T-Test at the 0.01 signficance level as outlined in the Mississippi Hazardous Waste Regulations, Part 265, for interim status facilities.

Statistically significant differences from background were noted in all downgradient monitor wells for specific conductivity and pH.

The monitor well data from the inception of sampling to date has shown these general downgradient well trends for both components when compared to the upgradient well. However, during this period, there is also a discernable downward trend in conductivity values for all wells indicating a gradual approach to background.

We believe the specific conductivity levels may be the result of boiler blowdown, which, in the past, was discharged into a surface drainage ditch in the area. This discharge was stopped some years ago, and the improvement shown by the one and one-half years well monitoring indicates gradual removal of the source.

FOREST PRODUCTS

Concentrations of total organic carbon (TOC) and total organic halogen (TOX) are statistically comparable between the up and downgradient wells. This indicates that hazardous constituents, K001 are not migrating from the RCRA storage surface impoundment.

We believe resampling the wells for specific conductivity and pH would only confirm what we already know, and the downward trend will continue. We, therefore, propose that further action beyond development of historical background information be postponed until the results of the second semi-annual sampling occurs in December.

Groundwater elevations (MSL) for each monitor well at the time of sampling are as follows:

CMW #1	-	182.25'
CMW #2	-	179.38'
CMW #3	-	178.82'
CMW #4	-	178.66'

Please call if you have any questions.

Sincerely yours,

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. Gaskin
Environmental & Quality Control

PCG:jw
Attachments

cc: B. W. Boisseau

Report for: 1st 19 83

Semi-Annual

ANNUAL GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES (INTERIM PERMIT STATUS)

EPA Fac. No. MSD990866329

Company Well Number CMW-3

Gradient Up __ Down X

Company Name: KERR-McGEE CHEMICAL CORPORATION

Business Address: 14th Ave. & 20th St. North, Columbus, MS

Phone: (601) 328-7551

Zip: 39701

TABLE 1

CONTAMINATION INDICATOR PARAMETERS: FIRST SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
1	070183	BAILER	178.82

SAMPLE PERIOD	PARAMETER UNITS		pH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
1	REPLICATE	1	5.9	336	1.8	0.05
1	REPLICATE	2	5.7	336	2.4	0.06
1	REPLICATE	3	5.9	336	2.4	<0.05
1	REPLICATE	4	5.8	336	2.2	0.05
1	MEAN		5.8	336	2.2	0.05
1	VARIANCE		0.009	0	0.08	0.00003
1	T VALUE		-5.534	-6.629	0.917	-2.191

TABLE 2

CONTAMINATION INDICATOR PARAMETERS: SECOND SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
2			

SAMPLE PERIOD	PARAMETER UNITS		PH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
2	REPLICATE	1				
2	REPLICATE	2				
2	REPLICATE	3				
2	REPLICATE	4				
2	MEAN					
2	VARIANCE					
2	T VALUE					

TABLE 3

GROUNDWATER QUALITY INDICATOR PARAMETERS: ANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)

SAMPLE PERIOD	PARAMETER UNITS	CHLORIDE mg/ℓ	IRON mg/ℓ	MANGANESE mg/ℓ	PHENOLS mg/ℓ	SODIUM mg/ℓ	SULFATE mg/ℓ

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents. I believe that the submitted information is true, accurate and complete.

P. C. GASKIN
Prepared By

Signature of Authorized Agent

9/9/83
Date

0020E

Report for: 1st 19 83
Semi-Annual

ANNUAL GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES (INTERIM PERMIT STATUS)

EPA Fac. No. MSD990866329
Company Well Number CMW-2
Gradient Up __ Down X

Company Name: KERR-McGEE CHEMICAL CORPORATION
Phone: (601) 328-7551
Business Address: 14th Ave. & 20th St. North, Columbus, MS
Zip: 39701

TABLE 1
CONTAMINATION INDICATOR PARAMETERS: FIRST SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
1	070183	BAILER	179.38

SAMPLE PERIOD	PARAMETER UNITS		pH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
1	REPLICATE	1	6.4	309	<1	<0.05
1	REPLICATE	2	6.3	309	<1	<0.05
1	REPLICATE	3	6.2	309	<1	<0.05
1	REPLICATE	4	6.4	309	<1	0.06
1	MEAN		6.3	309	1	0.05
1	VARIANCE		0.009	0	0	0.00003
1	T VALUE		-7.816	-5.482	1.302	-2.191

TABLE 2
CONTAMINATION INDICATOR PARAMETERS: SECOND SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
2			

SAMPLE PERIOD	PARAMETER UNITS		PH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
2	REPLICATE	1				
2	REPLICATE	2				
2	REPLICATE	3				
2	REPLICATE	4				
2	MEAN					
2	VARIANCE					
2	T VALUE					

TABLE 3
GROUNDWATER QUALITY INDICATOR PARAMETERS: ANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)

SAMPLE PERIOD	PARAMETER UNITS	CHLORIDE mg/ℓ	IRON mg/ℓ	MANGANESE mg/ℓ	PHENOLS mg/ℓ	SODIUM mg/ℓ	SULFATE mg/ℓ

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents. I believe that the submitted information is true, accurate and complete.

P. C. GASKIN — Prepared By

Signature of Authorized Agent

9/9/83 — Date

0020E

Report for: 1st 19 83

Semi-Annual

ANNUAL GROUND WATER MONITORING REPORT FOR HAZARDOUS WASTE FACILITIES (INTERIM PERMIT STATUS)

EPA Fac. No. MSD990866329

Company Well Number CMW-1

Gradient Up X Down

Company Name: KERR-McGEE CHEMICAL CORPORATION Phone: (601) 328-7551

Business Address: 14th Ave. & 20th St. North, Columbus, MS Zip: 39701

TABLE 1

CONTAMINATION INDICATOR PARAMETERS: FIRST SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
1	070183	BAILER	182.25

SAMPLE PERIOD	PARAMETER UNITS		pH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
1	REPLICATE	1	4.7	232	1.6	<0.05
1	REPLICATE	2	4.6	232	1.8	<0.05
1	REPLICATE	3	4.6	232	1.8	<0.05
1	REPLICATE	4	4.7	232	1.6	<0.05
1	MEAN		4.65	232	1.7	0.05
1	VARIANCE		0.003	0	0.013	0
1	T VALUE		-0.172	-2.210	1.077	0

TABLE 2

CONTAMINATION INDICATOR PARAMETERS: SECOND SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
2			

SAMPLE PERIOD	PARAMETER UNITS		PH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
2	REPLICATE	1				
2	REPLICATE	2				
2	REPLICATE	3				
2	REPLICATE	4				
2	MEAN					
2	VARIANCE					
2	T VALUE					

TABLE 3

GROUNDWATER QUALITY INDICATOR PARAMETERS: ANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)

SAMPLE PERIOD	PARAMETER UNITS	CHLORIDE mg/ℓ	IRON mg/ℓ	MANGANESE mg/ℓ	PHENOLS mg/ℓ	SODIUM mg/ℓ	SULFATE mg/ℓ

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents. I believe that the submitted information is true, accurate and complete.

P. C. GASKIN — Prepared By

Signature of Authorized Agent

9/9/83 — Date

0020E

Report for: 1st 1983

Semi-Annual

ANNUAL
GROUND WATER MONITORING REPORT
FOR HAZARDOUS WASTE FACILITIES
(INTERIM PERMIT STATUS)

EPA No. MSD990866329
Company Well Number CMW-4
Gradient Up __ Down X

Company Name: KERR-McGEE CHEMICAL CORPORATION
Business Address: 14th Ave. & 20th St. North, Columbus, MS
Phone: (601) 328-7551
Zip: 39701

TABLE 1
CONTAMINATION INDICATOR PARAMETERS: FIRST SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
1	070183	BAILER	178.66

SAMPLE PERIOD	PARAMETER UNITS	pH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
1	REPLICATE 1	5.6	408	2.8	0.05
1	REPLICATE 2	5.7	408	5.0	0.05
1	REPLICATE 3	5.6	408	4.8	<0.05
1	REPLICATE 4	5.6	408	4.6	<0.05
1	MEAN	5.6	408	4.3	0.05
1	VARIANCE	0.003	0	1.03	0
1	T VALUE	-4.638	-9.688	0.244	0

TABLE 2
CONTAMINATION INDICATOR PARAMETERS: SECOND SEMIANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)
2			

SAMPLE PERIOD	PARAMETER UNITS	PH UNITS	CONDUCTIVITY µmhos	TOC mg/ℓ	TOH mg/ℓ
2	REPLICATE 1				
2	REPLICATE 2				
2	REPLICATE 3				
2	REPLICATE 4				
2	MEAN				
2	VARIANCE				
2	T VALUE				

TABLE 3
GROUNDWATER QUALITY INDICATOR PARAMETERS: ANNUAL MEASUREMENTS

SAMPLE PERIOD	SAMPLE DATE MMDDYY	SAMPLE METHOD	GROUND WATER ELEV. (FT.)

SAMPLE PERIOD	PARAMETER UNITS	CHLORIDE mg/ℓ	IRON mg/ℓ	MANGANESE mg/ℓ	PHENOLS mg/ℓ	SODIUM mg/ℓ	SULFATE mg/ℓ

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents. I believe that the submitted information is true, accurate and complete.

P. C. GASKIN
Prepared By

Signature of Authorized Agent

9/9/83
Date

0020E

HARMON ENGINEERING AND TESTING
SCIENTISTS ■ ENGINEERS ■ SURVEYORS
AUBURN INDUSTRIAL PARK / AUBURN, ALA. 36830 / (205) 821-9250

GROUNDWATER MONITORING

CHAIN-OF-CUSTODY DOCUMENT

FIELD DATA

Facility: Kerr McGee
Location: PO Box 906
Columbus Miss
39701

Contact Person: Mr Compton
Phone: (601) 328-7551

LAB DATA

Project No. 661-07
Date Received 7-5-93
Condition Upon Receipt
O/S

SAMPLE COLLECTION INFORMATION

Well No.	Bail or Pump	*Water Level Pre-Purge	Water Level Pre-Sample	Casing Volumes Removed	Elapsed Time to Sampling	Aliquots Taken	Initials	Date	Time
4	B	3'8"	3'10"	≈3	1053min	2	CS	7/1	8:5
3	B	3'0"	3'3"	≈3	35min	2	CS	7/1	8:5
2	B	1'6"	5'1"	≈3	33min	2	CS	7/1	9:0
1	B	10'11"	11'7"	≈3	27min	2	CS	7/1	9:0

ANALYSES REQUESTED

- ☒ ~~pH~~
- ☐ Conductance
- ☒ ~~Total Organic Carbon~~
- ☒ Total Organic Halogens
- ☐ Chloride
- ☐ Iron
- ☐ Manganese
- ☐ Sodium
- ☐ Sulfate
- ☐ Phenols

Upgradient Well(s) Well #1

OTHER
- ☐ Drinking Water Parameters
- ☐
- ☐

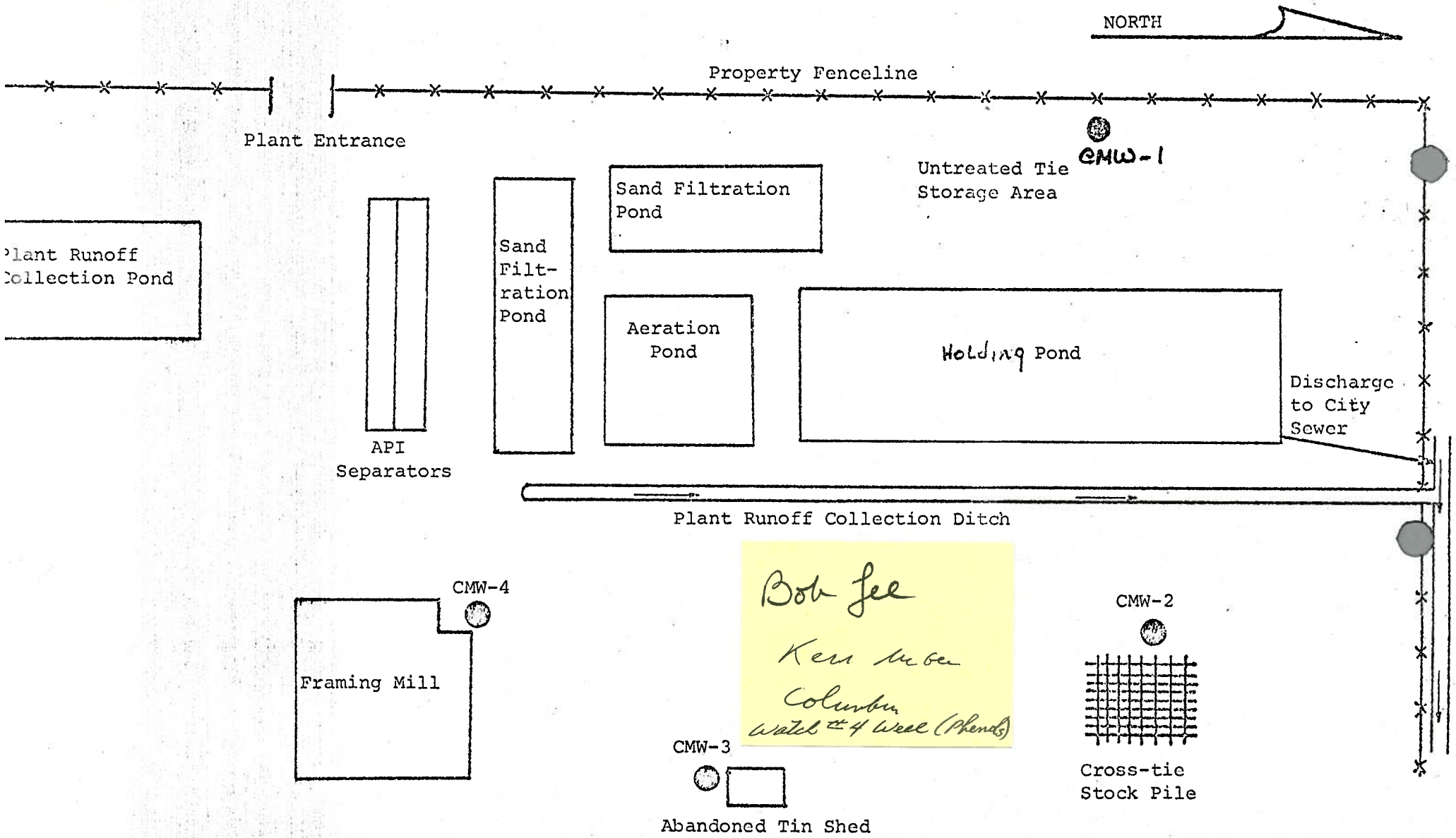
SAMPLE TRANSFER INFORMATION

	Relinquished By	Relinquished To	Date	Time	Reason
1.	C Simmons	Laymont Rasmussen	5-7-93	0915	Lab Analysis
2.					
3.					
4.					

Note: First Signature is Sampler or Field Team Supervisor Final Signature is Authorized Laboratory Representative. Chain-of-Custody complete upon Lab Receipt. A copy will be returned to client.

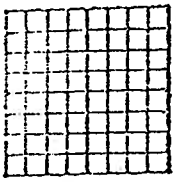
• Referenced at top of well casing

GENERAL LOCATION OF RCRA
GROUNDWATER MONITOR WELLS
COLUMBUS, MISSISSIPPI



DRILLING LOG

KM-CORP.
Forest Products
CITY
Columbus
STATE
Mississippi



LOCATION PLOT

DRILL RIG TYPE: Auger
DRILL FLUID: None
TOP OF CASING ELEV: _____ TD: 31'
BIT TYPE: _____ BIT SIZE: 6"

COMPLETION
CASING: PVC OD: 4 1/2, 4" I.D.
SCREEN: _____ DEPTH: 8' TO 23'
PACK: ☐ SAND ☒ GRAVEL DEPTH 8'-23'
BACK FILLING: ☐ CUTTINGS ☒ BENTONITE ☒ CEMENT ☐ NONE

WELL No. CMW-1
SHEET 1 OF 2
LOCATION Lowndes Co.
SEC. 10 T 18S R 18W
DRILLED BY Ed Springer
BEGAN 6-25-81
COMPLETED 6-25-81
LOGGED BY: SFL
DATE 6-30-81

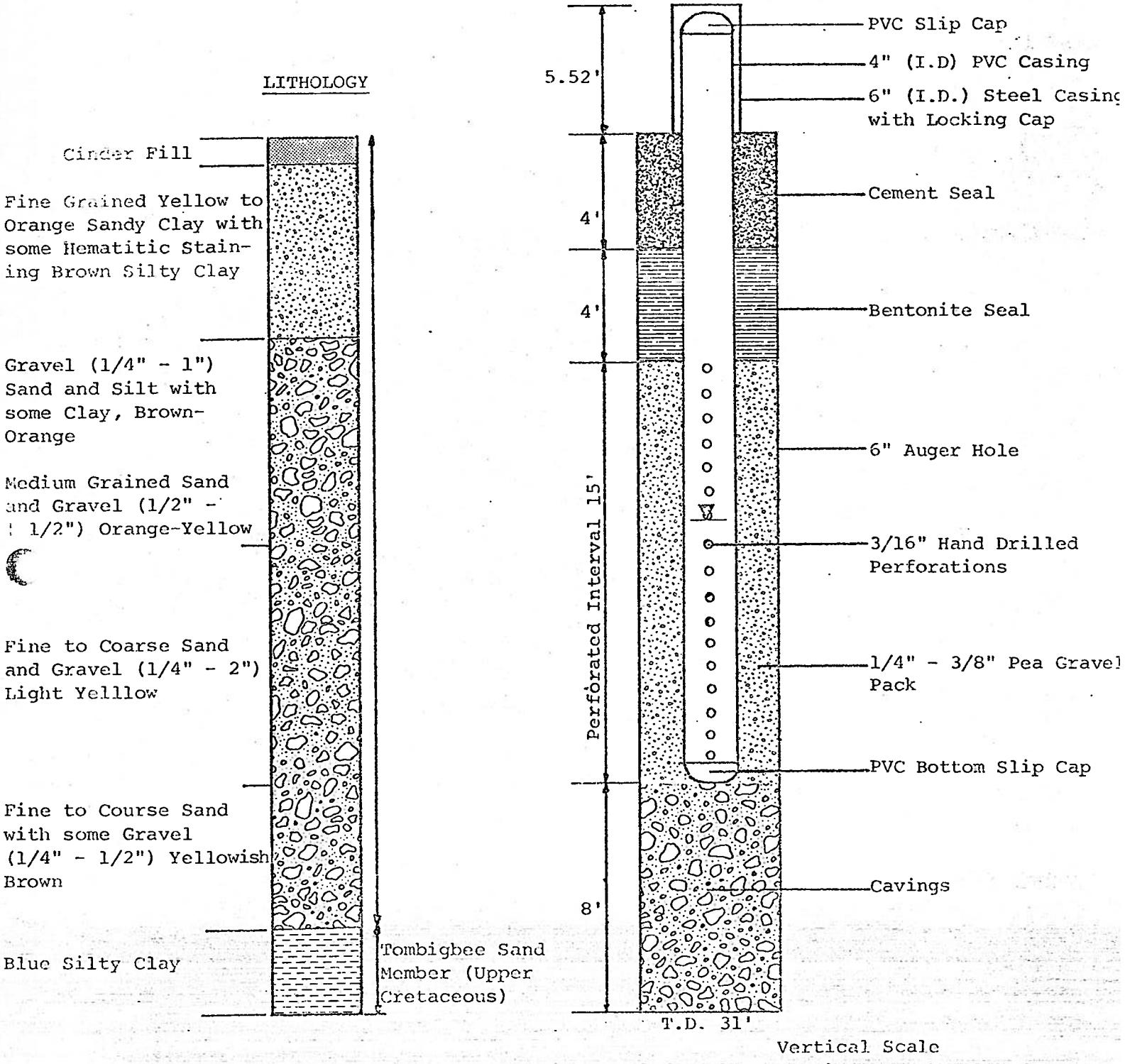
REMARKS: Drilled to a depth of 31'. Cased to 23' because of caving, perforated 8' to 23'. Bentonite 4' to 8', cement seal to surface and gravel packed.

FT	LITHO	DESCRIPTION
1		Cinder fill
2		Yellowish orange sandy clay, fine grained
3		some hematite staining
4		" "
5		Brown silty clay, some hematite staining
6		" "
7		" "
8		Gravel (1/4" - 1") sand and silt with some clay
9		Brownish orange
10		Medium grained sand and gravel (1/2" - 1 1/2")
11		Orange/yellow damp
12		" "
13		" "
14		" "
15		Fine to coarse tight yellow sand and gravel (1/4" - 2")
16		" "
17		" "
		" "

	KM CORP. Forest Products	JOB: Springfield	WELL No. CMW-1	SHEET 2 OF 2

FT	LITHO	DESCRIPTION
18		
19		Gravel (1/4" - 1 1/2") with some coarse sand
20		" "
21		As above with more sand
22		" "
23		" "
24		Fine to coarse grained yellowish brown
25		Sand and gravel (1/4" - 1/2")
26		" "
27		" "
28		" "
29		Blue silty clay (Tombigbee sand member)
30		" "
31		" "
		Total Depth 31'

COLUMBUS POND MONITOR WELL CMW-1
Well Construction Diagram



Vertical Scale

1 inch = 5 feet

Constructed June 25, 1981

DRILLING LOG

KM-CORP.
Forest Products
CITY
Columbus
STATE
Mississippi

LOCATION PLOT

DRILL RIG TYPE: Auger

DRILL FLUID: none

TOP OF CASING ELEV: _____ TD: 25'

BIT TYPE: _____ BIT SIZE: 6"

COMPLETION

CASING: PVC OD: 4 1/2" ID 4"
SCREEN: _____ DEPTH: 8' TO 25'
PACK: ☐ SAND ☒ GRAVEL DEPTH 8'
BACK FILLING: ☐ CUTTINGS ☒ BENTONITE
☒ CEMENT ☐ NONE

WELL No. CMW-2
SHEET 1 OF 1
LOCATION Lowndes Co.
SEC. 10 T 18S R 18W
DRILLED BY: Ed Springer

BEGAN 6-25-81

COMPLETED 6-25-81

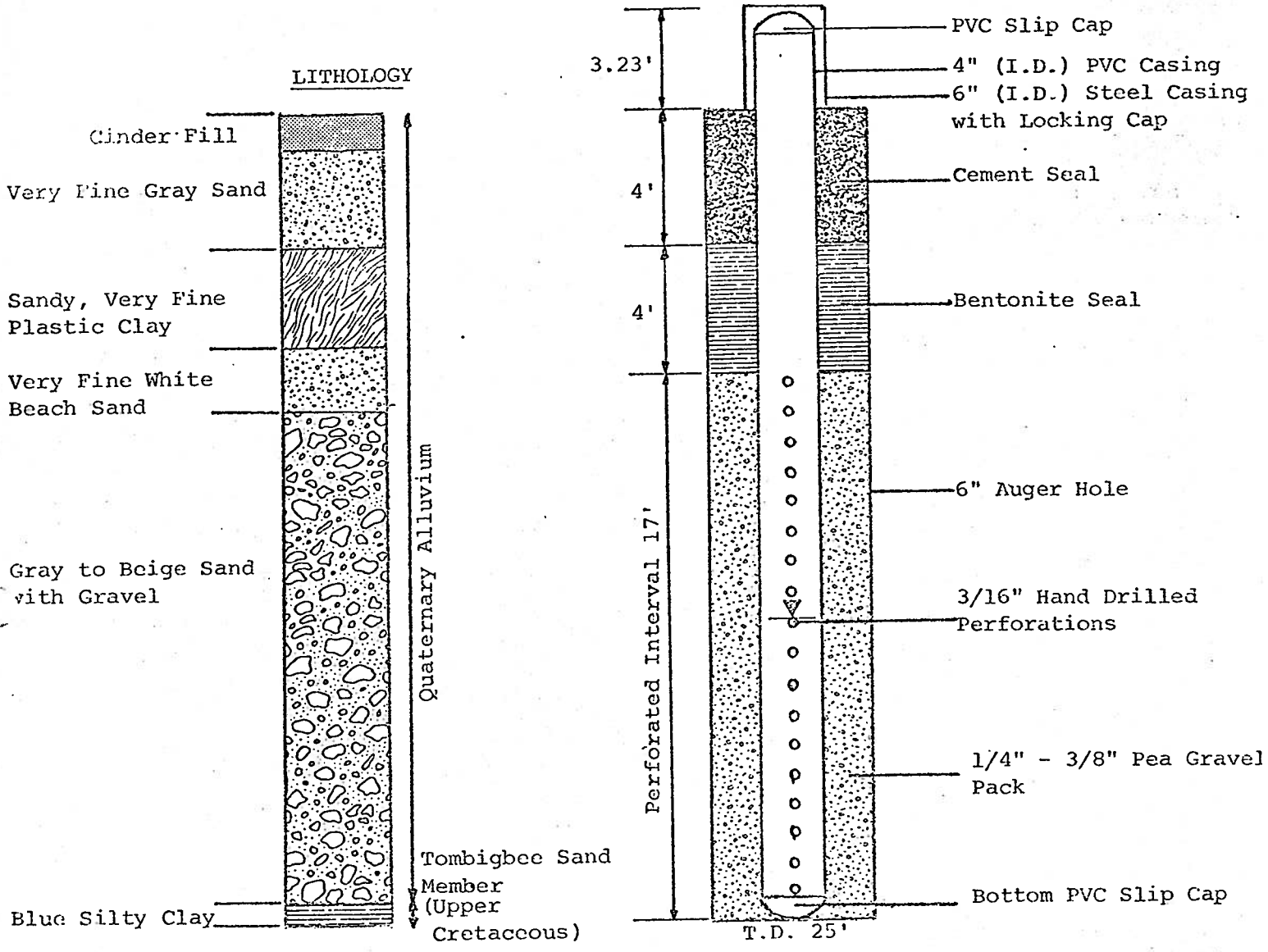
LOGGED BY: SFL

DATE 6-30-81

REMARKS: Drilled and cased to a depth of 25'. Perforated and gravel packed from 8' to 25'. Bentonite seal from 4' to 8'. Cement seal to surface.

FT	LITHO	DESCRIPTION
1		Cinder fill
4		Very fine gray sand
7		Very fine sandy plastic clay
9		Very fine white beach sand
24		Gray to beige sand and gravel
25		Blue silty clay. (Tombigbee sand member)
		Total depth 25'

COLUMBUS POND MONITOR WELL CMW-2
Well Construction Diagram



Vertical Scale

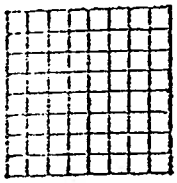
1 inch = 5 feet

Constructed June 25, 1931

Water level measurements made on 6-26-81.

DRILLING LOG

KM-CORP.
Forest Products
CITY
Columbus
STATE
Mississippi



LOCATION PLOT

DRILL RIG TYPE: Auger

DRILL FLUID: None

TOP OF CASING ELEV: _____ TD: 20'

BIT TYPE: _____ BIT SIZE: 6"

COMPLETION

CASING: PVC OD: 4 1/2" ID 4"

SCREEN: _____ DEPTH: 6' TO 24'

PACK: ☐ SAND ☒ GRAVEL DEPTH _____

BACK FILLING: ☐ CUTTINGS ☒ BENTONITE ☒ CEMENT ☐ NONE

WELL No. CMW-3
SHEET 1 OF 1
LOCATION: Lowndes Co.
SEC. 10 T 18S R 18W
DRILLED BY: Ed Springs

BEGAN 6-25-81

COMPLETED 6-25-81

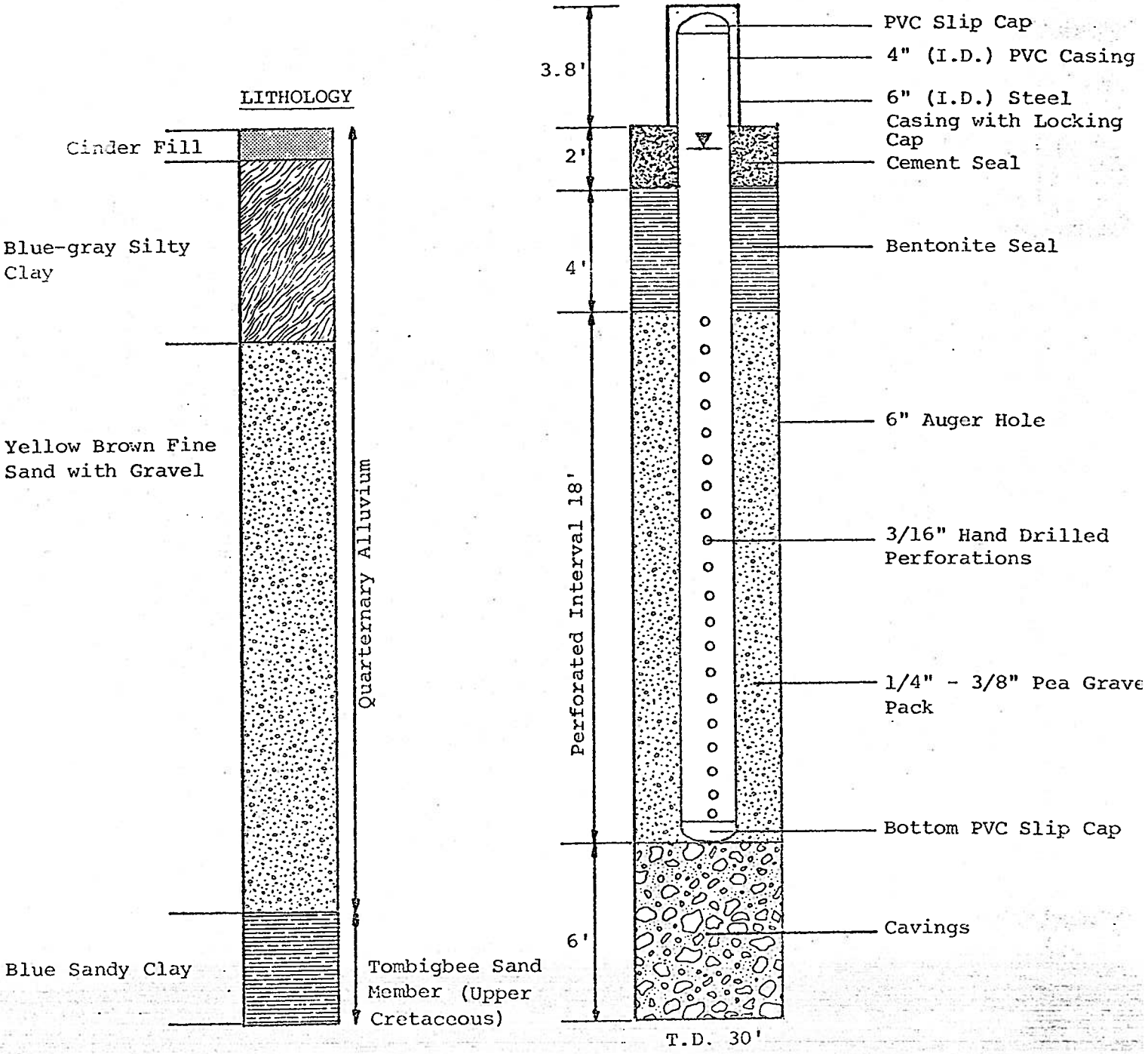
LOGGED BY: SFL

DATE 6-30-81

REMARKS: Drilled to a depth of 30'. Cased to a depth of 24' because of caving. Perforated and gravel packed from 6' to 24'. Bentonite seal from 2' to 6'. Cement Seal to surface

FT	LITHO	DESCRIPTION
1'		Cinder fill
7'		Blue to gray silty clay
26'		Yellowish brown fine to coarse sand with gravel
30'		Blue sandy clay (Tombigbee sand member)
		Total depth 30'

COLUMBUS POND MONITOR WELL CMW-3
Well Construction Diagram



Vertical Scale

1 inch = 5 feet

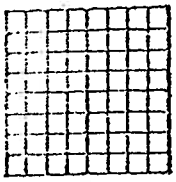
Constructed June 25, 1981

DRILLING LOG

KM-CORP.
Forest Products

CITY
Columbus

STATE
Mississippi



LOCATION PLOT

DRILL RIG TYPE: Auger

DRILL FLUID: None

TOP OF CASING ELEV: _____ TD: 27'

BIT TYPE: _____ BIT SIZE: 6"

COMPLETION

CASING: PVC OD: 4 1/2 ID 4"

SCREEN: _____ DEPTH: 6' TO 20'

PACK: ☐ SAND ☐ GRAVEL DEPTH _____

BACK FILLING: ☐ CUTTINGS ☒ BENTONITE ☒ CEMENT ☐ NONE

WELL No. CMW-4

SHEET 1 OF 1

LOCATION Lowndes Co.

SEC. 10 T 18S R 18W

DRILLED BY Ed Springer

BEGAN 6-25-81

COMPLETED 6-25-81

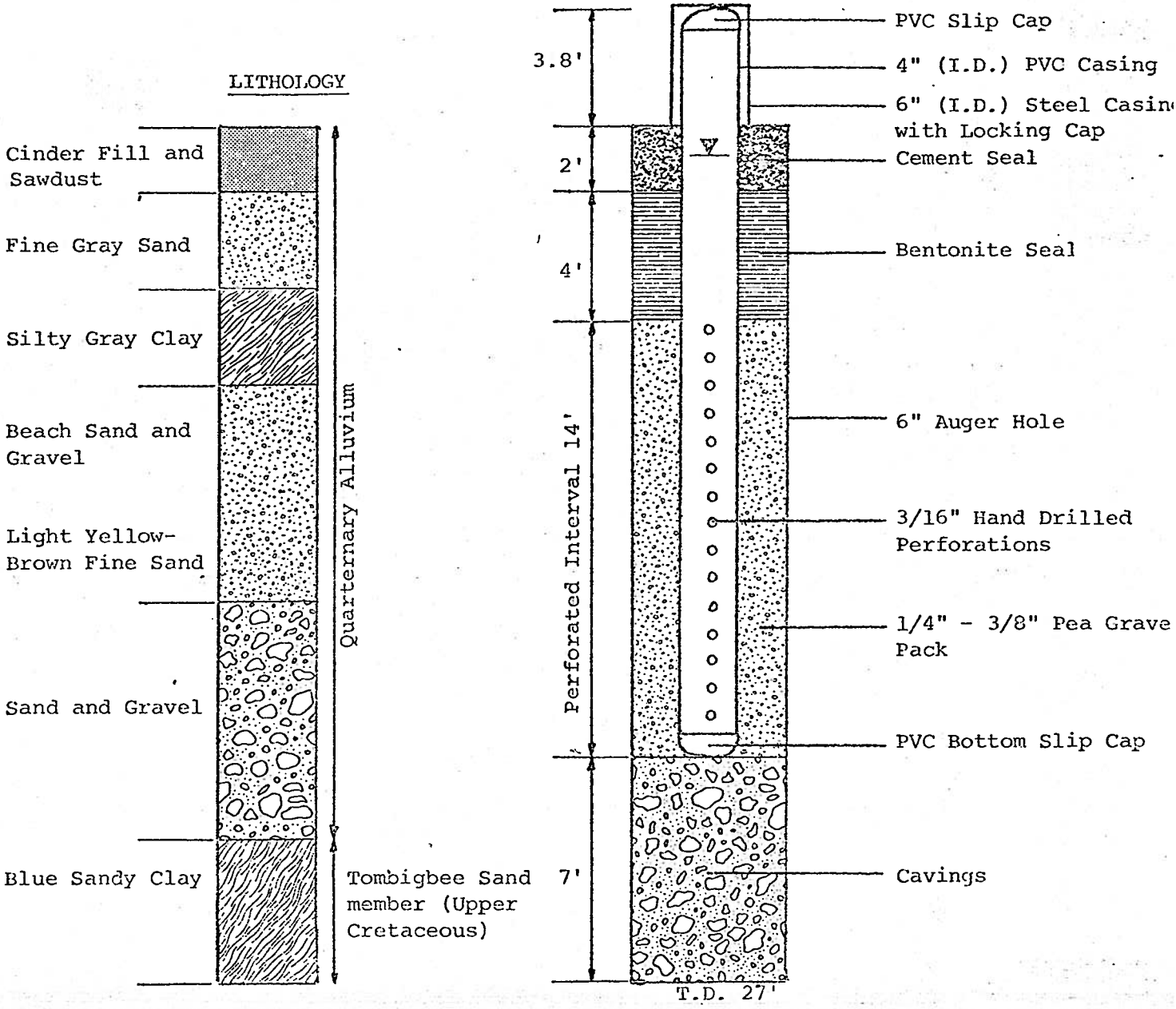
LOGGED BY: SFL

DATE 6-30-81

REMARKS: Drilled to a depth of 27'. Cased to a depth of 20' because of caving. Perforated and gravel packed from 6' to 20'. Bentonite seal from 2' to 6'. Cement Seal to surface

FT	LITHO	DESCRIPTION
2		Cinder fill and sawdust, creosote noted
5		Fine gray sand
8		Silty gray clay
15		Light yellow beach sand and gravel
23		Sand and gravel
27		Blue sandy clay (Tombigbee Sand Member)
		Total depth 27'

COLUMBUS POND MONITOR WELL CMW-4
Well Construction Diagram



Vertical Scale

1 inch = 5 feet

Constructed June 25, 19

Water level measurements made on 6-26-81.

KERR-McGEE CHEMICAL CORPORATION
INTERNAL CORRESPONDENCE

TO Distribution

DATE December 2, 1981

FROM P. C. Gaskin

SUBJECT RCRA Groundwater Quality Assessment Outline

A written outline for a groundwater quality assessment program is required by RCRA for hazardous waste surface impoundments, landfills and landfarms by November 19, 1981 (45 FR 33241). This outline would be used if a groundwater quality assessment is ever required.

Attached is an outline to be kept on file at your facility.

PCG/lbm

Attachment

Distribution: B. H. Compton
C. W. Durham
B. W. Boisseau
B. L. McDaniel
G. D. Lowe

CC: W. J. Broussard
D. G. Hoffman

GROUNDWATER QUALITY ASSESSMENT PROGRAM OUTLINE

I. Evaluate Actual and Potential Migration of Hazardous Waste (HW) from the Existing HW Management Area.

A. Evaluate physical and chemical characteristics of groundwater from monitoring well data.

B. Identify and characterize alternate sources of HW that may influence the site.

1. Existing and Historical on-site
2. Existing and Historical off-site

C. Evaluate construction details, operating procedures and operating history of the HW facility.

D. Perform a water balance (if possible) around the HW management area.

E. Examine water levels adjacent to the HW facility.

II. Define Hydrogeologic Environment

A. Potentially impacted aquifer(s):

1. Depth
2. Thickness
3. Areal Extent
   a. local recharge and discharge points
   b. determine groundwater usage of aquifer(s)

B. Estimate aquifer parameters:

1. Transmissivity
2. Storage coefficient
3. Hydraulic conductivity
4. Effective porosity

C. Estimate local and regional directions and average velocities of groundwater flow:

1. Develop potentiometric maps of aquifer systems using water levels from current monitoring points.
2. Develop depth-to-water maps.

III. Define an Expanded Monitoring Well System

A. Review historical groundwater data (if any).

B. Establish locations and depths for new monitoring wells to delineate boundaries of impacted areas.

C. Sample and analyze monitoring wells for the HW constituents at the facility.

1. Determine parameters
2. Determine sampling and analysis procedures
3. Determine frequency of sampling

IV. Evaluate Impact from Existing HW Management Area

A. Evaluate physical and chemical characteristics of groundwater and determine concentrations of HW constituents.

B. Estimate rate of HW migration.

C. Estimate extent of HW migration.

D. Interpret analytical results in terms of water quality criteria and other applicable regulations.

E. Assess significance of analytical data in terms of compliance requirements.

V. Prepare Schedule of Implementation

A. Submit assessment plan of EPA or to the State if it has obtained RCRA interim authorization.

B. Install additional monitoring wells.

C. Initiate sampling and analysis.

D. Evaluate analytical and physical data.

E. Install additional wells, if necessary, and monitor.

F. Estimate area impacted from existing HW Management Area.

G. Submit assessment report to EPA or to the State if it has obtained RCRA interim authorization.

RCRA INSPECTION REPORT

1. Inspector and Author of Report

   Undine Johnson

2. Facility Information

   Kerr McGee Corporation - Columbus

3. Responsible Company Official

   Bill Creekmore

4. Inspection Participants

   Undine Johnson, MSDNR
   Bill Creekmore, Kerr McGee Corporation

5. Date and Time of Inspections

   June 24, 1987, 1:15 p.m.

6. Applicable Regulations

   Mississippi Hazardous Waste Management Regulations, Part 265, Closure and Post-Closure Care

7. Purpose of Inspection

   To verify compliance with interim status standards.

8. Facility Description

   Kerr McGee Corporation is located in Columbus, Mississippi. In the past practices, the facility treated poles with creosote and pentachlorophenol. Wastewater generated from this process was disposed of in two surface impoundments.

   These units were certified closed on June 19, 1986. Clean closure was not accomplished.

   Groundwater contamination has not been detected. A Post-Closure Part B Application was submitted to the Bureau on March 12, 1987.

9. Findings

   A class two violation was found - warning signs had not been posted on the closed units as required by the State approved closure plan.

   All other records were in order.

10. Conclusions

The facility had a class two violation; the warning signs had not been posted.

11. Recommendations

None. No class one violation was noted; Bill Creekmore informed me that the signs had been ordered and would be posted within the next three weeks. Facility will be asked to notify the Bureau in writing once this had been done.

12. Signed

Inspector

13. Approval

cc: Mr. James H. Scarbrough, EPA

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Kerr McGee Corp.
LOCATION Columbus, MS
DATE 6-24-87
INSPECTORS Undine Johnson-MSDNR

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.			✓	No foreign waste is received
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.			✓	Ownership has not been changed
265.13 General Waste Analysis				
Before treating, storing, or disposing of haardous 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.	✓			Sludges and contaminated soils have been removed from the impoundment. A waste analysis on remaining hazardous constituents is on file.
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;				The integrity of the final cover must not be impaired.
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.				

REQUIREMENT	Not in compliance - No Not applica - NA Yes	No	N/A	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.		✓		Warning signs were not posted
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 closed unit is inspected three times per week.
b) The owner or operator must develop and follow a schedule and plan for inspections.	✓			The final cover is inspected for the growth of plants and the presence of standing water.
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.	✓			

REQUIREM...f	Not in compliance - No Not applicat - NA Yes	No	N/A	COMMENTS
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 in compliance - No
Not applica - NA

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.			✓	

In compliance - Yes
Not in comp. ance - No
Not applicable - NA

REQUIREMENT	Yes	No	N/A	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: a) releases, fires, explosions b) groundwater contamination c) facility closure.				

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.	✓			The facility is in detection monitoring. No groundwater contamination has been detecte
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:				Facility closed the impoundmen on June 18, 1986. Sludges and contaminated soils were removed.
1) minimizes the need for future maintenance, and	✓			
2) controls, minimizes, or eliminates post-closure escape of hazardous waste.	✓			A vegetative was not placed on top due to the potential for a fire hazard.
265.112(a) The owner or operator must have a written closure plan on the effective date of Part 265.	✓			

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.	✓			An independent, Professional Engineer certified closed on June 19, 1986. The owner certified closed on July 7, 1986. The deed documentation was submitted on March 9, 1987.

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.			✓	

Add.
265.143 The owner/operator must maintain a financial assurance for closure/post closure

A) Assurance Mechanism: closure / post closure
a) Closure Trust fund ____ ____
b) Surety Bond ____ ____
c) Letter of Credit ____ ____
d) Closure Insurance ____ $685800
e) Corporate Guaranty ____ ____
B) Amount correct ____ ____

Add.
265.147(e) The owner/operator must maintain current liability coverage:
Insurance policy ____
Financial test ____
Combination [illegible] ____
Are amounts correct: ____
[illegible] (1M/3M) ____
[illegible] (M/6M) ____

REQUIREMENT	Not in compliance - No Not applicable - NA 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.				
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.				

REQUIREM	Not in compliance		Not applicable - NA	COMMENTS
	Yes	No	N/A	
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.			✓	The surface impoundment was closed in accordance with MTHWMR 265.228
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.	✓			

REQUIREMENT	Not applicable - NA			COMMENTS
	Yes	No	N/A	
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.			✓	

REQUIREMENT	Not in compliance - No Not applica - NA Yes	No	N/A	COMMENTS
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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
265.281 Ignitable or reactive waste must not be placed in a land treatment facility unless 265.281 is complied with.			✓	
265.282 Incompatible wastes 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.				
265.313 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	Not applicable - NA			COMMENTS
	Yes	No	N/A	
265.315 (i) 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				

REQUIREM	Not applicab' - NA			COMMENTS
	Yes	No	N/A	
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.			V	

EPA - Region IV

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 sould require corrective action under Section 3004U of the Hazrdous 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 2-22-85

2) Date response received 3-8-85

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

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

N/A

_____ 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

N/A

_____ b) Air

_____ c) Surface Waters

_____ d) Soils

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

N/A

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

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?

N/A _____ a) Yes

_____ b) No

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 _____

_____

_____ 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 _____

_____ 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

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:

_____

_____

_____

_____

_____

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 5-8-85

Inspectors Name Donald G. McGraw

Inspectors Signature [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.).

N/A

_____

_____

_____

_____

_____

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

✓ b) No

7. A Remedial Investigation (R.I.) is needed to evaluate the nature and extent of prior releases of hazardous wastes or constituents from Solid Waste Management Units.

_____ a) Yes

_✓_ b) No

8. If the answer to No. 7 above is "Yes", the priority and manner for requiring the applicant to conduct the Remedial Investigation (R.I.) is as follows:

_____ a) Require R.I. in compliance schedule that is part of RCRA permit.

_____ b) Issue Compliance Order requiring R.I. to be done.

EPA - Region IV

Form for RCRA Facility Management Plan

I. Facility Information

Facility Name: KERR-McGEE CHEMICAL CORPORATION, WOOD PRODUCTS DIV.

EPA I.D. No.: MSD 990866329

Facility Address: 507 14th. St. North

Columbus, MS. 39701

Facility Management Strategy Prepared By:

Name: Donald G. McCraw 8-22-85

Agency/Organization: MDNR-BPC-SHWS

RCRA Regulated Units at Facility	Types of Wastes Handled
____ Storage in Tanks or Containers	
____ Incinerator	
____ Land Fill	
✓ Surface Impoundment	K001
____ Waste Pile	
____ Land Farming	

OUTLINE FOR DEVELOPING A FACILITY MANAGEMENT PLAN

I. Facility Analysis

A. Compliance Monitoring & Enforcement Status
B. Permit Status
C. Solid Waste Management Unit/Prior Release Information - (What is known?)
(What is needed?)
D. CERCLA Requirements, Status, Issues
E. Significance of Releases and Evaluation of Actions Needed

II. Problem Identification, Evaluation of Available Tools (authorities), and Recommended Solutions

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).

GW - 5

IS - 2

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?

DETECTION

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?

N/A

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.

N/A

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

N/A

Yes ____ No ____ Don't Know ____

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

N/A

Yes ____ No ____ Don't Know ____

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

NONE

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

ORDER - 4-16-84 GW ASSESSMENT

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.

N/A

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

NOTIFIED BPC OF INCREASE IN TWO GWMW ON 2-8-84
SUBMITTED ASSESSMENT PLAN TO BPC ON 3-21-84
COMPLETED WORK ADDRESSED IN ASSESSMENT ahead of schedule.

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

NONE

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

N/A

EPA - Region IV

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

1. Key Dates

1) Date Part B Called Clean Closing Impoundments 1985.

2) Date Part B Received N/A

3) Date First NOD Sent N/A

4) Date First Revised Part B Received N/A

5) Date 2nd NOD Sent _____

6) Date of Enforcement Actions for Deficient Part B _____

7) Date 2nd Revised Part B Received _____

8)* CP received 4-9-84, revised 6-11-84 and 9-7-84

9)* CP Approved 2-8-85

10)* _____

* 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)?

No GW Contamination Exist, Facility proposes to remove all HW and contaminated soil and Equipment down to non detectable levels and back-fill and close Impoundments.

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 deviciency.

ORDER 4-16-84

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
N/A	

5. Projected dates for making a final permit determination SEE #2

Permit Activity	Projected Date
Part B Review and NOD	
Enforcement Action for Deficient Part B	
Part B Determined Complete	
Draft Permit Prepared	
Draft Permit Public Noticed	
Public Hearing Held	
Permit Issued/Denied	

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.

N/A

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:

N/A 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.

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.

N/A

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

N/A

Yes ____ No ____ Don't Know ____

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

N/A

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

N/A

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 Complaince 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.)

✓ c. No Action Required

EPA - Region IV

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

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

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.

RCRA SITE INVESTIGATION COMPLETED and found NO NEED FOR CERCLA ACTION AT THIS SITE.

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

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

✓ d NO ACTION NEEDED

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.

__✓__ 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

N/A _____ 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

_____ b) Aquifers that have or may have contamination are used as a drinking water source ad 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:

N/A _____ a) Water samples have been analyzed and groundwater conamination 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

4) Issuance of a RCRA permit to this facility is likely to take: N/A
Closing 1985

Time	Mo/Yr
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)

✓ d. SINCE AN IMMINENT HAZARD DOES NOT EXIST, AND THE facility IS SCHEDULED TO CLOSE FY 85, NO FURTHER ACTION IS NEEDED AT THIS facility.

CONSIDERING THE SOLUTIONS
TO ADDRESS THE PROBLEMS

MAJOR PROBLEM IDENTIFIED	SOLUTION	POTENTIAL TOOLS	PROS/CONS
None Closure plan Approved, facility in process of closure			

SHORT TERM OBJECTIVE _____

LONG TERM OBJECTIVE _____

TIMETABLE OF KEY ACTIONS

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

STATUS OF COMPLIANCE WITH RCRA GROUNDWATER MONITORING REQUIREMENTS

FACILITY NAME: Kerr-McGee Corporation EPA ID NO. MSD-990-866-329

LOCATION: Columbus, Mississippi

CATEGORY: I INTERIM STATUS: YES/NO PART B STATUS: Closing under 265

GROUNDWATER CONTAMINATION: YES/NO/UNKNOWN Groundwater assessment completed 07/20/84. Appendix VII constituents below detectable limits.

CURRENT STATUS:

1. Compliance-Monitoring wells #3 and #4 are too far from the impoundments to immediately detect contamination. BPC required installation of one additional well closer to the impoundment on 04/30/85 (letter).

2. Technical Deficiencies-

ACTION/RECOMMENDATIONS:

1. Compliance/Enforcement-Track state closure

2. Technical/Information needs-Need accelerated sampling data on well closer to impoundment. Closure should be suspended until new well is sampled for Appendix VII constituents. Previous groundwater assessment conducted on wells too far from impoundment.

3. Corrective Action-

BACKGROUND INFORMATION:

1. Facility Description/Waste Types-Wood preserver, K001 sludge: creosote and pentachlorophenol.

2. Unit Type(s)-2 surface impoundments - regulated
2 " inactive" settling ponds - date of final waste volume unknown.

3. Compliance History-no orders on file

4. Closure/Post Closure-265 Closure plan submitted for public notice 01/21/85.

5. CERCLA Status-none known

MATERIALS REVIEWED: Part A x Part B ____ EPA Compliance Files x

State Files x Other _____

Prepared By: Joseph Hughart Date: May 20, 1985

2000-0356
9/30/83

CLOSURE AND POST-CLOSURE COMPLIANCE REVIEW CHECKLIST

I. GENERAL FACILITY INFORMATION

EPA ID # _____

Address _____

_____

Owner _____
(name and phone number)

Operator _____
(name and phone number)

Name of Facility KERR-McGEE CHEMICAL CORP. - Columbus

Date & Time of Inspection _____

Personnel Present _____

_____

_____

_____

_____

_____

Notes:

Closure plan was modified subsequent to this review and approved by the Permit Board in Feb.

DIVISION OF SOLID WASTE

REVIEWED BY JH

DATE _____

COMMENTS Review by HSU no major ISS violations noted some details need refinement

Type of Facility (check all that apply/fill-in blanks)

☐* X Storage ____ Treatment ____ Disposal

			Active	Inactive	Planned
☐	____	Containers		(number and volume)	
☐	____	Tanks		(number and volume)	
☐	____	Piles		(number and volume)	
☐	____	Incinerator		(gallons or tons per hour)	
☐	____	Landfill		(acres and volume)	
☐	____	Land Treatment		(acres and volume)	
☐	X	Surface Impoundment	1.25 acres, V_{max} = 2,100,000 gallons	(acres and volume)	
☐	____	Chemical/Physical/ Biological Treatment		(gallons or tons per hour)	
☐	____	Thermal Treatment		(gallons or tons per hour)	
☐	____	Underground Injection		(nominal operating rate)	

Describe tank and container conditions (e.g., age, remaining surface life, etc.) in Comments section.

*Checkboxes indicate items to be reviewed during on-site visit.

II. WRITTEN PLAN

★ 1. Is there a WRITTEN CLOSURE PLAN kept at the facility? (40 CFR 265.112(a)) — ~~YES~~ NO

2. Does the closure plan cover all areas and facilities that were ACTIVE as of 11/19/80? — ~~YES~~ NO

3. Does the closure plan include general information about the facility which would be helpful in reviewing the plan, including:

a. facility size(s)	~~YES~~	NO	
b. facility type(s)	~~YES~~	NO	
c. descriptions of all on-site equipment	~~YES~~	NO	
d. topography	~~YES~~	NO	
e. waste characterization	~~YES~~	NO	
f. soil type	~~YES~~	NO	
g. description of surrounding land use	~~YES~~	NO	
h. surrounding population	~~YES~~	NO	
i. size of facility (acres)	~~YES~~	NO	
j. volume of impoundment	~~YES~~	NO	N/A
k. type(s) of treatment/processing	~~YES~~	NO	N/A
l. description of liner	YES	NO	~~N/A~~
m. leachate collection system	YES	NO	~~N/A~~
n. gas collection system	YES	NO	~~N/A~~
o. dredging procedures/schedules, etc.	YES	NO	~~N/A~~
p. incinerator specifications	YES	NO	~~N/A~~
q. other (specify _____)	YES	NO	

III. MAXIMUM EXTENT OF OPERATION

★ 1. Does the plan identify the MAXIMUM EXTENT OF OPERATION which will be unclosed during the life of the facility? (40 CFR 265.112(a)(1)) — ~~YES~~ NO

□ 2. Is the MAXIMUM EXTENT OF OPERATION estimate exceeded by current operations? — YES ~~NO~~

□ 3. Does the MAXIMUM EXTENT OF OPERATION estimate include:

a. the maximum area of landfill or land treatment ever containing wastes?	YES	NO	~~N/A~~
b. inactive areas open because of operating problems or contingencies?	YES	NO	~~N/A~~
c. maximum area of land ever used for land spreading?	YES	NO	~~N/A~~

d.	the most extensive treatment required for land spreading?	YES	NO	~~N/A~~
e.	the maximum area used for storage?	~~YES~~	NO	N/A

Explain each "NO" answer in comment section.

IV. PARTIAL CLOSURE

★ 1. Does the plan identify the steps for PARTIAL CLOSURE, at any time during the intended operating life, of

a.	surface impoundments?	YES	~~NO~~	N/A
b.	landfills?	YES	NO	~~N/A~~
c.	tanks?	YES	NO	~~N/A~~
d.	other (specify: _____)	YES	NO	

(40 CFR 265.112(a))

IF NO PARTIAL CLOSURE PLAN, CIRCLE (N/A) AND SKIP TO SECTION V.

2. Does the PARTIAL CLOSURE plan identify

a.	the size of areas partially closed?	YES	NO	N/A
b.	procedures for partial closure?	YES	NO	
c.	maintenance program?	YES	NO	
d.	frequency of partial closures?	YES	NO	
e.	source of cover materials?	YES	NO	N/A

□ 3. Does the plan for PARTIAL CLOSURE demonstrate the adequacy of the cap, etc. to meet the closure requirements? YES NO

OR

Are these areas or activities otherwise included in the extent of operations of the closure plan? YES NO

4. Does the PARTIAL CLOSURE PLAN describe maintenance <u>activities</u> for partially closed areas, including:

a.	visual inspections?	YES	NO	N/A
b.	ground-water monitoring?	YES	NO	N/A
c.	maintaining cover?	YES	NO	N/A
d.	maintaining diversion structures?	YES	NO	N/A
e.	controlling erosion?	YES	NO	N/A
f.	maintaining vegetation?	YES	NO	N/A
g.	security requirements?	YES	NO	N/A
h.	leachate collection?	YES	NO	N/A
i.	gas collection?	YES	NO	N/A

5. Does the PARTIAL CLOSURE PLAN describe maintenance frequencies for partially closed areas, including:

a.	visual inspections?	YES	NO	N/A
b.	groundwater monitoring?	YES	NO	N/A
c.	maintaining the cover?	YES	NO	N/A
d.	maintaining diversion structures?	YES	NO	N/A
e.	controlling erosion?	YES	NO	N/A
f.	maintaining vegetation?	YES	NO	N/A
g.	security requirements?	YES	NO	N/A
h.	leachate collection?	YES	NO	N/A
i.	gas collection?	YES	NO	N/A

6. Is there a SCHEDULE FOR PARTIAL CLOSURE? YES NO
If "NO" SKIP TO SECTION V.

7. Does the SCHEDULE FOR PARTIAL CLOSURE include:

★ a.	date(s) of partial closure(s)? (40 CFR 265.112(a)(1))	YES	NO	
b.	total time required for each partial closure?	YES	NO	
c.	time required for key steps—			
i.	waste removal?	YES	NO	N/A
ii.	waste stabilization?	YES	NO	N/A
iii.	waste treatment?	YES	NO	N/A
iv.	waste disposal?	YES	NO	N/A
v.	placement of cover?	YES	NO	N/A
vi.	vegetation?	YES	NO	N/A
vii.	decontamination?	YES	NO	N/A
viii.	other (specify: _____)	YES	NO	

V. MAXIMUM INVENTORY

★ 1. Is there an estimate of the MAXIMUM INVENTORY of wastes in storage or treatment at any time during the life of the facility? (40 CFR 265.112(a)(2)) YES NO N/A

□ 2. Does the MAXIMUM INVENTORY estimate include the maximum amount of on-site wastes:

a.	requiring pre-treatment?	YES	NO	N/A
b.	requiring treatment?	YES	NO	N/A
c.	requiring disposal?	YES	NO	N/A

(Impoundment no longer in use)

☐	3. Does the MAXIMUM INVENTORY estimate include the maximum amount of on-site:			
☐	a. wastes in surface impoundments?	~~YES~~	NO	N/A
☐	b. wastes in partially-closed non-disposal surface impoundments?	~~YES~~	NO	N/A
☐	c. wastes in tanks?	YES	NO	~~N/A~~
☐	d. wastes in piles?	YES	NO	~~N/A~~
☐	e. wastes in drainage pits?	YES	NO	~~N/A~~
☐	f. wastes in containers?	YES	NO	~~N/A~~
☐	g. standing liquids?	~~YES~~	NO	N/A
☐	h. sludge?	~~YES~~	NO	N/A
☐	i. contaminated soil from land treatment fields?	YES	NO	~~N/A~~
☐	j. contaminated soil and liners from non-disposal impoundments?	~~YES~~	NO	N/A
☐	k. contaminated soil from around tanks, containers, piles?	~~YES~~	NO	N/A
☐	l. process residues?	~~YES~~	NO	N/A
☐	m. decontamination residues?	~~YES~~	NO	N/A
	4. Does the plan discuss the type(s) of TESTING AND CRITERIA to be used to determine:			
	a. whether soil is contaminated?	~~YES~~	NO	N/A
	b. whether decontamination residues are hazardous?	~~YES~~	NO	N/A
	c. whether process residues are hazardous?	~~YES~~	NO	N/A
	5. Are INCOMPATIBLE WASTES identified and provisions described for keeping them separate during closure?	YES	NO	~~N/A~~

VI. FINAL CLOSURE

No longer in use, Close as soon as possible

1. Does the plan clearly identify the STEPS TO CLOSE			
★ a. at any point during the intended operating life? (40 CFR 265.112(a))	~~YES~~	NO	
★ b. at the end of the intended operating life? (40 CFR 265.112(a))	~~YES~~	NO	

2. Do the STEPS TO CLOSE in the plan include:

★	a.	removal of wastes? (40 CFR 265.113(a))	YES	NO	N/A
★	b.	treatment of wastes? (40 CFR 265.113(a))	YES	NO	N/A
★	c.	waste disposal? (40 CFR 265.113(a))	YES	NO	N/A
	d.	waste containment?	YES	NO	N/A
★	e.	cover? (40 CFR 265.310(b))	YES	NO	N/A
★	f.	decontamination of equipment and structures? (40 CFR 265.112(a)(3))	YES	NO	N/A
	g.	groundwater monitoring?	YES	NO	N/A
★	h.	closure certification? (40 CFR 265.115)	YES	NO	
	i.	maintenance of leachate program?	YES	NO	N/A
	j.	maintenance of gas collection program?	YES	NO	N/A
	k.	security requirements?	YES	NO	N/A

□ 3. With respect to the REMOVAL, TREATMENT, OR DISPOSAL of waste, does the plan identify:

a.	the source and type of materials and equipment needed?	YES	NO	
b.	the amount of labor required?	YES	NO	
c.	the capacity, number, and location of trenches or cells needed?	YES	NO	N/A
d.	the area required for landspreading?	YES	NO	N/A

□ 4. Does the plan describe the CONTAINMENT of waste, including:

★	a.	placement of final cover: (40 CFR 265.280(c)(2); 265.310(a))			
★		i. characteristics of cover? (40 CFR 265.280(c)(2)(ii); 265.310(a)(5))	YES	NO	N/A
★		ii. design of cover including final surface contours? (40 CFR 265.280(c)(2)(ii); 265.310(a)(5))	YES	NO	N/A
		iii. installation procedures?	YES	NO	N/A
★	b.	drainage and diversion structures? (40 CFR 265.280(c)(3),(4))	YES	NO	N/A

c. vegetation program:

★	i. characteristics of vegetation? (40 CFR 265.280(c)(2)(ii); 265.310(a)(5))	YES	NO	N/A
	ii. soil preparation?	YES	NO	N/A
★	d. erosion control: (40 CFR 265.310(b)(3))			
	i. type of materials?	YES	NO	N/A
	ii. amount of materials?	YES	NO	N/A
★	e. For landfills, does the closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.310(b))			
	(1) Control of pollution migration from the facility via ground water, surface water, and air.	YES	NO	N/A
	(2) Control of surface water infiltration, including prevention of pooling.	YES	NO	N/A
	(3) Prevention of erosion.	YES	NO	N/A
★	f. For land treatment operations, does the closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.280(a))			
	(1) Control of migration of hazardous wastes and constituents into ground water.	YES	NO	N/A
	(2) Control of the release of contaminated run-off into surface water.	YES	NO	N/A
	(3) Control of the release of airborne particulate contaminants caused by wind erosion.	YES	NO	N/A
	(4) Protection of food chain crops.	YES	NO	N/A

★ g. For landfills and land treatment operations, does the closure plan include at least a narrative statement indicating that the following factors were considered in addressing the closure objectives? (40 CFR 265.280(b), 310(b))

(1) Type and amount of waste.	~~YES~~	NO	N/A
(2) Mobility and rate of migration.	~~YES~~	NO	N/A
(3) Site location, topography, and surrounding land use.	~~YES~~	NO	N/A
(4) Climate, including precipitation.	~~YES~~	NO	N/A
(5) Characteristics of the cover, including material, final surface contour, thickness, porosity, permeability, slope, vegetation.	YES	~~NO~~	N/A
(6) Geological and soil profiles and surface and subsurface hydrology.	~~YES~~	NO	N/A
(7) Unsaturated zone monitoring.	YES	~~NO~~	N/A
(8) Type, concentration, and depth of hazardous constituent migration as compared to background concentrations.	~~YES~~	NO	N/A

□ ★ 5. Does the plan describe the DECONTAMINATION (40 CFR 265.112(a)(3); 265.114) of facility equipment and structures, including:

a. a list of equipment, containers, and structures requiring disposal or decontamination?	~~YES~~	NO	N/A
b. decontamination procedures?	~~YES~~	NO	N/A
c. method of treatment or disposal of residues?	~~YES~~	NO	N/A
d. testing program?	~~YES~~	NO	N/A

□ 6. With respect to MONITORING, does the closure plan describe:

a. details of the groundwater monitoring program during closure?	YES	~~NO~~	N/A
b. soil testing and monitoring	~~YES~~	NO	N/A
c. maintenance of monitoring equipment during closure?	YES	~~NO~~	N/A
d. other (specify: _____	YES	NO	

★ 7. With respect to CERTIFICATION of closure (40 CFR 265.115), does the closure plan describe scheduled or estimated number of inspections? ~~YES~~ NO

□ 8. If a system for COLLECTING LEACHATE is present, does the closure plan:

a. describe leachate removal, treatment, and disposal during closure?	YES	NO	~~N/A~~
b. identify the approximate volume of leachate collected?	YES	NO	~~N/A~~
c. provide for maintenance of the leachate collection system during closure?	YES	NO	~~N/A~~

□ 9. If a GAS COLLECTION SYSTEM is required during operation, does the closure plan:

a. describe procedures for collecting gas during closure?	YES	NO	~~N/A~~
b. describe monitoring samples and analysis during closure?	YES	NO	~~N/A~~
c. maintenance of gas collection system during closure?	YES	NO	~~N/A~~

□ 10. If SECURITY (i.e., fencing) is required, does the closure plan:

a. describe the maintenance of security equipment during the closure period?	YES	~~NO~~	N/A
b. describe the installation of appropriate equipment at closure?	YES	~~NO~~	N/A
c. state the dimensions of the fence and the area to be enclosed?	YES	~~NO~~	N/A

VII. FINAL CLOSURE: SCHEDULE

★	1.	Does the plan identify the YEAR when final closure is expected to occur? (40 CFR 265.112(a)(4))	~~YES~~	NO	
		• What is the expected year of closure?	JAN 1985 (as soon as possible)		
★	2.	Is there a SCHEDULE for final closure activities? (40 CFR 265.112(a)(4))	~~YES~~	NO	
		IF "NO" SKIP TO COMMENTS SECTION.			
	3.	Does the SCHEDULE for final closure include:			
★		a. date closure is expected to begin? (40 CFR 265.112(a)(1))	~~YES~~	NO	
★		b. total time required to close? (40 CFR 265.112(a)(4))	~~YES~~	NO	
★		c. the time for intervening closure activities? (40 CFR 265.112(a)(4))	~~YES~~	NO	
		d. time required for key steps:			
★		i. waste inventory treatment? (40 CFR 265.112(a)(4))	~~YES~~	NO	N/A
★		ii. waste inventory disposal? (40 CFR 265.112(a)(4))	YES	NO	~~N/A~~
		iii. removal of waste inventory and residues?	~~YES~~	NO	N/A
		iv. decontamination of facility equipment and structures?	~~YES~~	NO	N/A
		v. install containment and diversion structures?	YES	NO	~~N/A~~
★		vi. placement of final cover? (40 CFR 265.112(a)(4))	YES	~~NO~~	N/A
		vii. planting vegetation?	YES	~~NO~~	N/A
		viii. closure certification?	~~YES~~	NO	
		ix. other (specify: _____	YES	NO	
	4.	Does the SCHEDULE for final closure:			
★		a. encompass more than 90 days for treatment, removal, or disposal of hazardous wastes after receipt of final volume of wastes? (40 CFR 265.113(a))	~~YES~~	NO	

★ b. encompass more than 180 days for completion of closure plan activities after receipt of final volume of wastes? (40 CFR 265.113(b)) YES NO

VIII. COMMENTS

1) THE PLAN NEVER ADDRESSED THE SECURITY CONSIDERATIONS DURING CLOSURE; HOWEVER, THE PRESENT KERR-MCGEE PLANT SECURITY THAT IS ALREADY IN EXISTANCE MAY BE ADEQUATE.

2) NO MENTION OF GROUNDWATER MONITORING DURING CLOSURE

3) THE INFORMATION ON FINAL COVER (i.e. TOP SOIL, VEGETATION, FINAL CONTOURS, ect.) WAS NOT ADEQUATE. MORE DETAIL IS NEEDED

POST-CLOSURE PLAN CHECKLIST

I. WRITTEN PLAN

★	1. Is there a written POST-CLOSURE PLAN at the facility? (40 CFR 265.118(a)) If answer is "N/A" skip to cost estimate checklists.	YES	NO	~~N/A~~
	2. Does the post-closure plan cover the MAXIMUM AREA EXPECTED TO CONTAIN HAZARDOUS WASTE after closure, including:			
	a. landfills?	YES	NO	N/A
	b. disposal surface impoundments?	YES	NO	N/A
	c. land treatment facilities where hazardous waste will remain?	YES	NO	N/A
	d. other remaining hazardous wastes?	YES	NO	N/A
★	3. Does the post-closure plan provide for 30 years of post-closure care? (40 CFR 265.117(a))	YES	NO	
	• How many years of post-closure care? _____			
	4. Does the post-closure plan cover all areas where hazardous waste will remain that were active as of 11/19/80?	YES	NO	

II. SPECIFIC POST-CLOSURE PLAN REQUIREMENTS

★	1. Does the plan clearly identify the ACTIVITIES required in post-closure care? (40 CFR 265.118(a))	YES	NO	
★	2. Does the plan clearly identify the FREQUENCIES for post-closure activities? See also Question 5. (40 CFR 265.118(a))	YES	NO	
★	3. Do the GROUNDWATER MONITORING plans (40 CFR 265.117(a)(1); 265.118(a)(1)) include:			
	a. number of wells?	YES	NO	
	b. sample collection activities?	YES	NO	
	c. sample collection frequencies?	YES	NO	
	d. sample test activities?	YES	NO	
	e. sample test frequencies?	YES	NO	
	f. replacement of failed wells?	YES	NO	N/A

	4.	Is there a copy of the GROUNDWATER SAMPLING AND ANALYSIS PROGRAM attached to the plan?	YES	NO	
★	5.	Do the MAINTENANCE PLANS for waste containment structures (40 CFR 265.118(a)(2)) include:			
		a. inspection activities?	YES	NO	
		b. inspection frequencies?	YES	NO	
		c. maintaining final cover (erosion damage repair) activities?	YES	NO	
★		d. maintaining final cover (erosion damage repair) frequencies? (40 CFR 265.310(d)(1))	YES	NO	
		e. vegetation and fertilizing activities?	YES	NO	
★		f. vegetation and fertilizing frequencies? (40 CFR 265.118(a)(2)(i))	YES	NO	
		g. mowing activities?	YES	NO	
		h. mowing frequencies?	YES	NO	
★		i. collecting, removing, and treating leachate activities? (40 CFR 265.310(d)(2))	YES	NO	N/A
★		j. collecting, removing, and treating leachate frequencies? (40 CFR 265.310(d)(2))	YES	NO	N/A
★		k. gas collection activities? (40 CFR 265.310(d)(3))	YES	NO	N/A
★		l. gas collection frequencies? (40 CFR 265.310(d)(3))	YES	NO	N/A
		m. collection and treatment of runoff?	YES	NO	
		n. frequencies of runoff collection and treatment?	YES	NO	
★	6.	Do MONITORING EQUIPMENT MAINTENANCE plans (40 CFR 265.118(a)(2)(ii)) include:			
★		a. activities? (40 CFR 265.118(a)(2)(ii))	YES	NO	
★		b. frequencies? (40 CFR 265.118(a)(2)(ii))	YES	NO	
	7.	Do SECURITY REQUIREMENT plans include:			
		a. activities?	YES	NO	
		b. frequencies?	YES	NO	
★	8.	Does the plan identify the name, address and phone number of the POST-CLOSURE PERIOD CONTACT? (40 CFR 265.118(a)(3))	YES	NO	

★ 9. For landfills, does the post-closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.310(b))

(1) Control of pollution migration via ground water, surface water, and air.	YES	NO	N/A
(2) Control of surface water infiltration, including prevention of pooling.	YES	NO	N/A
(3) Prevention of erosion.	YES	NO	N/A

★ 10. For land treatment operations, does the post-closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.280(a))

(1) Control of migration of hazardous wastes and constituents into the ground water.	YES	NO	N/A
(2) Control of the release of contaminated runoff into surface water.	YES	NO	N/A
(3) Control of the release of airborne particulate contaminants caused by wind erosion.	YES	NO	N/A
(4) Protection of food chain crops.	YES	NO	N/A

★ 11. For landfills and land treatment operations, does the post-closure plan include at least a narrative statement indicating that the following factors were considered in addressing the closure objectives? (40 CFR 265.280(b), 310(b))

(1) Type and amount of waste.	YES	NO	N/A
(2) Mobility and rate of migration.	YES	NO	N/A
(3) Site location, topography, and surrounding land use.	YES	NO	N/A
(4) Climate, including precipitation.	YES	NO	N/A

(5)	Characteristics of the cover, including material, final surface contour, thickness, porosity, permeability, slope, vegetation.	YES	NO	N/A
(6)	Geological and soil profiles and surface and subsurface hydrology.	YES	NO	N/A
(7)	Unsaturated zone monitoring.	YES	NO	N/A
(8)	Type, concentration, and depth of hazardous constituent migration as compared to background concentrations.	YES	NO	N/A

III. OTHER REQUIREMENTS

★ 1.	Does the plan address the requirement for notice to the local land authority? (40 CFR 265.119)	YES	NO	
★ 2.	Does the plan address the requirement for notice in the deed? (40 CFR 265.120)	YES	NO	
3.	Does the plan address the protection and maintenance of surveyed benchmarks?	YES	NO	N/A

IV. COMMENTS

ALTERNATIVE B, p. 12 Closure plan needs to developed.

WORKSHEET 3A1 FILL-IN QUANTITIES

HYPOTHETICAL MAXIMUM INVENTORY OF WASTES IN PLAN

Type of Waste	Grand Total (indicate units)	Facility Type #1* (Specify) Total (indicate units)	Facility Type #2* (Specify) Total (indicate units)	Facility Type #3 (Specify) Total (indicate units)
1. Maximum amount of undisposed waste requiring pre-treatment				
2. Maximum amount of waste resulting from pre-treatment				
3. Maximum amount of undisposed waste requiring treatment				
4. Maximum amount or waste resulting from treatment				
5. Maximum amount of undisposed waste in storage prior to disposal				
-- in tanks				
-- in surface impoundments				
-- in waste piles				
-- in drainage pits				
-- in containers				
-- standing liquids (not included in the estimates above)				
-- sludge (not included in the estimates above)				
-- liners				
-- leachate				
-- other (specify: _____)				
6. Maximum amount of contaminated soil				
-- in land treatment fields				
-- in non-disposal surface impoundments				
-- around tanks				
-- around containers				
-- around treatment facilities				
-- from facility decontamination (list only if not included in estimates above)				
7. Maximum amount of residues				
-- from treatment/disposal processes				
-- from facility decontamination				
GRAND TOTAL				

Use these columns to distinguish among different waste management operations. For example certain types of wastes may be stored in containers prior to incineration; other types may be stored in containers prior to being landfilled. To be sure that the closure plan has accounted for all containers, the columns may be used to collect subtotals. Where the plan omitted to count some category or the maximum inventory, please circle the line where the entry should go. Avoid double-counting.

WORKSHEET 1B

CLOSURE PLAN DESCRIPTION OF METHOD OF TREATMENT OR DISPOSAL OF MAXIMUM INVENTORY OF WASTES: CHECKLIST

Type of Waste	On-Site			Off-Site			
	Pre-Treatment Method Described?	Treatment Method Described?	Disposal Method Described?	Removal Method Described?	Treatment Method Identified?	Disposal Method Identified?	TSDF Identified?
1. Waste in storage							
-- in tanks							
-- in surface impoundments							
-- in waste piles							
-- in drainage pits							
-- in containers							
-- standing liquids (not included in estimates above)							
-- sludge (not included in estimates above)							
-- liner							
-- leachate							
-- other (specify: _____)							
2. Contaminated soil							
-- in land treatment fields							
-- in non-disposal surface impoundments							
-- around tanks							
-- around containers							
-- around treatment facilities							
- from facility decontamination (list only if not included in estimates above)							
3. Residues							
-- from treatment/disposal processes							
-- from facility decontamination							

WORKSHEET 1C: FILL-IN QUANTITIES

PLAN FOR REMOVAL, TREATMENT, OR DISPOSAL OF MAXIMUM WASTE INVENTORY

Type of Waste	GRAND TOTAL (Specify) (indicate units)				FROM FACILITY TYPE #1* (Specify) (indicate units)				FROM FACILITY TYPE #2* (Specify) (indicate units)			
	On-Site		Off-Site		On-Site		Off-Site		On-Site		Off Site	
	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal
1. Maximum amount of undisposed waste requiring pre-treatment												
2. Maximum amount of waste resulting from pre-treatment												
3. Maximum amount of undisposed waste requiring treatment												
4. Maximum amount of waste resulting from treatment												
5. Maximum amount of undisposed waste in storage prior to disposal												
-- in tanks												
-- in surface impoundments												
-- in waste piles												
-- in drainage pits												
-- in containers												
-- standing liquids (not included in the estimates above)												
-- sludge (not included in the estimates above)												
-- liners												
-- leachate												
-- other (specify: _____)												

WORKSHEET 1C: FILL IN QUANTITIES

PLAN FOR REMOVAL, TREATMENT, OR DISPOSAL OF MAXIMUM WASTE INVENTORY

Type of Waste	GRAND TOTAL (Specify) (indicate units)				FROM FACILITY TYPE 1* (Specify) (indicate units)				FROM FACILITY TYPE 2* (Specify) (indicate units)			
	On-Site		Off Site		On-Site		Off-Site		On-Site		Off-Site	
	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal	Treatment	Disposal
6. Maximum amount of contaminated soil												
-- in land treatment fields												
-- in non-disposal surface impoundments												
-- around tanks												
-- around containers												
-- around treatment facilities												
-- from facility decontamination (list only if not included in estimates above)												
7. Maximum amount of residues												
-- from treatment/disposal processes												
-- from facility decontamination												
GRAND TOTAL												

2000-0356
9/30/83

GENERAL COST ESTIMATE CHECKLIST

A. Closure Cost Estimate

★ 1. Is there a written closure cost estimate? (40 CFR 265.142(a)) — ~~YES~~ NO

2. What is the amount of the closure cost estimate? — $ 110,000

3. Is there documentation supporting the cost estimate? — ~~YES~~ NO

   a. Work-ups? — ~~YES~~ NO
   b. Contractor bids? — YES ~~NO~~
   c. Operating history? — ~~YES~~ NO
   d. Other _____ — YES NO

★ 4. Has the cost estimate been adjusted by the 9% inflation factor? (40 CFR 265.142(b)) — YES NO ~~N/A~~

5. Does the cost estimate cover all the activities in the closure plan including costs of labor? — ~~YES~~ NO

★ 6. Does the closure cost estimate cover all required closure activities? (40 CFR 265.142(a)) — YES ~~NO~~
If "NO" specify in comments below.

Comments: AS STATED EARLIER, GROUNDWATER MONITORING DURING CLOSURE & FINAL COVER (TOPSOIL & SEEDING) NEEDS TO BE INCLUDED.

B. Post-Closure Cost Estimate

★ 1. Is there a written post-closure cost estimate? (40 CFR 265.144(a)) YES NO ~~N/A~~

2. What is the amount of the estimate? $ _____

3. Is there documentation supporting the post-closure cost estimate? YES NO

a. Work-ups? YES NO
b. Contractor bids? YES NO
c. Operating history? YES NO
d. Other _____ YES NO

★ 4. Is the annual estimate multiplied by 30 to cover to entire post-closure care period? (40 CFR 265.144(b)) YES NO

★ 5. Has the cost estimate been adjusted by the 9% inflation factor? (40 CFR 265.144(b)) YES NO N/A

★ 6. Does the cost estimate cover all the activities in the post-closure plan (40 CFR 265.118)? YES NO

Including labor costs? YES NO

★ As well as the requirements of notice to local land authorities and in deeds? (40 CFR 265.119, 265.120) YES NO

★ 7. Does the post-closure cost estimate cover all required post-closure activities? (40 CFR 265.144(a)) YES NO
If "NO" specify in comments below.

Comments: _____

_____

_____

_____

_____

_____

CLOSURE COST ESTIMATE VERIFICATION

Does Not Apply	Applies	
	In-cluded	Not In-cluded
/		

(40 CFR 265.112(a)(2))

★

1. TREATING, DISPOSING OR REMOVING INVENTORY

A. On Site

a. Amount of inventory and residues* to be disposed on site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. From visual inspection _____

b. Unit cost for on site treatment or disposal ($/yd^3$)
   i. From cost estimate _____

c. Total cost of on site treatment or disposal ($)
   i. From cost estimate _____

	/	

B. Off Site

a. Amount of inventory and residues to be disposed off site (yd^3)
   i. From cost estimate _____
   ii. From closure plan 305 yd^3
□ iii. From visual inspection _____

b. Unit cost for off site treatment or disposal ($/yd^3$)
   i. From cost estimate _____

c. Total cost for off-site disposal excluding transportation
   i. From cost estimate 18,000

*Residues here refer to residues existing at initiation of closure.

Does Not Apply	Applies	
	Included	Not Included

d. Unit cost for transport of inventory ($/yd³/mile)
   i. From cost estimate — $310/20 ton load

e. Transport distance (miles)
   i. From cost estimate
   ii. By map reference

f. Cost of transport ($)
   i. From cost estimate

g. Cost of off site treatment or disposal including transport ($)
   i. From cost estimate
   ii. Inspector calculation

	X	

C. Total Cost of Treating, Disposing or Removing Inventory ($)

a. From cost estimate

	X	

2. DECONTAMINATION

A. Soil Excavation

(40 CFR 265.280(c)(1))

a. Volume of soil to be removed (yd³)
   i. From cost estimate
   ii. From closure plan — 305 yd³
   ☐ iii. Inspector's estimate

b. Unit cost for soil excavation ($/yd³)
   i. From cost estimate

c. Total cost of contaminated soil excavation ($)
   i. From cost estimate

Does Not Apply	Applies: Included	Applies: Not Included
	X	

B. Wastewater Removal

a. Volume of wastewater to be removed (yd^3)
   i. From cost estimate
   ii. From closure plan 255 yd^3
☐ iii. Inspector's estimate

b. Unit cost for wastewater removal ($/$yd^3$)
   i. From cost estimate

c. Total cost of wastewater removal ($)
   i. From cost estimate

X		

C. On Site Treatment or Disposal of Contaminated Soil, Wastewater and Residues Generated During Decontamination

a. Volume of soil, wastewater and residues to be treated/disposed on site (yd^3)
   i. From cost estimate
   ii. From closure plan
☐ iii. Inspector's estimate

b. Unit cost for treatment/disposal ($/$yd^3$)
   i. From cost estimate

c. Cost of on site treatment/disposal ($)
   i. From cost estimate

X		

D. Off Site Treatment or Disposal of Contaminated Soil, Wastewater and Residues Generated During Decontamination

a. Volume of soil, wastewater and residues to be treated/disposed off site (yd^3)
   i. From cost estimate
   ii. From closure plan
☐ iii. From visual inspection

Does Not Apply	Applies	
	Included	Not Included

b. Unit cost for off site treatment/ disposal ($/yd³)
   i. From cost estimate _____

c. Cost of off site treatment/disposal ($) excluding transportation
   i. From cost estimate _____

d. Unit cost for transport ($/yd³/mile)
   i. From cost estimate _____

e. Transport distance (miles)
   i. From cost estimate _____
   ii. By map reference _____

f. Cost of transport ($)
   i. From cost estimate _____

g. Total cost of off site treatment or disposal including transport ($)
   i. From cost estimate _____

	X	

(40 CFR 265.112(a)(3))

★

E. Equipment Decontamination

a. Amount of equipment to be decontaminated (tons)
   i. From cost estimate _____
   ii. From closure plan _____
☐ iii. Inspector's estimate _____

b. Unit cost for equipment decontamination ($/ton)
   i. From cost estimate _____

c. Cost of equipment decontamination ($)
   i. From cost estimate 1000

	X	

F. Total Cost of Decontamination ($)

a. From cost estimate 1000

Does Not Apply	Applies	
	Included	Not Included

	X	

3. CERTIFICATION

(40 CFR 265.115)

★

A. Professional Engineer Hours (hrs)

a. From cost estimate
b. From closure plan — 3
☐ c. Inspector's estimate

B. Unit Cost for Professional Engineer* ($/hr.)

a. From cost estimate — 1000 / visi

	X	

C. Total Certification Cost ($)

a. From cost estimate — 3000

	X	

4. COVER

(40 CFR 265.112(a)(4); 265.280(c)(2))

★

A. Cover Material**

a. Area to be covered (yd^2)
i. From cost estimate
ii. From closure plan
☐ iii. From visual inspection

b. Depth of cover material (yd)
i. From cost estimate
ii. From closure plan
☐ iii. Inspector's estimate

*Loaded with costs for support personnel.

**Includes materials to be used for cover, for example gravel or clay, except for top-soil.

Does Not Apply	Applies	
	Included	Not Included

c. Volume of material to be obtained on site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

d. Volume of material to be obtained off site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

e. Unit cost of excavating material on site ($/$yd^3$)
   i. From cost estimate _____

f. Unit cost of purchasing material off site ($/$yd^3$)
   i. From cost estimate _____

g. Unit cost of transporting material ($/$yd^3$/mile)
   i. From cost estimate _____

h. Transport distance (miles)
   i. From cost estimate _____
   ii. By map reference _____

i. Transport cost ($)
   i. From cost estimate _____

j. Total cost of acquiring material ($)
   i. From cost estimate _____

k. Unit cost of spreading and compacting material ($/$yd^3$)
   i. From cost estimate _____

l. Cost of spreading and compacting material ($)
   i. From cost estimate _____

m. Total cost of acquiring and placing material ($)
   i. From cost estimate _____

Does Not Apply	Applies	
	Included	Not Included
		X

B. Top-soil

a. Area to be covered (yd^2)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. From visual inspection _____

b. Depth of top-soil, allowing for appropriate grading (yd)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

c. Volume of top-soil to be obtained on site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

d. Volume of top-soil to be obtained off site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

e. Unit cost of excavating top-soil on site ($/yd^3$)
   i. From cost estimate _____

f. Unit cost of purchasing top-soil off site ($/yd^3$)
   i. From cost estimate _____

g. Unit cost of transporting top-soil ($/yd^3$/mile)
   i. From cost estimate _____

h. Transport distance (miles)
   i. From cost estimate _____
   ii. By map reference _____

Does Not Apply	Applies	
	Included	Not Included

i. Transport cost ($)
   i. From cost estimate _____

j. Total cost of acquiring top-soil ($)
   i. From cost estimate _____

k. Unit cost of spreading and compacting top-soil ($/yd^3)
   i. From cost estimate _____

l. Cost of spreading and compacting top-soil ($)
   i. From cost estimate _____

m. Total cost of acquiring and placing top-soil ($)
   i. From cost estimate _____

X		

C. Synthetic Liner and Buffer Material

a. Area to be covered (yd^2)
   i. From cost estimate _____
   ii. From closure plan _____
☐ iii. From visual inspection _____

b. Depth of sand* buffer (yd)
   i. From cost estimate _____
   ii. From closure plan _____
☐ iii. Inspector's estimate _____

c. Volume of sand to be obtained on site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
☐ iii. Inspector's estimate _____

*Includes other materials (other than clay and top-soil) which may be used along with the synthetic liner.

Does Not Apply	Applies	
	Included	Not Included

d. Volume of sand to be obtained off site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

e. Unit cost of excavating sand on site ($/$yd^3$)
   i. From cost estimate _____

f. Unit cost of purchasing sand off site ($/$yd^3$)
   i. From cost estimate _____

g. Unit cost of transporting sand ($/$yd^3$/mile)
   i. From cost estimate _____

h. Transport distance (miles)
   i. From cost estimate _____
   ii. By map reference _____

j. Total cost of acquiring sand ($)
   i. From cost estimate _____

k. Unit cost of spreading and compacting sand ($/$yd^3$)
   i. From cost estimate _____

l. Cost of spreading and compacting sand ($)
   i. From cost estimate _____

m. Total cost of acquiring and placing sand ($)
   i. From cost estimate _____

n. Unit cost of acquiring and installing synthetic liner ($/$yd^2$)
   i. From cost estimate _____

o. Cost of acquiring and installing synthetic liner ($)
   i. From cost estimate _____

p. Unit cost of acquiring and installing synthetic liner and buffer materials ($/$yd^2$)
   i. From cost estimate _____

Does Not Apply	Applies	
	Included	Not Included

q. Total cost of acquiring and installing synthetic liner and buffer materials ($)
   i. From cost estimate _____

	X	

D. Total Cover Cost

a. Unit cost of cover ($/yd²)
   i. From cost estimate _____

b. Total cost of cover ($)
   i. From cost estimate _____

		X

5. Vegetation

(40 CFR 265.280(c)(2)(ii))

A. Area in Need of Vegetation (yd²)
   a. From cost estimate _____
   b. From closure plan _____
   ☐ c. From visual inspection _____

B. Unit Cost for Acquiring and Placing Seed, Fertilizer, Etc. ($/yd²)
   a. From cost estimate _____

C. Total cost of Acquiring and Placing Seed, Fertilizer, Etc. ($)
   a. From cost estimate _____

6. Other (from cost estimate) ($) _____

_____ (specify) $ _____

_____ (specify) $ _____

7. Total Closure Costs ($) _____

A. From cost estimate $ 110,000

COMMENTS

SEE COMMENTS ON P. 21

POST-CLOSURE COST ESTIMATE VERIFICATION

Does Not Apply	Applies	
	Included	Not Included

1. INSPECTION/FACILITY VISITS

A. Total hours of professional level personnel (hrs/year)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. Inspector's estimate _____

B. Unit cost for professional level personnel*($/hr)
   a. From cost estimate _____

C. Total inspection/facility visit cost ($/year)
   a. From cost estimate _____

2. REESTABLISHING FINAL COVER AND VEGETATION

(40 CFR 265.118(a)(2)(i); 265.310(d)(1))

A. Area involved (yd^2)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. From visual inspection _____

★

B. Unit cost for reestablishing cover and vegetation ($/$yd^2$)
   a. From cost estimate _____

C. Reestablishing cover and vegetation cost ($/year)
   a. From cost estimate _____

*Loaded with costs for support personnel.

Does Not Apply	Applies	
	Included	Not Included

3. FERTILIZING

A. Area involved (yd^2)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. From visual inspection _____

B. Unit cost for fertilizing ($/$yd^2$)
   a. From cost estimate _____

C. Total fertilizing cost ($/year)
   a. From cost estimate _____

4. MOWING

A. Area involved (yd^2)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. From visual inspection _____

B. Unit cost for mowing ($/$yd^2$)
   a. From cost estimate _____

C. Mowing cost ($/year)
   a. From cost estimate _____

5. GROUNDWATER MONITORING AND WELL REPLACEMENT

(40 CFR 265.117(a)(1))

A. Groundwater Monitoring

★

   a. Number of wells
      i. From cost estimate _____
      ii. From post-closure plan _____
☐   iii. From visual inspection _____

Does Not Apply	Applies	
	Included	Not Included

b. Unit cost for groundwater monitoring ($/well/year)
   i. From cost estimate _____

c. Groundwater monitoring cost ($/year)
   i. From cost estimate _____

B. Well Replacement

a. Average annual number of well replacements
   i. From cost estimate _____
   ii. From post-closure plan _____
☐ iii. Inspector's estimate _____

b. Unit cost for well replacement ($/replacement)
   i. From cost estimate _____

c. Cost for well replacement ($/year)
   i. From cost estimate _____

C. Total groundwater monitoring and well replacement cost ($/year)*
   a. From cost estimate _____

6. MAINTAINING AND REPLACING FENCES

(40 CFR 265.117(b); 265.14(b)(2)(i))

A. Maintaining Fences

a. Length of fence required (yd)
   i. From cost estimate _____
   ii. From post-closure plan _____
☐ iii. From visual inspection _____

*Note in comment section whether well replacement component is on annual basis or not.

Does Not Apply	Applies	
	Included	Not Included

b. Unit cost for maintaining fences ($/yd)
   i. From cost estimate _____

c. Cost for maintaining fences ($/year)
   i. From cost estimate _____

B. Replacing Fences

a. Length of fence to be replaced annually* (yd)
   i. From cost estimate _____
   ii. From post-closure plan _____
□ iii. Inspector's estimate _____

b. Unit cost for fence replacement ($/yd)
   i. From cost estimate _____

c. Cost of fence replacement ($/year)
   i. From cost estimate _____

C. Total Maintaining and Replacing Fences Cost ($/year)**

a. From cost estimate _____

7. COLLECTING, REMOVING AND TREATING LEACHATE

A. Amount of leachate collected (gal./year)

a. From cost estimate _____
b. From post-closure plan _____

(40 CFR 265.310(d)(2))

★

*Total length of fence to be replaced over the entire post-closure period divided by 30 to obtain an annual average.

**Note in comment section whether fence replacement component is on annual basis or not.

Does Not Apply	Applies	
	Included	Not Included

B. Off Site Disposal

a. Amount of leachate removed to off site disposal facility (gal./year)
   i. From cost estimate _____
   ii. From post-closure plan _____

b. Unit cost for off site leachate disposal ($/gal.)
   i. From cost estimate _____

c. Unit cost for transport of leachate ($/gal./mile)
   i. From cost estimate. _____

d. Transport distance (miles)
   i. From cost estimate _____
   ii. From post-closure plan _____
   iii. By map reference _____

e. Cost of transport ($/year)
   i. From cost estimate _____

f. Total cost of off-site treatment/ disposal of leachate ($/year)
   i. From cost estimate _____

C. On Site Disposal

a. Amount of leachate disposed of on-site (gal.)
   i. From cost estimate _____
   ii. From post-closure plan _____

b. Unit cost of on site leachate disposal ($/gal.)
   i. From cost estimate _____

c. Cost of on-site leachate disposal ($/year)
   i. From cost estimate _____

Does Not Apply	Applies	
	Included	Not Included

D. Total Collecting, Removing, Treating and Disposal of Leachate Cost ($)
   a. From cost estimate _____

8. Administrative

A. Hours of management time required to administer the post-closure plan (hrs/year)
   a. From cost estimate _____
   b. From post-closure plan _____
   c. Inspector's estimate _____

B. Unit cost for management time* ($/hr)
   a. From cost estimate _____

C. Total administrative cost ($/year)
   a. From cost estimate _____

9. Other (specify) ($/year) _____

(40 CFR 265.119) ★
(40 CFR 265.120) ★

A. Local land authority notice ($/year) _____
B. Notice in deed ($/year) _____
C. _____ _____
D. _____ _____
E. _____ _____
(Total Other) _____

10. Total Annual Post-Closure Costs ($) _____

a. From cost estimate _____

*Loaded with costs for support personnel.

COMMENTS

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Kerr-McGee
LOCATION Columbus Ms.
DATE 6/25/85
INSPECTORS Don McCraw

Met with Bob Boisseau - Plant Superintendant

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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 haardous 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.	✓			No changes in waste stream. Results in file, 8/27/80.
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:				Plant is fenced with gates.
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.				

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	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				Daily inspections made of signs, fence, etc.
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.	✓			Daily inspections conducted Fences signs Fire hoses Silos erosion Leaks overflow freeboard Impoundment
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.	✓			Inspections are recent.

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	COMMENTS
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.		✓		Plant manager indicated there was no time to perform annual training.
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 in compliance - No
Not applicable - NA

REQUIREMENT.	Yes	No	N/A	COMMENTS
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 waste 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.			✓	

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

REQUIREMENT	Yes	No	N/A	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: a) releases, fires, explosions b) groundwater contamination c) facility closure.			✓	

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.	✓			

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.	✓			

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

REQUIREMENT	Yes	No	N/A	COMMENTS
265.117(a) Post closure care must consist of at least:				
1) Groundwater monitoring			✓	ASSUMPTION THAT facility will CLEAN CLOSE
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.	✓			Updated March 1985. OK
SUBPART I - OTHER FACILITY STANDARDS				
265.170 - 265.172 The container must be compatible with the waste to be stored.			✓	

REQUIREMENT	Not in compliance - No Not applicable - NA 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.				
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.				

Not in compliance - NO
Not applicable - NA

REQUIREMENT	Yes	No	N/A	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.	✓			

REQUIREMENT	Not in compliance - NO	Not applicable - NA		COMMENTS
	Yes	No	N/A	
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 in compliance - No
Not applicable - NA

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

REQUIREMENT	Yes	No	N/A	COMMENTS
265.281 Ignitable or reactive waste must not be placed in a land treatment facility unless 265.281 is complied with.				
265.282 Incompatible wastes 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.				
265.313 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	Yes	No	N/A	COMMENTS
			Not applicable - NA	
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				

REQUIREMENT	Not applicable - NA			COMMENTS
	Yes	No	N/A	
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.				

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	COMMENTS
Other questions or standards.				
Are there any other generators transporting their waste to this hazardous waste management facility?		✓		

2000-0356
9/30/83

CLOSURE AND POST-CLOSURE COMPLIANCE REVIEW CHECKLIST

I. GENERAL FACILITY INFORMATION

EPA ID # MSD 990 866 329

Address Kerr McGee

Columbus

Owner _____
(name and phone number)

Operator _____
(name and phone number)

Name of Facility _____

Date & Time of Inspection _____

Personnel Present _____

Review performed in office as a result of 6/11/84 submittal.

Notes:

J. Hamm
@ 7/12/84.

Type of Facility (check all that apply/fill-in blanks)

☐* ✓ Storage ____ Treatment ____ Disposal

			Active	Inactive	Planned
☐	____	Containers		(number and volume)	
☐	____	Tanks		(number and volume)	
☐	____	Piles		(number and volume)	
☐	____	Incinerator		(gallons or tons per hour)	
☐	____	Landfill		(acres and volume)	
☐	____	*Land Treatment		(acres and volume)	
☐	✓	Surface Impoundment	See Part A.	(acres and volume)	
☐	____	Chemical/Physical/ Biological Treatment		(gallons or tons per hour)	
☐	____	Thermal Treatment		(gallons or tons per hour)	
☐	____	Underground Injection		(nominal operating rate)	

Describe tank and container conditions (e.g., age, remaining surface life, etc.) in Comments section.

*Checkboxes indicate items to be reviewed during on-site visit.

II. WRITTEN PLAN

★ 1. Is there a WRITTEN CLOSURE PLAN kept at the facility? (40 CFR 265.112(a)) — YES / NO

2. Does the closure plan cover all areas and facilities that were ACTIVE as of 11/19/80? — YES / NO

3. Does the closure plan include general information about the facility which would be helpful in reviewing the plan, including:

a.	facility size(s)	YES	NO	
b.	facility type(s)	YES	NO	
c.	descriptions of all on-site equipment	YES	NO	
d.	topography	YES	NO	
e.	waste characterization	YES	NO	
f.	soil type	YES	NO	
g.	description of surrounding land use	YES	NO	
h.	surrounding population	YES	NO	
i.	size of facility (acres)	YES	NO	
j.	volume of impoundment	YES	NO	N/A
k.	type(s) of treatment/processing	YES	NO	N/A
l.	description of liner	YES	NO	N/A
m.	leachate collection system	YES	NO	N/A
n.	gas collection system	YES	NO	N/A
o.	dredging procedures/schedules, etc.	YES	NO	N/A
p.	incinerator specifications	YES	NO	N/A
q.	other (specify _____)	YES	NO	

III. MAXIMUM EXTENT OF OPERATION

★ 1. Does the plan identify the MAXIMUM EXTENT OF OPERATION which will be unclosed during the life of the facility? (40 CFR 265.112(a)(1)) — YES / NO

□ 2. Is the MAXIMUM EXTENT OF OPERATION estimate exceeded by current operations? — YES / NO

□ 3. Does the MAXIMUM EXTENT OF OPERATION estimate include:

a.	the maximum area of landfill or land treatment ever containing wastes?	YES	NO	N/A
b.	inactive areas open because of operating problems or contingencies?	YES	NO	N/A
c.	maximum area of land ever used for land spreading?	YES	NO	N/A

d. the most extensive treatment required for land spreading?	YES	NO	N/A
e. the maximum area used for storage?	YES	NO	N/A

Explain each "NO" answer in comment section.

IV. PARTIAL CLOSURE

★ 1. Does the plan identify the steps for PARTIAL CLOSURE, at any time during the intended operating life, of

a. surface impoundments?	YES	NO	N/A
b. landfills?	YES	NO	N/A
c. tanks?	YES	NO	N/A
d. other (specify: _____)	YES	NO	

(40 CFR 265.112(a))

IF NO PARTIAL CLOSURE PLAN, CIRCLE N/A AND SKIP TO SECTION V.

2. Does the PARTIAL CLOSURE plan identify

a. the size of areas partially closed?	YES	NO	N/A
b. procedures for partial closure?	YES	NO	
c. maintenance program?	YES	NO	
d. frequency of partial closures?	YES	NO	
e. source of cover materials?	YES	NO	N/A

□ 3. Does the plan for PARTIAL CLOSURE demonstrate the adequacy of the cap, etc. to meet the closure requirements? YES NO

OR

Are these areas or activities otherwise included in the extent of operations of the closure plan? YES NO

4. Does the PARTIAL CLOSURE PLAN describe maintenance <u>activities</u> for partially closed areas, including:

a. visual inspections?	YES	NO	N/A
b. ground-water monitoring?	YES	NO	N/A
c. maintaining cover?	YES	NO	N/A
d. maintaining diversion structures?	YES	NO	N/A
e. controlling erosion?	YES	NO	N/A
f. maintaining vegetation?	YES	NO	N/A
g. security requirements?	YES	NO	N/A
h. leachate collection?	YES	NO	N/A
i. gas collection?	YES	NO	N/A

5. Does the PARTIAL CLOSURE PLAN describe maintenance <u>frequencies</u> for partially closed areas, including:

a.	visual inspections?	YES	NO	N/A
b.	groundwater monitoring?	YES	NO	N/A
c.	maintaining the cover?	YES	NO	N/A
d.	maintaining diversion structures?	YES	NO	N/A
e.	controlling erosion?	YES	NO	N/A
f.	maintaining vegetation?	YES	NO	N/A
g.	security requirements?	YES	NO	N/A
h.	leachate collection?	YES	NO	N/A
i.	gas collection?	YES	NO	N/A

6. Is there a SCHEDULE FOR PARTIAL CLOSURE? YES NO
If "NO" SKIP TO SECTION V.

7. Does the SCHEDULE FOR PARTIAL CLOSURE include:

★ a.	date(s) of partial closure(s)? (40 CFR 265.112(a)(1))	YES	NO	
b.	total time required for each partial closure?	YES	NO	
c.	time required for key steps--			
i.	waste removal?	YES	NO	N/A
ii.	waste stabilization?	YES	NO	N/A
iii.	waste treatment?	YES	NO	N/A
iv.	waste disposal?	YES	NO	N/A
v.	placement of cover?	YES	NO	N/A
vi.	vegetation?	YES	NO	N/A
vii.	decontamination?	YES	NO	N/A
viii.	other (specify: _____)	YES	NO	

V. <u>MAXIMUM INVENTORY</u>

★ 1. Is there an estimate of the MAXIMUM INVENTORY of wastes in storage or treatment at any time during the life of the facility? (40 CFR 265.112(a)(2)) YES NO N/A

□ 2. Does the MAXIMUM INVENTORY estimate include the maximum amount of on-site wastes:

a.	requiring pre-treatment?	YES	NO	N/A
b.	requiring treatment?	YES	NO	N/A
c.	requiring disposal?	YES	NO	N/A

☐ 3. Does the MAXIMUM INVENTORY estimate include the maximum amount of on-site:

☐	a. wastes in surface impoundments?	YES	NO	N/A
☐	b. wastes in partially-closed non-disposal surface impoundments?	YES	NO	N/A
☐	c. wastes in tanks?	YES	NO	N/A
☐	d. wastes in piles?	YES	NO	N/A
☐	e. wastes in drainage pits?	YES	NO	N/A
☐	f. wastes in containers?	YES	NO	N/A
☐	g. standing liquids?	YES	NO	N/A
☐	h. sludge?	YES	NO	N/A
☐	i. contaminated soil from land treatment fields?	YES	NO	N/A
☐	j. contaminated soil and liners from non-disposal impoundments?	YES	NO	N/A
☐	k. contaminated soil from around tanks, containers, piles?	YES	NO	N/A
☐	l. process residues?	YES	NO	N/A
☐	m. decontamination residues?	YES	NO	N/A

4. Does the plan discuss the type(s) of TESTING AND CRITERIA to be used to determine:

	a. whether soil is contaminated?	YES	NO	N/A
	b. whether decontamination residues are hazardous?	YES	NO	N/A
	c. whether process residues are hazardous?	YES	NO	N/A

5. Are INCOMPATIBLE WASTES identified and provisions described for keeping them separate during closure? YES NO N/A

VI. FINAL CLOSURE

1. Does the plan clearly identify the STEPS TO CLOSE

★	a. at any point during the intended operating life? (40 CFR 265.112(a))	YES	NO
★	b. at the end of the intended operating life? (40 CFR 265.112(a))	YES	NO

2. Do the STEPS TO CLOSE in the plan include:

★	a.	removal of wastes? (40 CFR 265.113(a))	YES	NO	N/A
★	b.	treatment of wastes? (40 CFR 265.113(a))	YES	NO	N/A
★	c.	waste disposal? (40 CFR 265.113(a))	YES	NO	N/A
	d.	waste containment?	YES	NO	N/A
★	e.	cover? (40 CFR 265.310(b))	YES	NO	N/A
★	f.	decontamination of equipment and structures? (40 CFR 265.112(a)(3))	YES	NO	N/A
	g.	groundwater monitoring?	YES	NO	N/A
★	h.	closure certification? (40 CFR 265.115)	YES	NO	
	i.	maintenance of leachate program?	YES	NO	N/A
	j.	maintenance of gas collection program?	YES	NO	N/A
	k.	security requirements?	YES	NO	N/A

☐ 3. With respect to the REMOVAL, TREATMENT, OR DISPOSAL of waste, does the plan identify:

	a.	the source and type of materials and equipment needed?	YES	NO	
	b.	the amount of labor required?	YES	NO	
	c.	the capacity, number, and location of trenches or cells needed?	YES	NO	N/A
	d.	the area required for landspreading?	YES	NO	N/A

☐ 4. Does the plan describe the CONTAINMENT of waste, including:

★	a.	placement of final cover: (40 CFR 265.280(c)(2); 265.310(a))			
★		i. characteristics of cover? (40 CFR 265.280(c)(2)(ii); 265.310(a)(5))	YES	NO	N/A
★		ii. design of cover including final surface contours? (40 CFR 265.280(c)(2)(ii); 265.310(a)(5))	YES	NO	N/A
		iii. installation procedures?	YES	NO	N/A
★	b.	drainage and diversion structures? (40 CFR 265.280(c)(3),(4))	YES	NO	N/A

All waste to be removed ←
therefore, although preparing final cover, not a
Layardous waste impoundment after closure ~
not closing as a landfill

c. vegetation program:

★	i. characteristics of vegetation? (40 CFR 265.280(c)(2)(ii); 265.310(a)(5))	YES	NO	N/A
	ii. soil preparation?	YES	NO	N/A
★	d. erosion control: (40 CFR 265.310(b)(3))			
	i. type of materials?	YES	NO	N/A
	ii. amount of materials?	YES	NO	N/A
★	e. For landfills, does the closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.310(b))			
	(1) Control of pollution migration from the facility via ground water, surface water, and air.	YES	NO	N/A
	(2) Control of surface water infiltration, including prevention of pooling.	YES	NO	N/A
	(3) Prevention of erosion.	YES	NO	N/A
★	f. For land treatment operations, does the closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.280(a))			
	(1) Control of migration of hazardous wastes and constituents into ground water.	YES	NO	N/A
	(2) Control of the release of contaminated run-off into surface water.	YES	NO	N/A
	(3) Control of the release of airborne particulate contaminants caused by wind erosion.	YES	NO	N/A
	(4) Protection of food chain crops.	YES	NO	N/A

★ g. For landfills and land treatment operations, does the closure plan include at least a narrative statement indicating that the following factors were considered in addressing the closure objectives? (40 CFR 265.280(b), 310(b))

(1) Type and amount of waste.	YES	NO	N/A
(2) Mobility and rate of migration.	YES	NO	N/A
(3) Site location, topography, and surrounding land use.	YES	NO	N/A
(4) Climate, including precipitation.	YES	NO	N/A
(5) Characteristics of the cover, including material, final surface contour, thickness, porosity, permeability, slope, vegetation.	YES	NO	N/A
(6) Geological and soil profiles and surface and subsurface hydrology.	YES	NO	N/A
(7) Unsaturated zone monitoring.	YES	NO	N/A
(8) Type, concentration, and depth of hazardous constituent migration as compared to background concentrations.	YES	NO	N/A

☐ ★ 5. Does the plan describe the DECONTAMINATION (40 CFR 265.112(a)(3); 265.114) of facility equipment and structures, including:

a. a list of equipment, containers, and structures requiring disposal or decontamination?	YES	NO	N/A
b. decontamination procedures?	YES	NO	N/A
c. method of treatment or disposal of residues?	YES	NO	N/A
d. testing program?	YES	NO	N/A

□ 6. With respect to MONITORING, does the closure plan describe:

a. details of the groundwater monitoring program during closure?	YES	NO	N/A
b. soil testing and monitoring	YES	NO	N/A
c. maintenance of monitoring equipment during closure?	YES	NO	N/A
d. other (specify: propose post closure groundwater as contingency.)	YES	NO	

★ 7. With respect to CERTIFICATION of closure (40 CFR 265.115), does the closure plan describe scheduled or estimated number of inspections? YES NO

□ 8. If a system for COLLECTING LEACHATE is present, does the closure plan:

a. describe leachate removal, treatment, and disposal during closure?	YES	NO	N/A
b. identify the approximate volume of leachate collected?	YES	NO	N/A
c. provide for maintenance of the leachate collection system during closure?	YES	NO	N/A

□ 9. If a GAS COLLECTION SYSTEM is required during operation, does the closure plan:

a. describe procedures for collecting gas during closure?	YES	NO	N/A
b. describe monitoring samples and analysis during closure?	YES	NO	N/A
c. maintenance of gas collection system during closure?	YES	NO	N/A

□ 10. If SECURITY (i.e., fencing) is required, does the closure plan:

a. describe the maintenance of security equipment during the closure period?	YES	NO	N/A
b. describe the installation of appropriate equipment at closure?	YES	NO	N/A
c. state the dimensions of the fence and the area to be enclosed?	YES	NO	N/A

VII. FINAL CLOSURE: SCHEDULE

★ 1. Does the plan identify the YEAR when final closure is expected to occur? (40 CFR 265.112(a)(4)) — YES NO

- What is the expected year of closure? 1985

★ 2. Is there a SCHEDULE for final closure activities? (40 CFR 265.112(a)(4)) — YES NO

IF "NO" SKIP TO COMMENTS SECTION.

3. Does the SCHEDULE for final closure include:

★	a.	date closure is expected to begin? (40 CFR 265.112(a)(1))	YES NO	
★	b.	total time required to close? (40 CFR 265.112(a)(4))	YES NO	
★	c.	the time for intervening closure activities? (40 CFR 265.112(a)(4))	YES NO	
	d.	time required for key steps:		
★		i. waste inventory treatment? (40 CFR 265.112(a)(4))	YES NO	N/A
★		ii. waste inventory disposal? (40 CFR 265.112(a)(4))	YES NO	N/A
		iii. removal of waste inventory and residues?	YES NO	N/A
		iv. decontamination of facility equipment and structures?	YES NO	N/A
		v. install containment and diversion structures?	YES NO	N/A
★		vi. placement of final cover? (40 CFR 265.112(a)(4))	YES NO	N/A
		vii. planting vegetation?	YES NO	N/A
		viii. closure certification?	YES NO	
		ix. other (specify: _____ _____)	YES NO	

4. Does the SCHEDULE for final closure:

★ a. encompass more than 90 days for treatment, removal, or disposal of hazardous wastes after receipt of final volume of wastes? (40 CFR 265.113(a)) — YES NO

★ b. encompass more than 180 days for completion of closure plan activities after receipt of final volume of wastes? (40 CFR 265.113(b)) (YES) NO

VIII. COMMENTS

Closure could take 9 months from date of submittal of plan - however, since we must go through administrative process, should be completed within required time period.

POST-CLOSURE PLAN CHECKLIST

I. WRITTEN PLAN

★ 1. Is there a written POST-CLOSURE PLAN at the facility? (40 CFR 265.118(a)) If answer is "N/A" skip to cost estimate checklists. — YES NO N/A

2. Does the post-closure plan cover the MAXIMUM AREA EXPECTED TO CONTAIN HAZARDOUS WASTE after closure, including:

   a. landfills? — YES NO N/A
   b. disposal surface impoundments? — YES NO N/A
   c. land treatment facilities where hazardous waste will remain? — YES NO N/A
   d. other remaining hazardous wastes? — YES NO N/A

★ 3. Does the post-closure plan provide for 30 years of post-closure care? (40 CFR 265.117(a)) — YES NO

   • How many years of post-closure care? _____

4. Does the post-closure plan cover all areas where hazardous waste will remain that were active as of 11/19/80? — YES NO N/A

II. SPECIFIC POST-CLOSURE PLAN REQUIREMENTS

★ 1. Does the plan clearly identify the ACTIVITIES required in post-closure care? (40 CFR 265.118(a)) — YES NO

★ 2. Does the plan clearly identify the FREQUENCIES for post-closure activities? See also Question 5. (40 CFR 265.118(a)) — YES NO

★ 3. Do the GROUNDWATER MONITORING plans (40 CFR 265.117(a)(1); 265.118(a)(1)) include:

   a. number of wells? — YES NO
   b. sample collection activities? — YES NO
   c. sample collection frequencies? — YES NO
   d. sample test activities? — YES NO
   e. sample test frequencies? — YES NO
   f. replacement of failed wells? — YES NO N/A

	4.	Is there a copy of the GROUNDWATER SAMPLING AND ANALYSIS PROGRAM attached to the plan?	YES	NO
★	5.	Do the MAINTENANCE PLANS for waste containment structures (40 CFR 265.118(a)(2)) include:		
	a.	inspection activities?	YES	NO
	b.	inspection frequencies?	YES	NO
	c.	maintaining final cover (erosion damage repair) activities?	YES	NO
★	d.	maintaining final cover (erosion damage repair) frequencies? (40 CFR 265.310(d)(1))	YES	NO
	e.	vegetation and fertilizing activities?	YES	NO
★	f.	vegetation and fertilizing frequencies? (40 CFR 265.118(a)(2)(i))	YES	NO
	g.	mowing activities?	YES	NO
	h.	mowing frequencies?	YES	NO
★	i.	collecting, removing, and treating leachate activities? (40 CFR 265.310(d)(2))	YES	NO N/A
★	j.	collecting, removing, and treating leachate frequencies? (40 CFR 265.310(d)(2))	YES	NO N/A
★	k.	gas collection activities? (40 CFR 265.310(d)(3))	YES	NO N/A
★	l.	gas collection frequencies? (40 CFR 265.310(d)(3))	YES	NO N/A
	m.	collection and treatment of runoff?	YES	NO
	n.	frequencies of runoff collection and treatment?	YES	NO
★	6.	Do MONITORING EQUIPMENT MAINTENANCE plans (40 CFR 265.118(a)(2)(ii)) include:		
★	a.	activities? (40 CFR 265.118(a)(2)(ii))	YES	NO
★	b.	frequencies? (40 CFR 265.118(a)(2)(ii))	YES	NO
	7.	Do SECURITY REQUIREMENT plans include:		
	a.	activities?	YES	NO
	b.	frequencies?	YES	NO
★	8.	Does the plan identify the name, address and phone number of the POST-CLOSURE PERIOD CONTACT? (40 CFR 265.118(a)(3))	YES	NO

★ 9. For landfills, does the post-closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.310(b))

(1) Control of pollution migration via ground water, surface water, and air.	YES	NO	N/A
(2) Control of surface water infiltration, including prevention of pooling.	YES	NO	N/A
(3) Prevention of erosion.	YES	NO	N/A

★ 10. For land treatment operations, does the post-closure plan address the following objectives and indicate how they will be achieved? (40 CFR 265.280(a))

(1) Control of migration of hazardous wastes and constituents into the ground water.	YES	NO	N/A
(2) Control of the release of contaminated runoff into surface water.	YES	NO	N/A
(3) Control of the release of airborne particulate contaminants caused by wind erosion.	YES	NO	N/A
(4) Protection of food chain crops.	YES	NO	N/A

★ 11. For landfills and land treatment operations, does the post-closure plan include at least a narrative statement indicating that the following factors were considered in addressing the closure objectives? (40 CFR 265.280(b), 310(b))

(1) Type and amount of waste.	YES	NO	N/A
(2) Mobility and rate of migration.	YES	NO	N/A
(3) Site location, topography, and surrounding land use.	YES	NO	N/A
(4) Climate, including precipitation.	YES	NO	N/A

(5)	Characteristics of the cover, including material, final surface contour, thickness, porosity, permeability, slope, vegetation.	YES	NO	N/A
(6)	Geological and soil profiles and surface and subsurface hydrology.	YES	NO	N/A
(7)	Unsaturated zone monitoring.	YES	NO	N/A
(8)	Type, concentration, and depth of hazardous constituent migration as compared to background concentrations.	YES	NO	N/A

III. OTHER REQUIREMENTS

★ 1.	Does the plan address the requirement for notice to the local land authority? (40 CFR 265.119)	YES	NO	
★ 2.	Does the plan address the requirement for notice in the deed? (40 CFR 265.120)	YES	NO	
3.	Does the plan address the protection and maintenance of surveyed benchmarks?	YES	NO	N/A

IV. COMMENTS

The Post Closure Plan is submitted as a contingency - it is expected that all waste will be removed - however, if contaminated soils are left, or if the g.w. assessment plan indicates hazardous constituents, post closure monitoring will be required.

2000-0356
9/30/83

GENERAL COST ESTIMATE CHECKLIST

A. Closure Cost Estimate

★ 1. Is there a written closure cost estimate? (40 CFR 265.142(a)) — (YES) NO

2. What is the amount of the closure cost estimate? — $ 265,800

3. Is there documentation supporting the cost estimate? — YES NO

   a. Work-ups? — (YES) NO
   b. Contractor bids? — (YES) NO — disposal
   c. Operating history? — YES NO
   d. Other _____ — YES NO

★ 4. Has the cost estimate been adjusted by the 9% inflation factor? (40 CFR 265.142(b)) New estimate. — YES NO (N/A)

5. Does the cost estimate cover all the activities in the closure plan including costs of labor? — (YES) NO

★ 6. Does the closure cost estimate cover all required closure activities? (40 CFR 265.142(a)) If "NO" specify in comments below. — (YES) NO

Comments: Cost estimate include cost of installing new WTP system.

B. Post-Closure Cost Estimate

★ 1. Is there a written post-closure cost estimate? (40 CFR 265.144(a)) — YES NO N/A

2. What is the amount of the estimate? $ 93,000

3. Is there documentation supporting the post-closure cost estimate? — YES NO

a. Work-ups? — YES NO
b. Contractor bids? — YES NO
c. Operating history? — YES NO
d. Other _____ — YES NO

★ 4. Is the annual estimate multiplied by 30 to cover to entire post-closure care period? (40 CFR 265.144(b)) — YES NO

★ 5. Has the cost estimate been adjusted by the 9% inflation factor? New estimate (40 CFR 265.144(b)) — YES NO N/A

★ 6. Does the cost estimate cover all the activities in the post-closure plan (40 CFR 265.118)? — YES NO

Including labor costs? — YES NO

★ As well as the requirements of notice to local land authorities and in deeds? (40 CFR 265.119, 265.120) — YES NO

★ 7. Does the post-closure cost estimate cover all required post-closure activities? (40 CFR 265.144(a)) — YES NO
If "NO" specify in comments below.

Comments: Not sure whether notice in deed will be necessary

CLOSURE COST ESTIMATE VERIFICATION

Does Not Apply	Applies	
	In-cluded	Not In-cluded

(40 CFR 265.112(a)(2))

★

1. TREATING, DISPOSING OR REMOVING INVENTORY

A. On Site

a. Amount of inventory and residues* to be disposed on site (yd^3)
   i. From cost estimate — 708,400
   ii. From closure plan
☐ iii. From visual inspection

b. Unit cost for on site treatment or disposal ($/$yd^3$)
   i. From cost estimate

c. Total cost of on site treatment or disposal ($)
   i. From cost estimate — $6200 + cost of WTP. @87,500)

B. Off Site

a. Amount of inventory and residues to be disposed off site (yd^3)
   i. From cost estimate
   ii. From closure plan — ~200 cu yds.
☐ iii. From visual inspection

b. Unit cost for off site treatment or disposal ($/$yd^3$)
   i. From cost estimate — $43/ton. $ [illegible]

c. Total cost for off-site disposal excluding transportation
   i. From cost estimate — $ 24,000 [illegible]

*Residues here refer to residues existing at initiation of closure.

Does Not Apply	Applies	
	Included	Not Included

d. Unit cost for transport of inventory ($/yd³/mile)
   i. From cost estimate — 310/20 ton load.

e. Transport distance (miles)
   i. From cost estimate — 100 mi
   ii. By map reference

f. Cost of transport ($)
   i. From cost estimate — 9600

g. Cost of off site treatment or disposal including transport ($)
   i. From cost estimate — 119,100
   ii. Inspector calculation

C. Total Cost of Treating, Disposing or Removing Inventory ($)

a. From cost estimate — #119,100

2. DECONTAMINATION

A. Soil Excavation

(40 CFR 265.280(c)(1))

a. Volume of soil to be removed (yd³)
   i. From cost estimate — 200 yd³
   ii. From closure plan
   ☐ iii. Inspector's estimate — OL

b. Unit cost for soil excavation ($/yd³)
   i. From cost estimate

c. Total cost of contaminated soil excavation ($)
   i. From cost estimate — included above.

Does Not Apply	Applies	
	Included	Not Included

B. Wastewater Removal

a. Volume of wastewater to be removed (yd^3)
   i. From cost estimate — 708,000 gal
   ii. From closure plan
☐ iii. Inspector's estimate — ok.

b. Unit cost for wastewater removal ($/$yd^3$)
   i. From cost estimate

c. Total cost of wastewater removal ($)
   i. From cost estimate — 6200.

C. On Site Treatment or Disposal of Contaminated Soil, Wastewater and Residues Generated During Decontamination

a. Volume of soil, wastewater and residues to be treated/disposed on site (yd^3) — current weight
   i. From cost estimate — 78,000 gal
   ii. From closure plan
☐ iii. Inspector's estimate

b. Unit cost for treatment/disposal ($/$yd^3$) — NA
   i. From cost estimate

c. Cost of on site treatment/disposal ($) — NA.
   i. From cost estimate

D. Off Site Treatment or Disposal of Contaminated Soil, Wastewater and Residues Generated During Decontamination

a. Volume of soil, wastewater and residues to be treated/disposed off site (yd^3) — See above.
   i. From cost estimate
   ii. From closure plan
☐ iii. From visual inspection

Does Not Apply	Applies	
	Included	Not Included

b. Unit cost for off site treatment/disposal ($/yd³)
   i. From cost estimate _____

c. Cost of off site treatment/disposal ($) excluding transportation
   i. From cost estimate _____

d. Unit cost for transport ($/yd³/mile)
   i. From cost estimate _____

e. Transport distance (miles)
   i. From cost estimate _____
   ii. By map reference _____

f. Cost of transport ($)
   i. From cost estimate _____

g. Total cost of off site treatment or disposal including transport ($)
   i. From cost estimate _____

(40 CFR 265.112(a)(3))

★

E. Equipment Decontamination

a. Amount of equipment to be decontaminated (tons)
   i. From cost estimate _____
   ii. From closure plan unknown.
□ iii. Inspector's estimate _____

b. Unit cost for equipment decontamination ($/ton)
   i. From cost estimate _____

c. Cost of equipment decontamination ($)
   i. From cost estimate _____
   apparently included in contractor cost of $24,000 - hot water

F. Total Cost of Decontamination ($)

a. From cost estimate _____

Does Not Apply	Applies: Included	Applies: Not Included

(40 CFR 265.115)

★

3. CERTIFICATION

A. Professional Engineer Hours (hrs)

a. From cost estimate —
b. From closure plan
☐ c. Inspector's estimate

B. Unit Cost for Professional Engineer* ($/hr.)

a. From cost estimate

C. Total Certification Cost ($)

a. From cost estimate 35,000

(40 CFR 265.112(a)(4); 265.280(c)(2))

★

4. COVER

A. Cover Material** backfill

a. Area to be covered (yd^2)
i. From cost estimate
ii. From closure plan 7315 yd^3
☐ iii. From visual inspection ok

b. Depth of cover material (yd)
i. From cost estimate
ii. From closure plan 450-yd grav
☐ iii. Inspector's estimate ok

*Loaded with costs for support personnel.

**Includes materials to be used for cover, for example gravel or clay, except for top-soil.

Does Not Apply	Applies	
	Included	Not Included

c. Volume of material to be obtained on site (yd^3)
   i. From cost estimate
   ii. From closure plan — 3000.
   ☐ iii. Inspector's estimate — OL

d. Volume of material to be obtained off site (yd^3)
   i. From cost estimate
   ii. From closure plan — 2315
   ☐ iii. Inspector's estimate — OL.

e. Unit cost of excavating material on site ($/$yd^3$)
   i. From cost estimate — see above

f. Unit cost of purchasing material off site ($/$yd^3$)
   i. From cost estimate — 3.50

g. Unit cost of transporting material ($/$yd^3$/mile)
   i. From cost estimate — included above

h. Transport distance (miles)
   i. From cost estimate — —
   ii. By map reference — —

i. Transport cost ($)
   i. From cost estimate — included above

j. Total cost of acquiring material ($)
   i. From cost estimate — $ 8100

k. Unit cost of spreading and compacting material ($/$yd^3$)
   i. From cost estimate — $65/hr. 9100. 350/yd

l. Cost of spreading and compacting material ($)
   i. From cost estimate — 1100.

m. Total cost of acquiring and placing material ($)
   i. From cost estimate — $ 14,300

Does Not Apply	Applies	
	Included	Not Included

B. Top-soil

a. Area to be covered (yd^2)
   i. From cost estimate — NA
   ii. From closure plan
☐ iii. From visual inspection

b. Depth of top-soil, allowing for appropriate grading (yd)
   i. From cost estimate
   ii. From closure plan
☐ iii. Inspector's estimate

c. Volume of top-soil to be obtained on site (yd^3)
   i. From cost estimate
   ii. From closure plan
☐ iii. Inspector's estimate

d. Volume of top-soil to be obtained off site (yd^3)
   i. From cost estimate
   ii. From closure plan
☐ iii. Inspector's estimate

e. Unit cost of excavating top-soil on site ($/yd^3$)
   i. From cost estimate

f. Unit cost of purchasing top-soil off site ($/yd^3$)
   i. From cost estimate

g. Unit cost of transporting top-soil ($/yd^3$/mile)
   i. From cost estimate

h. Transport distance (miles)
   i. From cost estimate
   ii. By map reference

Area to be grouted - used for the storage - therefore NA - assuming all waste can be removed.

Does Not Apply	Applies	
	Included	Not Included

i. Transport cost ($)
   i. From cost estimate

j. Total cost of acquiring top-soil ($)
   i. From cost estimate

k. Unit cost of spreading and compacting top-soil ($/yd^3)
   i. From cost estimate

l. Cost of spreading and compacting top-soil ($)
   i. From cost estimate

m. Total cost of acquiring and placing top-soil ($)
   i. From cost estimate

C. Synthetic Liner and Buffer Material

a. Area to be covered (yd^2)
   i. From cost estimate
   ii. From closure plan
   ☐ iii. From visual inspection

b. Depth of sand* buffer (yd)
   i. From cost estimate
   ii. From closure plan
   ☐ iii. Inspector's estimate

c. Volume of sand to be obtained on site (yd^3)
   i. From cost estimate
   ii. From closure plan
   ☐ iii. Inspector's estimate

*Includes other materials (other than clay and top-soil) which may be used along with the synthetic liner.

Does Not Apply	Applies	
	Included	Not Included

d. Volume of sand to be obtained off site (yd^3)
   i. From cost estimate _____
   ii. From closure plan _____
□ iii. Inspector's estimate _____

e. Unit cost of excavating sand on site ($/$yd^3$)
   i. From cost estimate _____

f. Unit cost of purchasing sand off site ($/$yd^3$)
   i. From cost estimate _____

g. Unit cost of transporting sand ($/$yd^3$/mile)
   i. From cost estimate _____

h. Transport distance (miles)
   i. From cost estimate _____
   ii. By map reference _____

j. Total cost of acquiring sand ($)
   i. From cost estimate _____

k. Unit cost of spreading and compacting sand ($/$yd^3$)
   i. From cost estimate _____

l. Cost of spreading and compacting sand ($)
   i. From cost estimate _____

m. Total cost of acquiring and placing sand ($)
   i. From cost estimate _____

n. Unit cost of acquiring and installing synthetic liner ($/$yd^2$)
   i. From cost estimate _____

o. Cost of acquiring and installing synthetic liner ($)
   i. From cost estimate _____

p. Unit cost of acquiring and installing synthetic liner and buffer materials ($/$yd^2$)
   i. From cost estimate _____

Does Not Apply	Applies: Included	Applies: Not Included

q. Total cost of acquiring and installing synthetic liner and buffer materials ($)
   i. From cost estimate _____

D. Total Cover Cost

a. Unit cost of cover ($/yd²)
   i. From cost estimate _____

b. Total cost of cover ($)
   i. From cost estimate _____

5. Vegetation

(40 CFR 265.280(c)(2)(ii))

A. Area in Need of Vegetation (yd²)
   a. From cost estimate _____
   b. From closure plan _____
   c. From visual inspection _____

B. Unit Cost for Acquiring and Placing Seed, Fertilizer, Etc. ($/yd²)
   a. From cost estimate _____

C. Total cost of Acquiring and Placing Seed, Fertilizer, Etc. ($)
   a. From cost estimate _____

6. Other (from cost estimate) ($) _____

_____ (specify) $ _____

_____ (specify) $ _____

7. Total Closure Costs ($) _____

A. From cost estimate _____

COMMENTS

POST-CLOSURE COST ESTIMATE VERIFICATION

FROM CONTINGENCY POST CLOSURE PLAN.

Does Not Apply	Applies	
	Included	Not Included

1. INSPECTION/FACILITY VISITS - monthly inspects + yearly benchmark.

A. Total hours of professional level personnel (hrs/year)
   a. From cost estimate _____
   b. From post-closure plan _____
   ☐ c. Inspector's estimate _____

B. Unit cost for professional level personnel*($/hr)
   a. From cost estimate _____

C. Total inspection/facility visit cost ($/year)
   a. From cost estimate 1300

2. REESTABLISHING FINAL COVER AND VEGETATION

(40 CFR 265.118(a)(2)(i); 265.310(d)(1))

A. Area involved (yd^2)
   a. From cost estimate _____
   b. From post-closure plan _____
   ☐ c. From visual inspection _____

B. Unit cost for reestablishing cover and vegetation ($/$yd^2$)
   a. From cost estimate _____

C. Reestablishing cover and vegetation cost ($/year)
   a. From cost estimate 600

*Loaded with costs for support personnel.

Does Not Apply	Applies	
	In-cluded	Not In-cluded

3. FERTILIZING

A. Area involved (yd^2)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. From visual inspection _____

B. Unit cost for fertilizing ($/$yd^2$)
   a. From cost estimate _____

C. Total fertilizing cost ($/year)
   a. From cost estimate included above

4. MOWING

A. Area involved (yd^2)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. From visual inspection _____

B. Unit cost for mowing ($/$yd^2$)
   a. From cost estimate _____

C. Mowing cost ($/year)
   a. From cost estimate included above

5. GROUNDWATER MONITORING AND WELL REPLACEMENT

(40 CFR 265.117(a)(1))

A. Groundwater Monitoring

   a. Number of wells
      i. From cost estimate _____
      ii. From post-closure plan _____
☐   iii. From visual inspection _____

Does Not Apply	Applies	
	Included	Not Included

b. Unit cost for groundwater monitoring ($/well/year)
   i. From cost estimate _____

c. Groundwater monitoring cost ($/year)
   i. From cost estimate included below

B. Well Replacement

a. Average annual number of well replacements
   i. From cost estimate _____
   ii. From post-closure plan _____
☐ iii. Inspector's estimate _____

b. Unit cost for well replacement ($/replacement)
   i. From cost estimate _____

c. Cost for well replacement ($/year)
   i. From cost estimate included below

C. Total groundwater monitoring and well replacement cost ($/year)*
   a. From cost estimate 13,800

6. MAINTAINING AND REPLACING FENCES

(40 CFR 265.117(b); 265.14(b)(2)(i))

★

A. Maintaining Fences –

a. Length of fence required (yd)
   i. From cost estimate _____
   ii. From post-closure plan _____
☐ iii. From visual inspection _____

*Note in comment section whether well replacement component is on annual basis or not.

Does Not Apply	Applies	
	Included	Not Included

b. Unit cost for maintaining fences ($/yd)
   i. From cost estimate _____

c. Cost for maintaining fences ($/year)
   i. From cost estimate _____

B. Replacing Fences

a. Length of fence to be replaced annually* (yd)
   i. From cost estimate _____
   ii. From post-closure plan _____
□ iii. Inspector's estimate _____

b. Unit cost for fence replacement ($/yd)
   i. From cost estimate _____

c. Cost of fence replacement ($/year)
   i. From cost estimate _____

C. Total Maintaining and Replacing Fences Cost ($/year)**

a. From cost estimate included in Box 4

7. COLLECTING, REMOVING AND TREATING LEACHATE

A. Amount of leachate collected (gal./year)

a. From cost estimate NA
b. From post-closure plan _____

(40 CFR 265.310(d)(2))

★

*Total length of fence to be replaced over the entire post-closure period divided by 30 to obtain an annual average.

**Note in comment section whether fence replacement component is on annual basis or not.

Does Not Apply	Applies	
	Included	Not Included

B. Off Site Disposal

a. Amount of leachate removed to off site disposal facility (gal./year)
   i. From cost estimate
   ii. From post-closure plan

b. Unit cost for off site leachate disposal ($/gal.)
   i. From cost estimate

c. Unit cost for transport of leachate ($/gal./mile)
   i. From cost estimate

d. Transport distance (miles)
   i. From cost estimate
   ii. From post-closure plan
   iii. By map reference

e. Cost of transport ($/year)
   i. From cost estimate

f. Total cost of off-site treatment/ disposal of leachate ($/year)
   i. From cost estimate

C. On Site Disposal

a. Amount of leachate disposed of on-site (gal.)
   i. From cost estimate
   ii. From post-closure plan

b. Unit cost of on site leachate disposal ($/gal.)
   i. From cost estimate

c. Cost of on-site leachate disposal ($/year)
   i. From cost estimate

Does Not Apply	Applies	
	Included	Not Included

D. Total Collecting, Removing, Treating and Disposal of Leachate Cost ($)
   a. From cost estimate _____

8. Administrative

A. Hours of management time required to administer the post-closure plan (hrs/year)
   a. From cost estimate _____
   b. From post-closure plan _____
☐ c. Inspector's estimate _____

B. Unit cost for management time* ($/hr)
   a. From cost estimate _____

C. Total administrative cost ($/year)
   a. From cost estimate $2000

9. Other (specify) ($/year) _____

(40 CFR 265.119) ★
(40 CFR 265.120) ★

A. Local land authority notice ($/year) —
B. Notice in deed ($/year) —
C. _____
D. _____
E. _____
(Total Other)

10. Total Annual Post-Closure Costs ($) _____

a. From cost estimate $24,000

→ from post closure / contingency cost estimate assuming waste cannot be removed.

*Loaded with costs for support personnel.

COMMENTS

DIVISION OF SOLID WASTE
REVIEWED BY DL
DATE 9-1-83
COMMENTS Letter date: 8-25-83

COLUMBUS FACILITY

KERR-McGEE CHEMICAL CORPORATION

FOREST PRODUCTS DIVISION

HAZARDOUS WASTE TRAINING RECORD

The names, titles, job descriptions, and training dates of the key facility employees who are trained to oversee the hazardous waste management operation at the Columbus plant are summarized below:

NAME	TITLE	JOB DESCRIPTION	INTRODUCTORY TRAINING	FOLLOW-UP COURSE	FOLLOW-UP COURSE
B. W. Boisseau	Supt.	Principal hazardous waste coordinator responsible for all plant operations, with the authority to commit the resources needed to carry out the contingency plan.	1/20/81	2/05/81 4/14/81 5/24/82	2/15/83
Paul Compton	Asst. Supt.	First alternate hazardous waste coordinator and assistant to the superintendent, with the authority to commit the needed resources to carry out the contingency plan in the absence of the principal hazardous waste coordinator.	2/16/82	3/24/82 5/07/82	4/06/83
Don Getz	Supvr. Treatment and Quality Control	Second alternate hazardous waste coordinator who assists the principal and first alternate coordinators in implementing resources needed to carry out the contingency plan.	2/06/81	2/16/82 3/24/82 5/07/82	4/06/83
Neal Lollar	Supvr. Maintenance	Third alternate hazardous waste coordinator who assists the principal, first and second alternate coordinators in implementing resources needed to carry out the contingency plan.	4/06/83		

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Kerr McGee
LOCATION Columbus MS
DATE 5/23/84.
INSPECTORS John Hellmann
Jim Cook - EPA.

met with Pete Gaskin.
Bobby Boisseau - Plant Superintendent.
Don Getz — Coordinator.

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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 haardous 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.	✓			No; analysis, 84 - creosote plant only. Results from 8/27/80 in file.
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:				Fence around impoundment for security.
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.				

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

REQUIREMENT	Yes	No	N/A	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	✓			Daily inspections made of signs, fence etc.
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.	✓			Daily inspections made. Fire hose, dike erosion leaks. overflow. freeboard. fencing signs.
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.	✓			Impoundment in process area. Inspections the passive in nature —
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.	✓			

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	COMMENTS
265.16 Facility Personnel Training				Training to be updated 5/24/84.
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.	✓			Last training 4/6/83.
b) The training program must be completed within six months of the effective date of Part 265.	✓			Test given to employees yearly.
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				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.	✓			Absorbent pillow ; 3M pads. Absorbent boom.
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.	✓			Don Clardy on 24 hour call - has backhoe. Extinguishers on site - hose -- city water - hydrants on site. Emergency coordinators are current. Arrangements with local authorities should be made.
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)			✓	Annual Report - dated 3/21/84. - 18,700 lb/yr. generated - 88,700 gal. in pond.
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.			✓	

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

REQUIREMENT	Yes	No	N/A	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: a) releases, fires, explosions b) groundwater contamination c) facility closure.			✓	

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.	✓			Currently under commission order to conduct assessment plan. → should be no problem with meeting reports. Upgradient well next week.
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:				Closure plan reviewed - 4/9/84 submission closure plan was discussed.. To be resubmitted 6/11/84.
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.	✓			

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.	✓			

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

REQUIREMENT	Yes	No	N/A	COMMENTS
265.117(a) Post closure care must consist of at least:				Assumption that facility will be clean closed
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.	✓			Financial requirements have been reviewed & are in order.
SUBPART I - OTHER FACILITY STANDARDS				
265.170 - 265.172 The container must be compatible with the waste to be stored.			✓	

REQUIREMENT	Not in compliance - No Not applicable - NA 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.				
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.			✓	Tank is to be put back on Pad 1.
(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

REQUIREMENT	Yes	No	N/A	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.	✓			Both ponds - 3' capacity 2' freeb.
265.223 Earthen dikes must have protective cover.	✓			controlled at 2' by overflow pipe.
265.225 Must conduct waste analyses and trial tests in accordance with 265.225.	✓			- pretreatment permit requires analysis. - analysis by M.S.U. - Report quarterly. - 1st reporting period. - Oil + Grease, Cu, Cr, As; pH.
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.	✓			daily.
265.228 The surface impoundment must close in accordance with 265.228.	✓			

Not in compliance - No
Not applicable - NA

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
265.281 Ignitable or reactive waste must not be placed in a land treatment facility unless 265.281 is complied with.				
265.282 Incompatible wastes 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.				
265.313 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				

Not in compliance - No
Not applicable - NA

REQUIREMENT	Yes	No	N/A	COMMENTS
265.315 (i) 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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
Other questions or standards.				
Are there any other generators transporting their waste to this hazardous waste management facility?		✓		

M. B.W. Boisseau

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Kerr McGee
LOCATION Columbus, Ms.
DATE 6/6/83
INSPECTORS Bob Lee
Fred Hille

P.O. Box 906
ph. 328-7551

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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 haardous 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.				

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	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.	✓			

REQUIREMENT	Not in compliance - NO Not applicable - NA Yes	No	N/A	COMMENTS
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.	✓			Need job description for all personnel related to Hzg. Waste
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 in compliance - No
Not applicable - NA

REQUIREMENT.	Yes	No	N/A	COMMENTS
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 waste 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.				

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

REQUIREMENT	Yes	No	N/A	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: a) releases, fires, explosions b) groundwater contamination c) facility closure.				

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.	✓			

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.				

REQUIREMENT	Not in compliance - NO Not applicable - NA 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.				
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.				

REQUIREMENT	Not applicable - NA			COMMENTS
	Yes	No	N/A	
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.		✓		controlled by gravity flow into city POTW
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.			✓	

REQUIREMENT	Not applicable - NA			COMMENTS
	Yes	No	N/A	
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.				

REQUIREMENT	Not in compliance - NO Not applicable - NA Yes	No	N/A	COMMENTS
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 in compliance - No
Not applicable - NA

REQUIREMENT	Yes	No	N/A	COMMENTS
265.281 Ignitable or reactive waste must not be placed in a land treatment facility unless 265.281 is complied with.				
265.282 Incompatible wastes 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.				
265.313 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	Not applicable - NA			COMMENTS
	Yes	No	N/A	
265.315 (i) 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				

REQUIREMENT	Not applicable - NA			COMMENTS
	Yes	No	N/A	
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.				

REQUIREMENT	Not in compliance - NO Not applicable - NA			COMMENTS
	Yes	No	N/A	
Other questions or standards.				
Are there any other generators transporting their waste to this hazardous waste management facility?				

Gilbert Lowe
P.O. Box 506
Columbus 39701

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY Kerr-McGee
LOCATION Columbus Forest Products Div.
DATE 1/21/82
INSPECTORS Bob Lee

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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 haardous 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.				

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	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	✓			Security is excellent Chain link Fence 7' with 3 barbed wire on Top
(ii) a means to control entry	✓			Watchman on weekend + when not operating
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.	✓			

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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				

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	COMMENTS
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.	✓			Has several pieces of equipment if needed
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.			✓	

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

REQUIREMENT	Yes	No	N/A	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: a) releases, fires, explosions b) groundwater contamination c) facility closure.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.	✓			

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

REQUIREMENT.	Yes	No	N/A	COMMENTS
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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.				

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

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.				
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.				

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

REQUIREMENT	Not in compliance - No Not applicable - NA Yes	No	N/A	COMMENTS
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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
265.281 Ignitable or reactive waste must not be placed in a land treatment facility unless 265.281 is complied with.				
265.282 Incompatible wastes 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.				
265.313 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	Not applicable - NA			COMMENTS
	Yes	No	N/A	
265.315 (i) 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

REQUIREMENT	Yes	No	N/A	COMMENTS
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.				

REQUIREMENT	Not in compliance - No Not applicable - NA			COMMENTS
	Yes	No	N/A	
Other questions or standards. Are there any other generators transporting their waste to this hazardous waste management facility?				

INTERIM STATUS COMPLIANCE CHECKLIST

FACILITY EPA I.D. NO. MSD990866329
FACILITY Kerr McGee
LOCATION Columbus, Ms.
MAILING ADDRESS 507 14th Street North
DATE 4/22/81
TIME 3:00
INSPECTORS Jim Hardage
David Lee
_____
_____

INSTALLATION CONTACT PERSON Gilbert Lowe
TITLE OF PERSON CONTACTED Superintendent
OTHER PERMITS
a. NPDES NUMBERS _____
b. AIR PERMIT NUMBERS _____

I, _____, being an employee of _____, am in charge of the hazardous waste management of the aforementioned Hazardous Waste Management Facility. I am aware under penalty of the Mississippi Solid Waste Disposal Law of 1974, as amended, that the above mentioned Hazardous Waste Management Facility must comply with the Mississippi Hazardous Waste Regulations, of which I have a copy. I do acknowledge that an inspection was made and also acknowledge the violations that were found on this the _____day of _____, 19__.

Employee's Signature _____
Inspector's Signature _____
Date _____

*This facility made a copy of the inspection report. ☐

*The inspector's report will be mailed to this facility within the next five (5) calendar days. ☐

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

REQUIREMENT	Yes	No	N/A	COMMENTS
SUBPART B - GENERAL FACILITY STANDARDS				
402.7-12 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.			N/A	
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.~~ 402.7 and section G.			N/A	
402.7-13 General Waste Analysis				
Before treating, storing, or disposing of haardous 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.	Yes			EP Toxicity Test
402.7-14 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~~. 402.7				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-14 - Continued				
b) Unless exempt under 402.7-14 (a)(1) or 402.7-14(a)(2), a facility must have:				
1) a 24-hour surveillance system			N/A	
2) (i) an artificial or natural barrier which completely surrounds the active portion of the facility	Yes			
(ii) a means to control entry	Yes			
c) A sign warning of the danger of intruding into the facility.	Yes			
402.7-15 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.	Yes			
b) The owner or operator must develop and follow a schedule and plan for inspections.	Yes			
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.	Yes			in contingency plan
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.	Yes			

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-16 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~~. 402.7	Yes			In process.
b) The training program must be completed within six months of the effective date of ~~Part 265~~. 402.7	Yes			
c) There must be an annual review of the initial training in (a) above.			N/A	
d) The owner or operator must maintain records of training.	Yes			
e) Training records on current personnel must be kept until closure of the facility.				HAve until May 1, 1981 to complete.
402.7-17 General Requirements for Ignitable, Reactive or Incompatible Wastes			N/A	
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	Yes	No	N/A	COMMENTS
402.7-17 - Continued-- quantities to threaten human health;			N/A	
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 402.7-30 through 402.7-37, facilities must be maintained and operated for and prevention of releases of hazardous wastes controlled by the State.	Yes			
SUBPART D - CONTINGENCY PLANS				
Pursuant to 402.7-56, facilities must have contingency plans and emergency procedures to be followed in the event of a release of hazardous waste.	Yes			
SUBPART E - MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING				
402.7-71(a)(1-5) If a facility receives hazardous waste accompanied by a manifest, the owner or operator must meet the requirements of 402.7-71(a)(1-5)			N/A	
402.7-71(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 402.7-71.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-72(a) Upon discovery of significant manifest discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter.			N/A	
(b) If a significant manifest discrepancy is not resolved, the owner or operator must notify the Director.				
402.7-73(b) The owner or operator must keep a written operating record at the facility which meets the requirements of 402.7-73(b).				
402.7-74(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.				
402.7-75 The owner or operator must submit an annual report to the Director in compliance with the requirements of 402.7-75.				
402.7-76 The receipt of any unmanifested waste must be reported to the Director.				
402.7-77 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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
SUBPART F - GROUNDWATER MONITORING				
402.7-90 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 402.7-90.			N/A	Study in progress
402.7-91 - 402.7-94 The owner and operator must install, operate, and maintain a groundwater monitoring system which meets the requirements of 402.7-91 - 402.7-94.				
402.7-90(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				
402.7-111 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.			N/A	
402.7-112(a) The owner or operator must have a written closure plan on the effective date of Part 402.7.				Effective date has been extended to May 19, 1981 by EPA.

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-112(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.			N/A	
402.7-113(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.				
402.7-114 Upon completion of closure, all equipment and structures must be properly disposed of or decontaminated.				
402.7-115 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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-117(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 402.7 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.			N/A	
402.7-119 Within 90 days after closure, the owner or operator must submit a survey plat of the facility.				
402.7-120 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				
402.7-142(a) The owner or operator must develop and maintain a current estimate of closure and post-closure costs.			N/A	Effective date is May 19, 1981
SUBPART I - OTHER FACILITY STANDARDS				
402.7-170 - 402.7-172 The container must be compatible with the waste to be stored.			N/A	

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-173 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.			N/A	
402.7-174 Areas where containers are stored must be inspected weekly.				
402.7-176 Containers holding ignitable or reactive waste must be located at least 15 meters from the facility's property line.				
402.7-177(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				
402.7-192(b) Hazardous waste must be placed in a tank if they could cause the tank or its liner to leak.				Existing storage tank is not currently in use. May be used at a later date for temporary storage.
(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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-193 Waste analysis must be conducted pursuant to 402.7-13, and 402.7-193(a).				
402.7-194 Tanks must be inspected in accordance with 402.7-194.				
402.7-197 At closure, all hazardous waste and hazardous waste residues must be removed from the tanks.				
402.7-198 Ignitable or reactive waste should not be placed in a tank unless 402.7-198 is complied with.				
402.7-199 Incompatible wastes must not be placed in the same tank unless 402.7-176 is complied with.				
SUBPART K - SURFACE IMPOUNDMENTS				
402.7-222 Must maintain at least two feet of freeboard.	Yes			Polishing pond has less than 2 ft. of freeboard. Doubtful if it would ever overflow. Discharge goes to city sewer system.
402.7-223 Earthen dikes must have protective cover.	Yes			
402.7-225 Must conduct waste analyses and trial tests in accordance with 402.7-225.			N/A	
402.7-226(1) Must inspect the freeboard level at least once each operating day.	Yes			
(2) Must inspect the surface impoundment at least once a week to detect any leaks, deterioration, or failure.	Yes			
402.7-228 The surface impoundment must close in accordance with 402.7-228.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-229 Ignitable or reactive waste must not be placed in a surface impoundment unless 402.7-229 is complied with.			N/A	
402.7-230 Incompatible wastes must not be placed in the same surface impoundment unless 402.7-17(b) is complied with.			N/A	
SUBPART L - WASTE PILES				
402.7-251 A waste pile must be protected and managed to control wind dispersal.			N/A	
402.7-252 An owner or operator must conduct waste analyses unless the facility meets the exemptions of 402.7-252.				
402.7-253 Within one year after the effective date of the regulations, leachate or run-off from a pile must be controlled pursuant to 402.7-253.				
402.7-256 Ignitable or reactive waste must not be placed in a waste site unless 402.7-256 is complied with.				
402.7-257 The requirements of 402.7-257 for incompatible wastes must be complied with.				
SUBPART M - LAND TREATMENT				
402.7-272(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.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-272 -- Continued (c) Run-off from active portions must be collected as of one year after the effective date of Part 402.7.			N/A	
402.7-273 Waste analyses must be conducted pursuant to 402.7-273.				
402.7-276(a) An owner or operator must notify the State Director within 60 days after the effective date of Part 402.7 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 402.7-276(b) is complied with.				
(c) Food chain crops must not be grown on a land treatment facility receiving waste that contains cadmium unless 402.7-276(c) is complied with.				
402.7-278 The owner or operator must have in writing and must implement an unsaturated zone monitoring plan pursuant to 402.7-278.				
402.7-279 The owner or operator must keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in a facility.				
402.7-280 A land treatment facility must meet the closure and post-closure requirements of 402.7-280.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-281 Ignitable or reactive waste must not be placed in a land treatment facility unless 402.7-281 is complied with.			N/A	
402.7-282 Incompatible wastes must not be placed in the same land treatment area unless 402.7-17(b) is complied with.				
SUBPART N - LANDFILLS				
402.7-302(a) Run-on must be diverted away from the active portions within one year after the effective date of Part 402.7.			NA	
(b) Run-off from active portions must be collected within one year after the effective date of Part 402.7.				
(d) Must control wind dispersal.				
402.7-309 The owner or operator must meet the surveying and recordkeeping requirements of 402.7-309.				
402.7-310 A landfill must comply with closure and post-closure requirements of 402.7-310.				
402.7-312 Ignitable or reactive waste must not be placed in a landfill unless 402.7-312 is complied with.				
402.7-313 Incompatible wastes must not be placed in a landfill unless 402.7-17(b) is complied with.				
402.7-314 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 402.7-314 are complied with.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
402.7-315 (i) Empty containers must be reduced in volume as of one year after the effective date of Part 402.7.			N/A	
SUBPART O - INCINERATORS				
402.7-343 Must be at steady state conditions before adding hazardous waste.			N/A	
402.7-345 Waste analyses must be conducted pursuant to 402.7-345.				
402.7-347 Monitoring and inspections must be conducted as delineated in 402.7-347.				
402.7-351 At closure, the owner or operator must remove all hazardous waste and hazardous waste residues.				
SUBPART P - THERMAL TREATMENT				
402.7-373 Must be at steady state conditions before adding hazardous wastes.				
401.7-375 Waste analyses must be conducted pursuant to 402.7-375.				
402.7-377 Monitoring and inspections must be conducted as delineated in 402.7-377.				
402.7-301 At closure, the owner or operator must remove all hazardous waste residues.				
402.7-382 Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives.				

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

REQUIREMENT	Yes	No	N/A	COMMENTS
SUBPART Q - CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT				
402.7-401(a) Must comply with 402.7-17(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.				
402.7-402 Waste analyses and trial tests must be conducted pursuant to 402.7-402.				
402.7-403 Inspections must be made pursuant to 402.7-403.				
402.7-404 At closure, all hazardous waste and hazardous waste residues must be removed.				
402.7-405 Ignitable or reactive waste must not be placed in a treatment process unless 402.7-405 is complied with.				
402.7-406 Incompatible wastes must not be placed in the same treatment process unless 402.7-17(b) is complied with.				
SUBPART R - UNDERGROUND INJECTION				
402.7-430(a) underground injection of hazardous waste is not subject to the closure and post-closure or financial requirements of Part 402.7. Underground injection is subject to the other requirements of Part 402.7.			N/A	

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

REQUIREMENT	Yes	No	N/A	COMMENTS
Other questions or standards.				
Are there any other generators transporting their waste to this hazardous waste management facility?			N/A	

SOLID WASTE MANAGEMENT BRANCH ACTIVITIES FORM

FACILITY NAME: Kerr - McGee - Forest Products

FACILITY ADDRESS: 507 14th St. North Columbus, MS 39701

FACILITY LOCATION:

FACILITY CONTACT: Gilbert Lowe PHONE NO: 328-7551

COMMENTS: See attached inspection form.

Facility code note:
Treatment conducted in lagoons TR & LO codes are for same facility

Jim Hardage
Signature of Inspector

FACILITY ID NUMBER | DATE 04 22 81

| M | S | D | 9 | 9 | 0 | 8 | 6 | 6 | 3 | 2 | 9 |

INSPECTOR (Single letter code)

| D | H | | |

TYPE ACTIVITY (Enter code(s))

| I | S | | | | | | |

CI - compliance inspection
FO - follow-up inspection
CO - complaint investigation
IS - interim status inspection
SI - site investigation
GB - geological boring
TO - training operator
MO - monitoring
TA - technical assistance
SR - special request
OR - other (specify)

TYPE FACILITY (Enter code(s))

| G | N | T | R | L | O | | | | | | |

GN - generator
TR - treater
TP - transporter
SS - storage (short-term)
SL - storage (long-term)
LF - landfill
SF - sanitary landfill
OD - open dump
LM - landfarm
LO - lagoon (impoundment)
UI - UIC
IN - incinerator
PF - processing facility
TS - transfer station
OR - other (specify)

VIOLATIONS

Section No.	Subsection

* under subsection indicates entire subpart violated

SPECIAL WASTE SURVEY FORM

MISSISSIPPI STATE BOARD OF HEALTH

M.S.B.H. Use
Class ☐
S. I. C. 2491
Ad. info. re. ☐

Please Type or Print:

1. County in which industry is located: LOWNDES
2. Name of industry: KERR-McGEE CHEM. CORP., FOR. PROD. DIV.
3. Address of industry: COLUMBUS, MISS
4. Product(s) manufactured: WOOD CROSSTIES + POLES
5. Person completing form: (a) Name PC GASKIN
   (b) Title SUPR., QUAL. CONT. (c) Organization SAME
6. Volume of waste generated (express in cubic feet and include solids or sludge from wastewater treatment or air pollution control equipment, and all other solid wastes and liquid wastes being disposed of on land.)
   (a) Average daily 220 EST. (b) Maximum daily 260 EST.
7. Normal periods of operation of the industry: (a) Hours/day 24
   (b) Days/week 6 (c) Weeks/month 52 (d) Months/year 12
8. Composition of the waste WOOD BLOCKS, CHIPS, DUST, POLE ENDS, DRY SLUDGE FROM WASTEWATER TREATMENT
9. Other characteristics (a) Percent water N/A (b) Specific gravity N/A
   (c) Solubility in water (ambient air temperature range) N/A
10. Present disposal site: (a) Owner PLANT PROPERTY
    (b) Location SAME
11. Distance to present disposal site: N/A miles.
12. Annual disposal cost: UNK.
13. Is any portion of the waste treated before disposal? ☐ yes ☒ no
    If yes, describe this process in Item No. 15.
14. Is any portion of the waste salvaged or recycled? ☒ yes ☐ no
    If yes, describe this operation in Item No. 15.
15. On an attached sheet, briefly describe the raw materials utilized, the manufacturing process, the source and composition of any solids resulting from air pollution control and wastewater treatment processes, and the source and composition of any other solid wastes generated. Attach any chemical analyses, if available, of any wastes whose final disposition is land disposal.

KERR-MCGEE

COLUMBUS

Item 15:

Creosote is used as the preservative in pressure treating wood crossties, lumber and poles.

The sludge accumulating from the dewatering beds are raked after drying for about three (3) months. This sludge and sand amounts to only about six (6) cubic feet (EST) every three (3) months.

The remaining waste is the wood resulting from the manufacture of crossties and poles. Approximately 2/3 rds. (EST) of this amount is re-cycled either as fuel or for sale as pulp.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET
ATLANTA, GEORGIA 30365

DEC 3 1987

4WD-RCRA

Mr. Sam Mabry, Director
Hazardous Waste Division
Bureau of Pollution Control
Mississippi Department of Natural Resources
Post Office Box 10385
Jackson, Mississippi 39209

RE: New Supplier of Liability Insurance Coverage

Dear Mr. Mabry:

EPA, Region IV received the enclosed letter stating this company is now offering liability coverage for Treatment, Storage and Disposal (TSDs) facilities operating under Resource Conservation and Recovery Act.

If you have any questions, please contact J. R. Finney II of my staff at (404) 347-7603.

Sincerely yours,

Doyle I. Buttram

James H. Scarbrough, P.E.
Chief, RCRA Branch
Waste Management Division

Enclosure

cc/enclosure:
Chuck Estes, MS Bureau of Pollution Control

United Coastal Insurance Company
One Corporate Center
Hartford, Connecticut 06103
(203) 560-1670

November 20, 1987

EPA Region IV
Hazardous Waste Management Division
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Sir:

The purpose of this letter is to inform you and your staff of the availability of sudden accidental liability insurance for hazardous waste storage and treatment facilities. The policy limits are $1 million per occurrence and $2 million annual aggregate, exclusive of legal defense costs.

For more information please contact:

Mr. Frank Craemer
United Coastal Insurance Co.
One Corporate Center
Hartford, Ct. 06103

(203) 560-1670

Sincerely yours,

Stuart A. Kessler
President

SAK/c

United Coastal
Insurance Company
One Corporate Center
Hartford, Connecticut 06103
(203) 560-1670

NCS

November 20, 1987

EPA Region IV
Hazardous Waste Management Division
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Dear Sir:

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For more information please contact:

Mr. Frank Craemer
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One Corporate Center
Hartford, Ct. 06103

(203) 560-1670

Sincerely yours,

Stuart A. Kessler
President

SAK/c

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

November 6, 1987

Nancy E. Jones
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Dear Ms. Jones:

I am writing to document your phone conversation with David Farris of Tuesday, November 3, regarding your comments on the Post-Closure Plan for the Kerr-McGee Chemical Corporation, Forest Products Division (KMCC-FPD) Columbus, Mississippi facility. KMCC-FPD feels that the proposal to establish a contamination detection criterion above the analytical detection limit for the K001 constituent chemicals is justified based upon previous experience with similar groundwater monitoring systems at other wood treating facilities.

The primary reason KMCC-FPD suggests a total K001 constituent level of 150 ppb in one well for one sampling event as a determinant of groundwater contamination is that our experience has been that the irregular presence of one or two constituents at levels slightly above detection limits is not a reliable indi- cator. We have observed several cases in which a sampling event which revealed some low level of one or two constituents will trigger a full scale groundwater assessment which does not ultimately support the original conclusion.

The level we suggested, 150 ppb, is proposed from our knowledge of historical groundwater monitoring data at other facilities. When contamination is detected and later confirmed, it inevitably appears at levels considerably higher than 150 ppb. We feel that this concentration of total K001 constituents is a conservative indicator of contamination at the Columbus facility.

Thank you very much for your patience and willingness to consider our proposal. Please feel free to call me at 405/270-2391 should you have any questions. We will wait until we receive a final determination from your office on this point before we submit the changes to the Post-Closure Plan which you requested in your letter of October 16.

DIVISION OF SOLID WASTE
REVIEWED BY _____
DATE _____
COMMENTS Sent a copy to EPA 11-9-87

Sincerely,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

Jeffrey H. Bull, Manager
Environmental Control and
Regulatory Affairs

JHB:wpc

cc: E. L. Creekmore
S. M. Logan
J. H. Bull
J. K. Roseman

FOREST PRODUCTS
0922C

Engineering Plus

Planning • Surveying • Testing • Landscape Architecture

1724-B 23rd. Ave. Meridian, Mississippi 39301 (601) 693-4234

October 20, 1987

Mr. E. L. Creekmore, Plant Superintendent
Kerr-McGee Chemical Corporation
P. O. Box 906
Columbus, MS 39701

RE: ENGINEERING SITE SURVEY
COLUMBUS PLANT

Dear Mr. Creekmore:

In accordance with your field services agreement with Engineering Plus, Inc. I made a site survey of the closed hazardous waste lagoon impoundment. This was a visual observation primarily to address the issue of subsidence but also making a general inspection of the site. The following were my observations:

1. The enclosed site is a well graded, well drained area encompassing approximately four times as much area as the impoundment lagoon.
2. The site is covered to a depth of approximately six inches with a graded gravel.
3. Drainage occurs along the southeastern edge of the impoundment lagoon and along the northwestern edge of the impoundment lagoon. Drainage is to the northeast.
4. The entire area is within a chain link fence with a locked gate.
5. There has been some vehicular traffic on the lagoon impoundment. This has caused rutting and in several instances turning movements have displaced the gravel to a point where the backfill material is exposed. This could cause erosion problems and should be corrected.
6. Along the southeastern portion of the impoundment area the shoulder of the ditch has been disturbed by vehicular traffic and has caused erosion in approximately four places.
7. There has been no subsidence in the lagoon impoundment fill.
8. The entire site is well kept, well drained and in excellent condition. There is no evidence at all of any leakage from the impoundment lagoon.

As you and I discussed on Tuesday, October 13, 1987, you will insure that vehicular traffic is kept off of the impoundment area and that the ruts and tracks are well graded and smoothed over. Other than these minor erosions and vehicular traffic problems, the site is in excellent condition and should not be any problem in the near future.

Yours very truly,

Richard A. Dixon

Richard A. Dixon, P.E.
MS Registration No. 4343

RAD:bg

cc: Mississippi Bureau of Pollution Control
Attn. MS Nancy Jones

APPENDIX D

DEED DOCUMENTATION

ADDENDUM TO WARRANTY

CONTROLLED INDUSTRIAL WASTE DISPOSAL SITE DESIGNATION

KNOW ALL MEN BY THESE PRESENT:

THAT, for the purposes of complying with Part 265 of the Mississippi Department of Natural Resources, Bureau of Pollution Control, Hazardous Waste Management Regulations, Kerr-McGee Chemical Corporation, Forest Products Division, designates the following non-commercial controlled industrial waste site in Lowndes County, Mississippi:

Commencing at point marking the Southwest corner of Lot 5, Block 2, Industrial City Addition, as recorded in Plat Book 1, Page 52 of the Lowndes County Chancery records, Lowndes County, Mississippi; run thence South 78 degrees 8 minutes East 327.7 ft. to the POINT OF BEGINNING of the herein described tract:

Run thence South 48 degrees 47 minutes East 73.6 ft. to a point;
Run thence South 44 degrees 03 minutes West 333.2 ft. to a point;
Run thence South 76 degrees 31 minutes West 35.6 ft. to a point;
Run thence North 47 degrees 27 minutes West 105.2 ft. to a point;
Run thence North 04 degrees 14 minutes East 46.9 ft. to a point;
Run thence North 57 degrees 49 minutes East 335.2 ft. to the POINT OF BEGINNING, containing 0.96 acres, more or less, and being situated in the SW/4 of Section 10, Township 17 South, Range 18 West, Lowndes County, Mississippi.

The area described above by metes and bounds is a closed disposal site for controlled industrial waste. The waste previously deposited therein was hazardous, consisting of bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol, EPA Code K001. The waste was removed in accordance with closure plan approved by The Mississippi Department of Natural Resources, Bureau of Pollution Control. However, some soil contaminated with constituents of the waste remains in place. Therefore, use of this land is restricted under 40 CFR 265.117(c) for 30 years after the date of completing closures.

The survey plat of the closed site and a record of the type, location and quantities of waste deposited of on this property has been filed with the Mississippi Department of Natural Resources, Bureau of Pollution Control.

The site owner and operator is Kerr-McGee Chemical Corporation, Forest Products Division, P.O. Box 25861, Oklahoma City, Oklahoma 73125.

ATTEST:

Don Hager

Don Hager, Assistant Secretary

KERR-McGEE CHEMICAL CORPORATION

By A.L. Martin

A.L. Martin, Vice President

STATE OF OKLAHOMA)
) SS
COUNTY OF OKLAHOMA)

On the 9th day of March, 1987, personally appeared before me A.L. Martin, who, being by me duly sworn, did say, that he is the Vice President of Kerr-McGee Chemical Corporation, and that said instrument was signed in behalf of said corporation by authority of its by-laws, and said Don Hager, Assistant Secretary, acknowledged to me that said corporation executed same.

M. Kaye Rice
Notary Public

My Commission Expires:
Nov. 12, 1990

This report relates only to the data specified above and does not extend to the financial statements of the Company, taken as a whole, for the year ended December 31, 1985. It is furnished solely for the use of the Company and the Company's distribution to the Mississippi Department of Natural Resources and is not to be used for any other purposes.

Very truly yours,

Arthur Andersen & Co.

FILE COPY

October 16, 1987

Mr. Jeffrey H. Bull, Manager
Environmental Control and Regulatory Affairs
Kerr-McGee Chemical Corp.
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Bull:

Re: Review Comments to the
Interim Status Post Closure Plan
Columbus, Mississippi Facility
MSD990866329

I have reviewed your Interim Status Post Closure Plan. Enclosed are my comments. Please submit the additions and/or modifications on or before November 6, 1987, such that it can be inserted into the Post Closure Plan.

(1) Kerr McGee has proposed that the total K001 constituents in any well must be greater than 150 ppb for one sampling event for that well to be declared contaminated the test methods listed in EPA Test Methods for Evaluating Solid Waste SW846 should be used in determining detection limits. (Page 11)

(2) All references to 40CFR 264 needs to be changed to Mississippi Hazardous Waste Management Regulations (MHWMR) Part 264. (Page 11)

If you have any questions or comments, please contact me at (601) 961-5171.

Sincerely,

Nancy E. Jones
Hazardous Waste Division

NEJ:sae
cc: James Scarbrough, EPA

FILE COPY

October 7, 1987

Mr. James H. Scarbrough, Chief
Residuals Management Branch
Environmental Protection Agency
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Dear Mr. Scarbrough:

Re: Kerr-McGee Chemical Corporation
Columbus, MS
EPA I.D. No. MSD990866329

Enclosed are the following document(s) for your review:

A. Groundwater Assessment Plan
Kerr-McGee Chemical Corporation
Columbus, MS

B. Interim Status
Post Closure Care Plan
Kerr-McGee Chemical Corporation
Columbus, MS

If additional information is needed, please contact Nancy E. Jones of my staff at (601) 961-5171.

Sincerely,

Charles Estes, P.E., Coordinator
Hazardous Waste Division

CE:NEJ:dmh
Enclosures

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

September 2, 1987

Chuck Estes
Mississippi Bureau of Pollution Control
2380 Highway 80
Jackson, MS 34204

Re: Kerr-McGee Corporation
Forest Products Division
Columbus, Mississippi Facility
Ground Water Monitoring Program

Dear Mr. Estes:

Pursuant to State and Federal regulations, this letters serves to notify the Mississippi Bureau of Pollution Control (MBPC) of the detection of groundwater contamination at the Kerr-McGee Chemical Corporation, Forest Products Division (KMCC-FPD) Columbus, Mississippi Facility. The groundwater contamination has been detected as a result of the quarterly groundwater monitoring program for the K001, Appendix VII hazardous waste constituents. KMCC-FPD will submit a formal groundwater assessment plan no later than September 25, 1987. The assessment plan will be designed to identify the extent and level of the contamination at the facility. As part of the planning process, KMCC-FPD proposes that a meeting be held in the MBPC Jackson,Mississippi office during the week of September 14, 1987 to discuss a draft proposal.

In accordance with post closure care requirements, KMCC-FPD will also submit a formal post closure care plan by September 25, 1987. The plan will be implemented immediately upon MBPC approval. It is understood that this initial post closure care plan may be amended as part of the final post closure permitting process for the facility.

I will contact you in the immediate future to establish a meeting time to discuss the assessment plan. In the meantime should you have any questions do not hesitate to contact me at 405-270-2391.

Sincerely,

Kerr-McGee Chemical Corporation
Forest Products Division

Jeffrey H. Bull
Manager Environmental Control and Regulatory Affairs

JHB:wpc
cc: E. L. Creekmore
J. K. Roseman
S. M. Logan

Forest Products
0806C

KERR-McGEE CHEMICAL CORPORATION
P.O. BOX 906 • COLUMBUS, MISSISSIPPI 39701

July 23, 1987

Ms. Undine Johnson
Bureau of Polution Control
Hazardous Waste Division
P.O. Box 10385
Jackson, MS 39209

Dear Ms. Johnson,

RE: Kerr McGee Chemical Corporation
MSD 99066329
Inspection of June 24, 1987

As I stated during your inspection of our facility, our warning signs were on backorder. The signs arrived and were posted on July 13, 1987. Please find attached my Post-Closure Care Inspection Report verifying they arrived.

If you have any further questions, or if I may be of any further assistance, please don't hesitate to contact me at (601) 328-7551.

Regards,

E.L. Creekmore

E.L. Creekmore
Plant Superintendent

ELC/clv

enclosure

Jul. 23, 1987

Ms. Ursline Johnson
Bureau of Pollution Control
Hazardous Waste Division
P.O. Box 10385
Jackson, Ms 39209

Dear Ms. Johnson:

Re: Kerr-McGee Chemical Corporation
MSD 990663 29
Inspection of June 24, 1987

As I stated during your inspection of our facility, our warning signs were on back order. The signs arrived and were posted on July 13, 1987. Please find attached my Post-Closure Care Inspection Report verifing their arrival.

If you have any questions or if I may be of any further assistance, please don't hesitate to contact me at (601) 328-7551

Regards,

E. L. Creekmore
Plant Superintendent

FIGURE 4-1
POST-CLOSURE CARE INSPECTION REPORT
KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION
COLUMBUS, MISSISSIPPI

INSPECTION ITEM	CONDITION (/) GOOD	NEEDS ATTENTION (Describe)	MAINTENANCE PERFORMED
IMPOUNDMENT CAP AND COVER			
GRAVEL	/		
ROCK	/		
CLAY	/		
GROWTH OF PLANTS	/		
PRESENCE OF STANDING WATER	/		
SECURITY DEVICES			
FENCE	/		
LOCKS	/		
WARNING SIGNS	/		
GROUNDWATER MONITORING WELLS			
CAP	/		
CASING	/		
CONCRETE COLLAR	/		

REMARKS Warning signs arrived and installed today

E. L. Cockman 7/13/87
SIGNATURE DATE

FILE COPY

July 16, 1987

Mr. E. L. Creekmore
Kerr-McGee Chemical Corporation
P. O. Box 906
Columbus, Mississippi 39701

Dear Mr. Creekmore:

Re: Kerr-McGee Chemical Corporation
MSD99066329
Inspection of June 24, 1987

On June 24, 1987, an inspection was conducted at the above stated facility.

No Class I violations were found, however, warning signs had not been posted on the closed unit as required by the State approved closure plan. You informed me that these signs had been ordered and would be posted as soon as shipment was received.

We request that the Bureau be notified in writing once this has been accomplished.

A copy of the checklist is enclosed.

If you have any questions, please contact me at (601) 961-5171.

Sincerely,

Undine Johnson
Hazardous Waste Division

UJ:eb
Enclosure

FILE COPY

December 5, 1986

Mr. Jeffrey H. Bull, Manager
Environmental Control and Regulatory
Kerr-McGee Chemical Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Bull:

Re: Comprehensive Groundwater
Monitoring Evaluation (CME)
Kerr-McGee Chemical Corporation
Columbus, Mississippi
MSD990866329

On August 11, 1986, a Comprehensive Groundwater Monitoring Evaluation (CME) was performed at the above referenced facility. This evaluation was conducted to determine the adequacy of the facility's groundwater monitoring system with respect to the requirements of Mississippi Hazardous Waste Management Regulations (MHWMR) Part 265, Subpart F. Enclosed is a copy of the CME Report. No deficiencies or violations were found as a result of this evaluation.

If you should have any questions or if you should require any additional information, please contact me at (601) 961-5171.

Sincerely,

David J. Bockelmann
Hazardous Waste Division

DJB:lr
Enclosure
cc: Mr. G. Ross Harrod, Kerr-McGee (w/enclosure)
Mr. James H. Scarbrough, EPA (w/enclosure)

ADEM

ALABAMA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

George C. Wallace
Governor

1751 Federal Drive
Montgomery, AL
36130
205/271-7700

Field Offices:

P.O. Box 953
Decatur, AL
35602
205/353-1713

Unit 806, Building 8
225 Oxmoor Circle
Birmingham, AL
35209
205/942-6168

4358 Midmost Drive
Mobile, AL
36609
205/343-7841

June 4, 1986

CERTIFIED MAIL P 702 330 914
RETURN RECEIPT REQUESTED

Ms. Beverly Johnson
Presley Construction, Inc.
P.O. Box 46
Shuqualak, Mississippi 39361

Dear Ms. Johnson:

RE: Notice of Violation

Between May 19, 1986 and May 27, 1986, inspectors from the Alabama Department of Environmental Management's Hazardous Waste Branch observed Presley Construction, Inc., delivering shipments of hazardous waste, specifically K001 waste generated by Kerr McGee Corporation, Columbus, Mississippi, to the Chemical Waste Management, Inc., Emelle, Alabama facility.

Based on the above observation you have violated the following Alabama Department of Environmental Management, Division 14, Administrative Code Rule:

Rule 14-4-.01(2)(c) A non-rail transporter must not transport hazardous wastes without having received an Alabama Hazardous Waste Transporter Permit in compliance with Rules 14-8-.09 through 14-8-.13.

You are directed to immediately cease all hazardous waste transportation activity in the State of Alabama until such time that you have applied for and received an Alabama Hazardous Waste Transporter Permit.

Questions regarding this matter should be directed to Mr. Joe Brewer at (205) 271-7737.

Sincerely,

Daniel E. Cooper, Chief
Land Division

DEC/JB/sjw

cc: Mr. Allan Antley
USEPA Region IV

Mr. Jack McMillan
Mississippi Department of
Natural Resources

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: Hazardous Waste TSD Facilities, KERR-McGEE, Columbus

FROM: John M. Lister

SUBJECT: Annual Closure Cost Estimate Update

DATE: March 24, 1986

1. The closure cost estimate must be updated by May 19, 1986. This estimate must be submitted to this office by May 28, 1986.

2. Financial assurance mechanism must be updated as follows:

   A. Facilities that use the Financial Test must resubmit financial information incorporating the closure cost estimate update within 90 days after the end of their fiscal year;

   B. Facilities that use the Trust Fund must update Schedule A of the Trust Fund by July 18, 1986. Annual payments into the Trust Fund must be made by December 1, 1986.

   C. Facilities that use the Surety Bond must increase the amount of the bond and submit evidence of such increase to our office or obtain alternate financial assurance by July 18, 1986.

   D. Facilities that use the Letter of Credit must cause the amount of the credit to be increased so that it at least equals the current closure cost estimate and submit evidence of such increase to our office or obtain other financial assurance by July 18, 1986; and

   E. Facilities that use Closure Insurance must either cause the face amount of the insurance to be increased to the current closure cost estimate and submit evidence to our office or obtain other financial assurance by July 18, 1986.

To update your closure cost estimate, you must multiply the current closure cost estimate (1985 estimate) times 1.033. The new figures will become the updated closure cost estimate for which you must demonstrate financial assurance.

Example:

Original closure cost estimate - $10,000 (1981)
1982 update $10,000 x 1.09 = $10,900
1983 update $10,900 x 1.07 = $11,663
1984 update $11,663 x 1.04 = $12,130
1985 update $12,130 x 1.038= $12,594
1986 update $12,594 x 1.033= $13,009

Should you have any questions, please contact me at (601) 961-5171.

JML:hdb

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

November 13, 1985

CERTIFIED-RETURN RECEIPT REQUESTED

Mr. Jack McMillan, Director
Division of Solid/Hazardous Waste Management
Mississippi Department of Natural Resources
2380 Hwy. 80 West
Jackson, MS 39209

RE: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, Mississippi
EPA MSD 990866329
Groundwater Monitoring/Financial
Assurance Certification

Dear Sir:

Enclosed please find a copy of the topographic map for the Kerr-McGee Chemical Corporation, Forest Products Division, Columbus, Mississippi, facility indicating the location of the two hazardous waste impoundments for which a groundwater monitoring/financial assurance certification statement was submitted on November 8, 1985. The topographic map is being submitted in response to your letter dated November 1, 1985, regarding your request for information pursuant to 3007 of the Resource Conservation and Recovery Act.

In the event that you should need any additional information, do not hesitate to call me at 405/270-2391.

Sincerely,

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

Jeffrey H. Bull
Manager, Environmental &
Regulatory Affairs

JHB:jw
Enclosure

cc: B. W. Boisseau
J. C. Stauter
S. M. Logan

KM FOREST PRODUCTS

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

November 8, 1985

CERTIFIED-RETURN RECEIPT REQUESTED

Mr. Jack McMillan, Director
Division of Solid/Hazardous Waste Management
Mississippi Department of Natural Resources
2380 Hwy. 80 West
Jackson, MS 39209

Re: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, MS Facility
EPA MOD 990866329
Groundwater Monitoring/Financial
Assurance Certification

Dear Sir:

Enclosed please find a copy of the groundwater monitoring/financial assurance certification statement for the Kerr-McGee Chemical Corporation, Forest Products Division, Columbus, MS Facility in compliance with the Loss of Interim Status Provisions of the 1984 RCRA Amendments. The certification statement was prepared utilizing state and federal guidance memoranda. In the event that you should need any additional information,do not hesitate to call me at 405/270-2391.

Sincerely,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

Jeffrey H. Bull
Manager, Environmental &
Regulatory Affairs

JHB/jl

cc: B. W. Boisseau, Columbus Facility
J. C. Stauter
S. M. Logan

FOREST PRODUCTS

GROUNDWATER MONITORING/FINANCIAL ASSURANCE
CERTIFICATION STATEMENT

I, Kerr-McGee Chemical Corporation-Forest Products Division, am the owner/operator of Facility # MSD 990866329 (EPA ID #) location at Columbus, MS. I certify that the 2 Hazardous Waste Storage Impoundments

(name of unit(s) as identified on the attached surface topography map) at this facility are in compliance with: (1) All applicable groundwater monitoring and financial responsibility requirements in 40 CFR Part 265 Subparts F and H; or (2) all applicable State groundwater monitoring and financial responsibility requirements which are part of the State's authorized hazardous waste program under Section 3006 of RCRA.

I, Kerr-McGee Chemical Corporation-Forest Products Division, as owner-operator of Facility # MSD 990866329 located at Columbus, MS, knowingly and willfully make this true and accurate certification to the United States Environmental Protection Agency pursuant to Section 3005(e) of the Hazardous and Solid Waste Disposal Act, as amended.

11/6/85
(Date)

A. L. Martin
Vice President & General Manager

McCraw - MBPC

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

July 12, 1985

FEDERAL AIR EXPRESS

Mr. Donald G. McCraw
Hazardous Waste Section
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. McCraw:

Ref: Kerr-McGee Chemical Corporation
Columbus Facility

This letter is in response to the alledged deficiencies found during a hazardous waste compliance inspection of the referenced facility on June 27, 1985.

The alledged deficiencies and Kerr-McGee's response to each are as follows:

1. Part 265.16(d)(3) - A written description of the type and amount of both introductory and continuing training that will be (or has been) given to each person filling a position listed under paragraph (d)(1) of Part 265.16 must be submitted by July 15, 1985.

   Response

   All HW Coordinators at the Columbus Facility have received the introductory and annual reviews of the initial training required in 265.16. Training sessions are conducted annually to ensure the HW Coordinators and operators will respond effectively to emergencies. Please refer to the enclosed Personnel Training Plan. Subjects addressed during the sessions include:

   - Contingency plan and spill reporting procedures
   - Security and inspections
   - Procedures for care and maintenance of emergency and monitoring equipment
   - Shut down procedures including waste feed cut-off procedures
   - Response to fires or explosions
   - Groundwater Monitoring

The Facility HW Coordinator and alternates have successfully completed a True/False test on the above topics which is on file in the plant records as confirmation of training.

B. W. Boisseau, Facility HW Coordinator, received the introductory training while assigned as Superintendent, Kerr-McGee Chemical Corporation, Kansas City, Missouri Facility. Mr. Boisseau's personnel training records have been transferred to the Columbus Facility's file.

2. Part 265.16(a)(2) - Proof of training of the Hazardous Waste Management Director and Instructor at this facility must be submitted by July 15, 1985.

   Response

   Enclosed are training records extracted from the Facility file showing the dates of training and topics covered as proof of training of the Facility HW Coordinator.

3. Part 265.16(b) & (c) - Documentation to substantiate compliance with these two sections must be submittted by July 15, 1985.

   Response

   Enclosed is a chart of the personnel training conducted since 1981 and a copy of this year's True/False test used as confirmation of training.

   All facility HW Coordinators will attend an annual personnel training session on July 29, 1985. The training session outline of topics covered, and completed exams will be kept on file at the facility.

4. Submit a new schedule with revised dates for the actual closure process.

   Response

   A revised schedule for closure of the two impoundments is enclosed.

Should you have any questions, please contact me at 405/270-2395.

Yours truly,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. Gaskin
Environmental & Quality Control

PCG:jl

cc: B. W. Boisseau
W. J. Broussard
J. H. Bull
D. G. Hoffman

REVISED
IMPOUNDMENT CLOSURE
TIME SCHEDULE

Kerr-McGee Chemical Corporation
Forest Products Division
Columbus Facility
EPA I.D. No. MSD 990866329

1985

February 8	KMCC received final approval of closure plan from MBPC.
March 22	KMCC lets contract to commence construction of new wastewater treatment system (WWTS).
April 4	KMCC receives revised wastewater pretreatment permit from MBPC.
July 1	WWTS construction project 85% complete.
July 15	Discharge sewer main from WWTS connected to POTW. Discharge clean (tap) water through new WWTS for discharge to impoundment. Check out flows and equipment functions using clean water.
August 1	Begin operational tests of new WWTS. Sample and analyze discharge for compliance with pretreatment permit.
September 1	Final discharge of water to surface impoundments. Notify MBPC and POTW. Begin discharge of pre-treated water to POTW.
	Begin dewatering impoundments by discharging the water to the POTW.
October 15	Complete removal of recoverable creosote from ponds for reuse in the production process.
December 1	Complete removal of bottom sludge, contaminated soil. Ship off-site to an approved landfill. Interim inspection by P.E. for compliance with plan.

1986

January 1	Complete leveling, grading and compacting closed site for use as tie storage area.
February 1	Final inspection. Notify MBPC and provide certifications of closure.

Columbus Facility
Personnel Training Plan
Forest Products Division
Kerr-McGee Chemical Corporation

INTRODUCTION:

This training program has been designed and implemented to ensure that all applicable key facility personnel and hazardous waste coordinators are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including:

1. Procedures for using, inspecting, repairing and replacing emergency and monitoring equipment.

2. Communications and alarm systems.

3. Response to fire or explosions.

4. Response to groundwater contamination incidents.

5. Shutdown of operations.

TRAINING PROGRAM

Hazardous waste coordinators and other key facility personnel have completed the program required by 40 CFR 265.16. New employees or new assignments will not work in unsupervised positions until they have completed the training requirements.

The Facility Hazardous Waste Coordinators and key facility personnel will take part in an annual review of the initial training.

The Superintendent and/or Principal Hazardous Waste Coodinator will maintain the following records:

1. Job title for each position related to hazardous waste management, and the name of the employee filling the job. Refer to the appendix.

2. Written job description for each position. Refer to appendix.

3. Written description of type and amount of both introductory and continuing training. Refer to memos documenting training sessions.

4. Records that document training. Refer to memos documenting training sessions.

PLANT CLOSURE/EMPLOYEE TERMINATION

Training records on current personnel will be kept until closure of the facility. Training records on former employees will be kept for at least three years. Personnel training records will accompany personnel transferred with the company.

APPENDIX

Job title for each position related to hazardous waste management, name of employee filling the job, and job description.

Manager/Superintendent - B. W. Boisseau

Principal Hazardous Waste Coordinator, responsbile for all plant operations with the authority to commit the resources needed to carry-out the contingency plan.

Assistant Manager/Superintendent - Paul Compton

First alternate Hazardous Waste Coordinator, assistant to the Plant Manager/ Superintendent, with the authority to commit the resources needed to carry-out the contingency plan in the absence of the Principal Harardous Waste Coordinator.

Supervisor,
Treatment and Quality Control - Don Getz

Second alternate Hazardous Waste Coordinator, assists the Principal and First Alternate Coordinators in implementing resources needed to carryout the contingency plan.

KERR-McGEE CHEMICAL CORPORATION
INTERNAL CORRESPONDENCE

TO P. C. Gaskin

DATE January 20, 1981

FROM D. G. Hoffman

SUBJECT RCRA Kansas City

During a recent visit to the Kansas City Plant, a meeting was held with B. W. Boisseau and Henry Jarvis involving RCRA regulations. This meeting was held as a training session for the plant on the RCRA regulations. The following topics were covered in the meeting.

1. What RCRA is about.
2. A review of the application and interim status.
3. A review of the security plan and check list.
4. A review of the contingency plan.
5. Definition of a solid and hazardous waste.
6. Definition of a spill and/or catastrophe.
7. Emergency coordinator and his duties.

The meeting was held on January 13, 1981.

The acquiring of bids for the fencing of the lagoon has begun. Two bids have been received and we are now waiting for the third bid.

D. G. Hoffman

Assist. Supervisor
Environmental Control
Forest Products Division

KERR-McGEE CORPORATION
INTERNAL CORRESPONDENCE

TO P. C. Gaskin

DATE April 14, 1981

FROM T. L. Bentley

SUBJECT RCRA Personnel Training
Kansas City, Missouri

On March 16, 1981, T. L. Hurst and I conducted a training session at the Kansas City, Missouri Forest Products Division (FPD) plant. This session was attended by:

- B. W. Boisseau - Plant Manager
  Kansas City, Missouri Plant
  Kerr-McGee FPD
- D. G. Hoffman - Assistant Supervisor,
  Environmental and Quality Control
  Kerr-McGee Corporation
  Indianapolis, Indiana
- T. L. Bentley - Sr. Staff Environmental Engineer
  Environmental Affairs Department
  Kerr-McGee Corporation
  Oklahoma City, Oklahoma
- T. L. Hurst - Vice-President Environmental Affairs
  Kerr-McGee Corporation
  Oklahoma City, Oklahoma

The training session addressed the following topics:

- An overview of RCRA
- Definition of Hazardous Waste
- Explanation of Interim Status Standards
- Waste Analysis Plan
- Inspections
- Security
- Contingency Plans
- Personnel Training
- Groundwater Monitoring
- Closure and Post-Closure Plans
- Reporting
- Manifesting

This training session partially fulfilled the requirements of the RCRA Interim Status Standards for personnel training (40 CFR 265.16). This memo documents the training and a copy must be placed in the file at the Kansas City plant.

Any additional training which has been conducted or will be conducted by yourself, Don Hoffman, B. W. Boisseau, or Corporate personnel must also be documented and a copy placed in the plant file.

T. L. Bentley
Sr. Environmental Engineer
Kerr-McGee Corporation

cm

cc: W. J. Broussard
T. L. Hurst

KERR-McGEE CORPORATION
INTERNAL CORRESPONDENCE

TO T. L. Hurst DATE February 15, 1983

FROM J. C. Stauter SUBJECT RCRA Personnel Training

On February 14, 1983 I conducted a RCRA personnel training session in accordance with 40 CFR 265.16 for Mr. Bobby Boisseau, Forest Products Division Kansas City facility superintendent. The training session covered the following topics:

Overview of RCRA
Waste Analysis Plan
Security and Inspections
Contingency Plan and Spill Reporting Procedures
Operating Records
Closure/Post-Closure Plans
Personnel Training
Groundwater Monitoring

Mr. Boisseau completed a True/False test over the above topics which will be on file in the plant records as confirmation of training. An extra exam and training outline were given to Mr. Boisseau to use in training other employees at Kansas City.

John

J. C. Stauter
Sr. Environmental Engineer
Kerr-McGee Corporation

JCS:cr

cc: P. C. Gaskin ✓
B. Boisseau

W. J. Broussard

May 31, 1984

P. C. Gaskin

RCRA 1984 Annual Training - Columbus

On May 24, 1984, I conducted the RCRA 1984 annual personnel training for the hazardous waste coordinators at the Columbus Facility. In attendance for the training were:

B. W. Boisseau	-	Plant Superintendent and Facility HW Coordinator
Paul Compton	-	Assistant HW Coordinator
Neal Lollar	-	" " "
Don Getz	-	" " "

In conducting the annual training I used the (1) attached outline of the subjects that were covered and (2) the 1984 RCRA Facility Personnel Training Examination with explanatory answer sheet.

The training outline, completed exam, and a copy of this memo will be kept on file at the facility until the HW regulated areas are closed.

Original Signed By
PETER C. GASKIN

P. C. GASKIN

PCG:rc

cc: B. W. Boisseau
D. G. Hoffman
E. T. Still

KERR-McGEE CORPORATION
RCRA FACILITY PERSONNEL TRAINING EXAMINATION

1985

Name: _____

Job title: _____

Date: _____

Facility: _____

Signature of trainer: _____

Answer the following questions as true (T) or false (F):

B*	A		
( )	( )	1.	EPA identifies the facilities which generate RCRA hazardous wastes. A plant is considered out of the RCRA system until notified by EPA.
( )	( )	2.	EPA realizes that accidental spills of hazardous materials and wastes will occur during normal plant operations. Such spills must only be reported if they are sufficiently large to get outside the facility property line.
( )	( )	3.	Congress adopted amendments to RCRA in 1984. Changes made include eliminate requirements for plants to self inventory and determine if HW is present.
( )	( )	4.	An inspection log for any area in which hazardous waste is stored, even if less than 90 days, must be maintained including the date, time of day, any observations and actions taken, and signature of the inspector.
( )	( )	5.	Once an individual has done several inspections of hazardous waste areas and is familiar with the requirements he need not note each inspection but only those where a problem exists.
( )	( )	6.	A new employee who will work with hazardous wastes must receive training covering the RCRA plant requirements prior to taking on duties not requiring accompanying supervision.

*B - Before Training Class
A - After Training Class

( ) ( ) The plant is required to have a contingency plan which outlines the steps to be taken in case of a spill or accident involving hazardous materials. The plan lists those responsible for emergency actions, lists available emergency equipment and their locations, and provides phone numbers of agencies to be notified.

( ) ( ) 8. Once a contingency plan has been prepared no updates are required to keep it current.

( ) ( ) 9. The plant operating record contains the current disposal plan, completed inspection logs, contingency plan, copies of waste shipment manifests returned from the disposal facility, and copies of waste generation reports to appropriate state or federal authorities.

( ) ( ) 10. A short-term (under 90 day) HW generator must store HW in tanks or containers which are properly labeled and log the date where empty tank or container first received HW.

( ) ( ) 11. All those receiving RCRA facility personnel training are required to be familiar with the contingency plan.

( ) ( ) 12. Disposal of any hazardous waste must be at an approved hazardous waste disposal site. If off-site the waste must be manifested to identify the material and destination.

( ) ( ) 13. For off-site shipments of HW, the generator facility must certify the waste is properly packaged, marked, labeled, described, and classified in accordance with Department of Transportation and Environmental Protection Agency rules.

( ) ( ) 14. The generator (facility) may use a signature stamp when completing the manifest.

( ) ( ) 15. The Federal Uniform Hazardous Waste Manifest must be used with all shipments of HW off-site. If more than four items are going with the shipment a continuation sheet is used.

( ) ( ) 16. The Uniform Hazardous Waste Manifest may not be modified by State agencies and is restricted to information required by the U. S. Environmental Protection Agency.

( ) ( ) 17. The EPA Manifest is considered a Department of Transportation shipping paper under DOT rules and is checked by both EPA and DOT inspectors.

( ) ( ) 18. The original copy of manifest when signed by the disposal facility must be returned to the generator and retained in his files for a period of at least 6 months from the date the waste was accepted for transport.

( ) ( ) 19. The transporter who receives a shipment of hazardous waste is not responsible for insuring that proper containers are used but is responsible for the labels and marks on those containers as well as providing placards for the vehicle which identifies the waste being transported.

( ) ( ) 20. Hazardous waste is regulated by State Environmental Agencies and the U. S. Environmental Protection Agency, therefore, shipments will not be checked by Department of Transportation inspectors when traveling on the highway.

( ) ( ) 21. The manifest must list the Treatment/Storage/Disposal (TSD) Facility to which the waste is being shipped. The receiving TSD facility must have an EPA identification number which is shown on the manifest.

( ) ( ) 22. The transporter may take the waste to an alternate disposal site not listed on the manifest if the alternate site is approved by EPA and the State Pollution Control Agency. He may not take it to a sanitary landfill.

( ) ( ) 23. A disposal site may refuse a shipment of containerized waste if it contains any "free liquid" or if its characteristics are different than described on the manifest.

( ) ( ) 24. The disposal site must always return a signed copy of the manifest to the generator certifying receipt and acceptance of waste.

( ) ( ) 25. If the plant does not receive a copy of the manifest signed by the disposal site within 60 days he should contact EPA and tell them the shipment is lost.

( ) ( ) 26. Generators are required by EPA to submit a biennual report giving the EPA identification number of each disposal facility used as well as the EPA waste code number and quantity shipped.

( ) ( ) 27. Using the manifest is EPA's main tool for tracking of waste from "the cradle to the grave."

( ) ( ) 28. Hazardous Waste generators are no longer liable if they ship HW to a RCRA disposal facility which causes environmental problems in the future.

( ) ( ) 29 Any release or incident which does or could threaten human health or the environment must be reported by emergency coordinator to appropriate local authorities and National Response Center.

( ) ( ) 30. Free liquids must be eliminated from bulk shipments of hazardous waste by November 9, 1985.

ANSWERS

1. False - The facility must regularly survey operation and determine if hazardous wastes are generated, stored, treated, or disposed on-site.

2. False - Spills of hazardous materials and wastes must be reported to the National Response Center and appropriate state hazardous waste control authorities. Notify Kerr-McGee Environmental Affairs Department first of the type and amount of a spill so that a determination of appropriate reporting response can be made.

3. False - Facility must inventory wastes to determine if composition and quantities of waste fall within definitions of RCRA amendments.

4. True - These logs must remain on file.

5. False - All inspections must be documented even though they are routine and no actions required.

6. True - Training would include use of logs, inspection criteria, etc.

7. True - This plan establishes set procedures in the event of emergency. All personnel responsible for hazardous waste management must be familiar with this plan.

8. False - Plan must be reviewed and amended immediately if applicable regulations are revised, plan fails in an emergency facility changes, or list of equipment changes or list of coordinators change.

9. True - State and EPA inspectors will review operating record for completeness.

10. True - Tanks and containers used by short-term storers of hazardous waste must be labeled with words "HAZARDOUS WASTE." Also log must be maintained showing date when waste was first placed in tanks/containers after emptying.

11. True - Personnel must be familiar with procedures for responding to releases which effect human health or the environment.

12. True - All hazardous wastes must be disposed of at secure facilities and identified as to description and destination.

13. True - C[illegible]ification is final step [illegible] preparing hazardous waste for shipment and should not be made until waste is properly identified, packaged, labeled, and marked.

14. False - Operator must use a handwritten signature when signing manifest.

15. True - All shipments of HW off-site beginning September 20, 1984 must be accompanied by completed "Uniform HW Manifest."

16. False - States are allowed to request additional information on uniform manifest. If waste travels across two or more states, only one may request additional information for the shipment.

17. True - If properly completed, the manifest can also be a DOT shipping paper.

18. False - Manifests must be retained at the facility at least three years.

19. False - The generator is responsible for having the proper packaging, labels, marks, and providing placards to the transporter for his vehicle.

20. False - The U. S. Department of Transportation and appropriate state transportation departments will check manifests and inspect containers against EPA/DOT rules when the vehicle is traveling on the highway.

21. True - The manifest is the tracking document for both generator and EPA.

22. False - Hazardous waste may only be taken to disposal sites listed on the manifest unless the transporter contacts the generator and requests a change to an alternate site. This change must be properly noted and recorded.

23. True - Disposer may return shipment to generator or send to an alternate site approved by generator.

24. True - Unless the signed manifest is returned to the generator the "cradle to the grave" tracking system is not complete.

25. False - If generator does not receive a signed copy of the manifest back in 35 days, he must contact the disposer/transporter and determine status of shipment. If waste cannot be found within 45 days, an "Exception Report" is submitted to EPA.

26. True - Generator must keep adequate records to allow completion of this report.

27. True - EPA uses manifest records to assign liability for volumes of waste disposed of at leaking sites which must be cleaned-up.

28. False - Generators <u>are</u> liable for disposal of wastes at RCRA sites if they leak or cause other environmental problems in the future.

29. True - Facility contingency plan outlines proper procedure for response to local, state and national agencies.

30. True - Also after November 9, 1985 manifest must certify that volume and toxicity of waste has been reduced to greatest extend practible.

RCRA

PERSONNEL TRAINING UPDATE

- RCRA PASSED IN 1976

- RCRA AMENDED IN 1984

- REGULATES GENERATION, HAULING, STORAGE, TREATMENT AND DISPOSAL OF HAZARDOUS WASTE

- EPA'S RCRA RAGULATIONS EFFECTIVE NOVEMBER 19, 1980

- REGULATIONS APPLY TO THIS LOCATION

- HAZARDOUS WASTES AT THIS LOCATION INCLUDE:

- WASTES HAVE HAZARDOUS CHARACTERISTICS SUCH AS:

- ALL PRESENT [redacted]UST RECEIVE ANNUAL RCRA T[redacted]INING UPDATE

RCRA

PERSONNEL TRAINING

PERSONNEL TRAINING RECORD

- INCLUDES ALL WORKING AT OR RESPONSIBLE FOR OPERATIONS INVOLVING HW GENERATOR, STORAGE, TREATMENT OR DISPOSAL
- LISTS EMPLOYEE NAME, JOB TITLE, AND JOB DESCRIPTION
- RECORDS DATE & TYPE OF TRAINING TAKEN
- MUST BE CURRENT
- KEEP UNTIL HW UNITS ARE CLOSED

TRAINING REQUIRED

- NEW EMPLOYEE - WITHIN SIX (6) MONTHS OF HIRE
- ANNUAL UPDATE BY MAY 19 OF EACH YEAR
- CLASSROOM OR ON-THE-JOB
- NEW EMPLOYEE - MUST NOT WORK IN UNSUPERVISED POSITION UNLESS TRAINING IS COMPLETED

RCRA

CONTINGENCY PLAN

- LISTS ACTIONS WHEN THERE IS AN ACCIDENTAL DISCHARGE FROM THE SITE
- LISTS EMERGENCY EQUIPMENT AVAILABLE, LOCATION, BRIEF DESCRIPTION AND HOW TO USE IT
- COORDINATOR IS:
  1st ALTERNATE:
  2nd ALTERNATE:
- COORDINTAOR MUST - WHEN EMERGENCY OCCURS:
  - DETERMINE AMOUNT OF WASTE WHICH ESCAPED AND ITS SOURCE
  - START CONTROL ACTIONS SHOWN IN PLAN
  - CALL KM ENVIRONMENTAL AFFAIRS FOR ASSISTANCE
  - REPORT (IF NECESSARY) TO NATIONAL RESPONSE CENTER (NRC)
- PLAN MUST BE CURRENT
  - NAMES & NUMBERS MUST BE UP TO DATE
  - EQUIPMENT LISTED

SPCC PLAN AND SUPERFUND REPORTING

- SPCC PLAN

  - DESCRIBES PROGRAM FOR CONTAINING SPILLS & LEAKS OF OIL (FUEL OIL, GASOLINE, ETC.)

  - MUST BE UPDATED EVERY THREE YEARS BY PROFESSIONAL ENGINEER

- SUPERFUND REPORTS

  - SPILLS OF POTENTIALLY HAZARDOUS SUBSTANCES (CAUSTIC, ACIDS, ETC.)

  - CONTACT K-M ENVIRONMENTAL AFFAIRS (K-M PROCEDURE 73.1)

RCRA

SECURITY

- FENCES WITH LOCKED GATES OR 24 HOUR SURVEILLANCE BY GUARDS
- ONLY AUTHORIZED WORKERS ARE ALLOWED TO IN THESE AREAS
- WARNING SIGNS AT EACH ENTRANCE MUST BE LEGIBLE:

DANGER: UNAUTHORIZED PERSONNEL KEEP OUT

RCRA

INSPECTIONS

- TANKS & PONDS
  - ONCE A DAY - CHECK FREEBOARD - OVER TWO FEET
  - ONCE A WEEK - LEAKS
  - INSPECTION LOG - DATE, TIME, PURPOSE, ACTIONS AND SIGNATURE OF INSPECTOR
  - INSPECTION LOGS MUST BE KEPT FOR THREE (3) YEARS AFTER USE

- DRUM STORAGE AREA
  - ONCE A WEEK - LEAKS IN DRUMS, ANY OPEN DRUMS
  - INSPECTION LOG - DATE, TIME, PURPOSE, ACTIONS AND SIGNATURE
  - INSPECTION LOGS MUST BE KEPT FOR THREE (3) YEARS AFTER USE

- OTHER
  - AS DESCRIBED IN INSPECTION PLAN

RCRA

MANIFESTS

- TRACKS WASTE FROM GENERATOR TO DISPOSAL SITE
- MANIFEST REQUIRES:
  - GENERATOR EPA I.D. # AND PLAN #
  - U.S. EPA AND DEPARTMENT OF TRANSPORTATION WASTE IDENTIFIER CODES
  - TRANSPORTER (HAULER) EPA I.D.#
  - DISPOSAL SITE (LANDFILL) EPA I.D.#
  - GENERATOR SIGNS MANIFEST AND CERTIFIES WASTE IS CORRECTLY PACKAGED FOR SHIPMENT
- WASTE TRACKING PROCESS
  - HAULER RECEIVES WASTE AND SIGNS MANIFEST
  - HAULER DELIVERS WASTE TO DISPOSAL SITE
  - DISPOSAL SITE RECEIVES WASTE AND SIGNS MANIFEST
  - DISPOSER GIVES A COPY TO HAULER AND SENDS COPY TO GENERATOR

- IF SIGNED MANIFEST COPY IS NOT RETURNED TO GENERATOR WITHIN 35 DAYS FROM DISPOSER, GENERATOR MUST CONTACT DISPOSAL SITE

- IF SIGNED MANIFEST NOT RETURNED IN 45 DAYS, GENERATOR MUST REPORT TO EPA OR STATE

RCRA

OPERATING RECORD

- REVIEWED BY STATE AND EPA INSPECTORS EVERY YEAR
- RECORD INCLUDES
  - COMPLETED INSPECTION LOGS
  - PERSONNEL TRAINING RECORDS
  - CURRENT CONTINGENCY PLAN
- RECORD ALSO INCLUDES
  - WASTE ANALYSIS PLAN WITH RESULTS OF ANY WASTE SAMPLING
  - CLOSURE PLAN FOR PONDS WITH COST ESTIMATE
  - GROUNDWATER MONITORING PLAN WITH ALL GROUNDWATER SAMPLING RESULTS
  - ALL MANIFESTS (BOTH COPIES)
- ALL PARTS OF OPERATING RECORD MUST BE KEPT IN SAME LOCATION

0120E

OUTLINE

OF

RCRA PERSONNEL TRAINING REQUIREMENTS

* FACILITY PERSONNEL RESPONSIBLE FOR OR OTHERWISE INVOLVED WITH HW STORAGE, TREATMENT OR DISPOSAL MUST SUCCESSFULLY COMPLETE AND REVIEW ANNUALLY A PROGRAM OF CLASS ROOM INSTRUCTION OR ON-THE-JOB TRAINING.

* TRAINING PROGRAM MUST TEACH PERSONNEL TO PERFORM DUTIES IN A WAY WHICH ENSURES COMPLIANCE WITH RCRA TSDF REGULATIONS BY THE FACILITY.

* TRAINING PROGRAM MUST BE DIRECTED BY PERSON TRAINED IN HW MANAGEMENT PROCEDURES.

* TRAINING PROGRAM MUST TEACH FACILITY PERSONNEL ALL THE HW MANAGEMENT PROCEDURES WHICH ARE RELEVANT TO THE POSITIONS IN WHICH THEY ARE EMPLOYED.

* TRAINING PROGRAM, AS A MINIMUM, MUST BE DESIGNED TO ENSURE PERSONNEL ARE ABLE TO RESPOND EFFECTIVELY TO EMERGENCIES BY FAMILIARIZING THEM WITH EMERGENCY PROCEDURES, EQUIPMENT AND SYSTEMS INCLUDING WHERE APPLICABLE:

OUTLINE

OF

RCRA PERSONNEL TRAINING REQUIREMENTS

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* TRAINING PROGRAM, AS A MINIMUM, MUST BE DESIGNED TO ENSURE PERSONNEL ARE ABLE TO RESPOND EFFECTIVELY TO EMERGENCIES BY FAMILIARIZING THEM WITH EMERGENCY PROCEDURES, EQUIPMENT AND SYSTEMS INCLUDING WHERE APPLICABLE:

PROCEDURES FOR USE, INSPECTION, REPAIR, AND REPLACEMENT OF PLANT EMERGENCY AND MONITORING EQUIPMENT.

CONTROLS FOR AUTOMATIC WASTE FEED CUT-OFF SYSTEMS.

COMMUNICATIONS OR ALARM SYSTEMS.

RESPONSE TO FIRE OR EXPLOSIONS.

RESPONSE TO GROUND-WATER CONTAMINATION INCIDENTS.

SHUT-DOWN OF HWM FACILITY OPERATIONS.

* THE FOLLOWING RECORDS MUST BE MAINTAINED BY FACILITY MANAGER ON-SITE:

JOB TITLE AND NAME OF EMPLOYEE FILLING EACH JOB FOR ALL POSITIONS AT FACILITY RELATED TO HW STORAGE (SHORT OR LONG TERM), TREATMENT OR DISPOSAL.

WRITTEN JOB DESCRIPTION FOR EACH JOB TITLE LISTED. AS A MINIMUM MUST INCLUDE REQUIRED SKILL, EDUCATION OR OTHER QUALIFICATIONS, AND DUTIES OF PERSONNEL ASSIGNED TO JOB.

RECORD OF SUCCESSFUL COMPLETION OF REQUIRED TRAINING AND ANNUAL UPDATES.

A WRITTEN DESCRIPTION OF TYPE AND AMDUNT OF BOTH INTRODUCTORY AND CONTINUING TRAINING WHICH WILL BE GIVEN TO EACH OF LISTED PERSONNEL.

TRAINING RECORDS ON CURRENT PERSONNEL MUST BE KEPT UNTIL CLOSURE OF THE FACILITY. FOR FORMER EMPLOYEES TRAINING RECORDS MUST BE KEPT FOR 3 YEARS FROM DATE EMPLOYEE LAST WORKED AT PLANT.

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION
COLUMBUS FACILITY

HAZARDOUS WASTE MANAGEMENT TRAINING RECORD

The names, titles, job descriptions, and training dates of the key facility employees who are trained to oversee the hazardous waste management operation at the Columbus facility are summarized below:

NAME	TITLE	JOB DESCRIPTION	INTRODUCTORY TRAINING	FOLLOW-UP COURSES
B. W. Boisseau	Superintendent	Principal hazardous waste coordinator responsible for all plant operations, with the authority to commit the resources needed to carry out the contingency plan.	01/20/81 03/16/81	02/15/83 05/31/84
Paul Compton	Assistant Superintendent	First alternate hazardous waste coordinator and assistant to the Superintendent, with the authority to commit the needed resources to carry out the contingency plan in the absence of the principal hazardous waste coordinator.	02/06/81	02/16/82 03/24/82 05/07/82 04/06/83 05/31/84
Don Getz	Supervisor, Treatment and Quality Control	Second alternate hazardous waste coordinator who assists the principal and first alternate coordinators in implementing resources needed to carry out the contingency plan.	02/06/81	02/16/82 03/24/82 05/07/82 04/06/83 05/31/84
Neal Lollar	Supervisor, Maintenance	Third alternate hazardous waste coordinator who assists the principal, first, and second alternate coordinators in implementing resources needed to carry out the contingency plan.	04/06/83	05/31/84

FILE COPY

July 5, 1985

Mr. B. W. Boisseau
Plant Manager
Kerr-McGee Chemical Corporation
P. O. Box 906
Columbus, Mississippi 39701

Dear Mr. Boisseau:

Re: Interim Status and Groundwater
Monitoring Inspection
MSD990866329
Columbus, Mississippi

I conducted the above referenced inspections at the Columbus facility June 27, 1985. Copies of both checklists are attached.

Deficiencies in your training program have been identified in previous inspections on June 6, 1983, (for inadequate job descriptions) and on May 23, 1984 (for noncompliance with the requirement for an annual training update).

To meet the requirements of Part 265.16, the following must be submitted to my office by the dates indicated.

1. Part 265.16(d)(3) - A written description of the type and amount of both introductory and continuing training that will be (or has been) given to each person filling a position listed under paragraph (d)(1) of Part 265.16 must be submitted by July 15, 1985.

2. Part 265.16(a)(2) - Proof of training of the Hazardous Waste Management Director and Instructor at this facility must be submitted by July 15, 1985.

3. Part 265.16(b) & (c) - Documentation to substantiate compliance with these two sections must be submitted by July 15, 1985.

Also, at the time of my inspection I noticed that the hazardous waste impoundment which is intended for closure was still receiving waste; the dewatering process outlined in your approved closure plan, which was to begin March 5, 1985, had not been started. For this reason, you need to submit a new schedule to this office with revised dates for the actual closure process. This schedule should be submitted by July 15, 1985.

Finally, a question about interim status operation came up during the June 27, 1985 inspection. Subpart G, Part 270.70, states that while under interim status a facility shall be treated as having a permit to operate as long as the facility complies with Part 270.71 and all 265 requirements. Part 265.113 says that within 90 days after receiving the final volume of hazardous waste or 90 days after approval of the closure plan, if that is later, the owner or operator must treat, remove from the site, or dispose of on-site all hazardous wastes in accordance with the approved closure plan. According to this section, you are not in violation of the regulations as I had earlier indicated. However, you are behind schedule and should make every effort to complete your closure promptly according to the schedule.

Should you have any questions about this letter, please contact me at 961-5171.

Sincerely,

Donald G. McCraw
Hazardous Waste Section

DGM:hdb
Enclosures
cc: Mr. P. C. Gaskin, P. E., Kerr-McGee Chemical Corporation

KERR-McGEE CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENGINEERING SERVICES DIVISION

April 30, 1985

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don McCraw
Division of Solid Waste Management
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Re: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, Mississippi Facility
EPA I.D. No. MSD 990866329

Dear Mr. McCraw:

Kerr-McGee Chemical Corporation, Forest Products Division is continuing with the groundwater quality assessment plan submitted to the Mississippi Bureau of Pollution Control for the Columbus, Mississippi Facility. As discussed in an April 24, 1985 meeting with you and Mr. John Herrmann, Kerr-McGee will install a new monitor well at a location in between the regulated pond and existing monitoring well CMW-3. This well will serve to confirm if contamination noted in CMW-3 is related to pond leakage. The approximate location is shown on the attached diagram.

The proposed well will be designated CMW-5 and will be constructed using a 2-inch casing and screen inside of a 6-inch surface casing. All casing and screen materials will be composed of PVC with screw type joints.

Well drilling and installation is currently scheduled for the week of May 13, 1985. After well installation is completed, the well will be sampled for K001 constituents. Kerr-McGee will contact the MBPC if well installation is delayed.

Please feel free to contact me or P. C. Gaskin if you require additional information.

Very truly yours,

S. M. Logan
Manager of Hydrology
(405) 270-2699

SML:dh

cc: B. Boisseau

FILE COPY

MEMORANDUM

TO: File, Kerr-McGee Meridian & Columbus

FROM: Don McCraw

SUBJECT: Meeting with Pete Gaskin, April 24, 1985

DATE: April 30, 1985

At Kerr-McGees request a meeting was held on April 24, 1985, 9:30 a.m., at BPC, Jackson to discuss the Final Groundwater Quality Assessment Plan, Phase III, for the Meridian facility which satisfied Commission Order # 805-84, submitted April 15, 1985, and notification of contamination in CMW-3 at Columbus and the plan that Kerr McGee proposes to take in both matters.

1. Meridian Phase III Final Report; Based on studies performed and submitted in the report, a mounding situation seems to be indicated under the RCRA impoundment. Kerr-McGee proposes to install two additional monitoring wells, one located between MW-1 and P-12. The other well will be located between MW-4 & 3 and P-5. In addition to the MW's, four additional piezometers were proposed, and five were agreed to be installed as indicated on Page 20 of the report.

   Construction date for installation of the additional wells is the week of the 13th of May and sampled immediately. Results are due to MBPC by June 14, 1985. KM is also having both analysis done by a different lab contractor than Harmon this time.

2. Notification of contamination of CMW-3 at Columbus was discussed, and Kerr-McGee proposes to install a new well in the immediate vacinity of CMW-3 to try and prove the reason for contamination is well construction or possible laboratory error. The new well will be installed by same contractor for Meridian during the same time period (May 13-17, 1985). Results from samples are due MBPC by June 14, 1985. If comtamination can not be disproved, a Post Closure Plan will be submitted to MBPC by June 30, 1985.

Kerr-McGee is working on Post Closure Plan for Meridian facility now. It is due to MBPC by May 15, 1985.

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

April 16, 1985

DIVISION OF SOLID WASTE
REVIEWED BY D.M & C.E.
DATE 4-22-85
COMMENTS Concure. Comments discussed at Meeting 4-24-85.

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Don McCraw
Division of Solid Waste Management
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Re: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, Mississippi Facility
EPA I.D. No. MSD 990866329

Dear Mr. McCraw:

Attached are the K001 re-analysis results for well CMW-3 at the Kerr-McGee Chemical Corporation, Columbus, Mississippi facility. Napthalene, fluoranthene and acenapthylene are indicated to be present in the well.

Kerr-McGee Chemical Corporation would like to discuss these results, if time permits, at the scheduled meeting to discuss the Meridian facility on April 26, 1985. In the meantime, if you have any questions, please call me at (405) 270-2395.

Very truly yours,

Kerr-McGee Chemical Corporation
Forest Products Division

P. C. Gaskin
Environmental and Quality Control

Install new well 5/13/85
Sampling "
Results due June 14, 1985

PCG:dh

Attachments

cc: B. W. Boisseau
Jeff Bull

FOREST PRODUCTS

HARMON ENGINEERING & TESTING

AUBURN INDUSTRIAL PARK, AUBURN, AL. 36830 (205)821-9250

GROUNDWATER MONITORING LABORATORY RESULTS

K001 PARAMETERS

Kerr McGee Chemical Corp
Forest Products Division
Post Office Box 906
Columbus, MS 38703-0906

Attn: Bob Boisseau
cc: Mr. Pete Gaskin
Mr. Roy Widmann

HE&T PROJECT 661-15.C
DATE SAMPLE RECEIVED 2-28-85
DATE DATA TRANSMITTED 4-1-85
CLIENT JOB REFERENCE Reanalysis for K001

K001 CONSTITUENTS	DETECTION LIMIT ug/L	CONCENTRATION, ug/L Well 3 1263
pentachlorophenol	25	BDL
phenol	25	BDL
2-chlorophenol	25	BDL
p-chloro-m-cresol	25	BDL
2,4 dimethylphenol	25	BDL
2,4 dinitrophenol	250	BDL
trichlorophenols	25	BDL
tetrachlorophenols	25	BDL
creosote	NA	BDL
chrysene	10	BDL
napthalene	10	666
fluoranthene	10	22
benzo(b)fluoranthene	10	BDL
benzo(a)pyrene	10	BDL
indeno(1,2,3-cd)pyrene	25	BDL
benz(a)anthrancene	10	BDL
dibenz(a.h)anthracene	25	BDL
acenaphthylene	10	29

BDL=BELOW DETECTION LIMIT

Approved for Transmittal

Laboratory Manager

S-020

MEMORANDUM

TO: File

FROM: Don McCraw

SUBJECT: Kerr-McGee Facilities, Columbus and Meridian

DATE: February 19, 1985

FILE COPY

Mr. Pete Gaskin of Kerr-McGee ask to have a meeting with BPC staff on February 19, 1985 to discuss status of both facilities and hand deliver Groundwater Assessment Report 1 due February 18, 1985. List of participants is attached (Enclosure I) and meeting agenda (Enclosure II).

Columbus; discussed closure schedule and dewatering of impoundment. KM expects to start dewatering in mid March 1985 and be complete by mid May 1985. Discussed recycling of Creosote Sludge from impoundment and storage of such material. (All recycle material will be reused and into system within 90 days) Also discussed approval of Closure Plan and condition to approval, KM agreed.

Meridian; discussed new monitoring wells and piezometer installation. (See Report I) also discussed additional work to be accomplished. KM proposed some additional sampling of P-5, P-6, P-11 and MW-1, to try and determine if old sewer line under impoundment is cause of contamination. If so, KM proposed to open up old sewer and try flushing for an extended period of time to see if contamination can be corrected and continue to monitor.

Also discussed dewatering at this facility and the method of recycling of the Creosote Sludges. The project will be accomplished in batches and as soon as a batch is processed it will be piped to the treating system and used in plant operation. The remaining sludges after recycling process will be delt with in Hazardous Waste inventory during closure.

Financial Assurance and Insurance was discussed and KM is attempting to provide Financial Test Documents to satisfy Insurance Requirements.

Additional reports and information is due in this office by mid March, 1985.

DM:cm
Enclosures

FILE COPY

February 12, 1985

Mr. P. C. Gaskin
Environmental and Quality Control
Kerr-McGee Chemical Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: Kerr-McGee Chemical Corporation
MSD990866720, Columbus, MS
MSD081387730, Meridian, MS

Receipt is hereby acknowledged of the following:

Letter, dated December 12, 1984 to Mr. Don McCraw, BPC
Letter, dated January 31, 1985 to Mr. Robert A. Lee, BPC
Letter, dated February 8, 1985 to Mr. Robert A. Lee, BPC.

The above material is currently being reviewed. We will contact you as soon as possible.

Very truly yours,

Donald C. McCraw, Environmental Engineer
Division of Solid/Hazardous Waste

DCM:ps
cc: Mr. Marvin K. Hambrick
Ms. Charlotte D. Mix

RECORD OF TELEPHONE CONVERSATION

Name of firm or party: Kerr McGee Corp.

Address: Oklahoma City

Contact: Charlotte Hix

Phone: 405-270-3138

Ms. Hix called today to notify our office of the problem KM is having in keeping Non Sudden Insurance. Marsh McClellan Ins. Agency has been trying to obtain the coverage for KM but has been unable to do so.

She will send us a letter identifying their problems and will get their Ins. Agent to send a letter also

Kerr McGee - Columbus
" " - Meridian
" " - Hamilton

Robert A. Lee
Signature

1/24/05
Date

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

December 12, 1984

Mr. Don McCraw
Mississippi Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. McCraw:

Re: KMCC-FPD
Columbus Facility
MSD 990866329

This is our response to your recent request to clarify decontamination of equipment and to address certification when the recycled creosote is removed from storage tank No. 2 and used in the wood preserving process.

All tools and equipment that were in contact with creosote, K001 waste and contaminated soil will be decontaminated with a mixture of steam and hot water directed with a hose and nozzle at pressures of 1,000 psi, or greater, at 5 gpm and temperatures of approximately 190° F.

Cleaning will be continued until clean metal or structural surfaces are exposed, and all creosote residues based on visible (black) contamination have been removed.

Particular attention will be given to cleaning the running surfaces such as wheels and tracks of equipment by copious purging and washing with a mixture of steam and hot water. Mixed steam and hot water is more effective than either steam or hot water alone in removing and purging these residues from metal surfaces.

The wash water will be contained and returned to the oil/water separator for treatment in the wastewater treatment system and discharge to the POTW.

The steam-hot water supply will be provided by a trailer mounted, gasoline driven ALKOTA STEAM CLEANER, MODEL 5180T, or equal. This unit has a 250 gallon supply tank, and delivers wet steam at 190° F at nozzle pressures up to 1850 psi at the rate of 5 gpm. The jet action strips back to bare clean metal without detergents or presoaking. It is manufactured by ALKOTA Cleaning Systems, Inc., Box 158, Alcester, South Dakota 57001.

After all of the recoverable creosote has been recycled to storage tank No. 2, a registered professional engineer will certify by letter to the MBPC that the reclaimed creosote has been used in the wood preserving process within 90 days.

Should you have any questions, please contact me.

Very truly yours,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. GASKIN
Environmental and Quality Control

PCG:rc

cc: B. W. Boisseau
Jeff Bull
W. J. Broussard

Non-PVC
File

December 3, 1984

Mr. P. C. Gaskin, Environmental
and Quality Control
Kerr-McGee Chemical Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: Pretreatment Permit No. PT90021
Columbus, Mississippi Facility

We have reviewed the application which you have submitted for the above referenced facility. Enclosed please find a draft modification of the pretreatment permit which we intend to finalize shortly. If you have any comments regarding the modification, please inform us in writing, prior to December 19, 1984.

Sincerely,

Wm. Stephen Spengler, P. E.
Industrial Wastewater Control Section

WSS:cm
Enclosure
cc: Mr. John Herrmann, BPC <= This copy for

Hal Herrmann
MBPC
Don McGraw

KERR-McGEE CHEMICAL CORPORATION

KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

October 29, 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Wm. Stephen Spengler, P.E.
Industrial Wastewater Control Section
Bureau of Pollution Control
Department of Natural Resources
P. O. Box 10385
Jackson, MS 39209

Re: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, Mississippi Facility

Dear Mr. Spengler:

Enclosed is the Application for a State Operating Permit for the proposed upgrade of the wastewater treatment system at our Columbus facility. The upgraded system must be completed and in operation under MBPC permit before the impoundments can be closed.

As we have discussed, the upgraded system will handle and treat the wastewater for removal of solids and organic constituents. It is anticipated the treated wastewater discharged will not adversely affect the local POTW.

Should you have any questions, or would like to meet and discuss these plans, please call me.

Very truly yours,

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. Gaskin
Environmental and Quality Control

PCG:kr
Enclosure

Forest Products

cc: Mr. B. W. Boisseau, Plant Superintendent
Kerr-McGee Chemical Corporation
Forest Products Division
P. O. Box 906
Columbus, MS 39701

Mr. John Herrmann
Division of Solid Waste
Bureau of Pollution Control
Mississippi Department of
Pollution Control
P. O. Box 10385
Jackson, MS 39209

Mr. Samuel L. Jaynes, P.E.
Continental Engineering Service
of Mississippi, Inc.
P. O. Box 752
Aberdeen, MS 39730

Application Number

Date Received

STATE OF MISSISSIPPI
BUREAU OF POLLUTION CONTROL
P. O. BOX 10385
JACKSON, MISSISSIPPI 39209

APPLICATION FOR A STATE OPERATING PERMIT

(Please print or type)

1. **Name of Applicant:** Kerr McGee Chemical Corporation
   Forest Products Division

2. **Mailing Address of Applicant:**

   Number & Street (P.O. Box): 607 14th Street North, P. O. Box 906

   City: Columbus **State:** Mississippi **Zip:** 39701

3. **Applicant's Authorized Agent:**

   Name & Title: P. C. Gaskin, Environmental and Quality Control

   Number & Street (P.O. Box): P. O. Box 25861, Kerr McGee Center

   City: Oklahoma City **State:** Oklahoma **Zip:** 73125

   Telephone Number: 405/270-2395

4. **Facilities Location:**

   Number & Street: 607 14th Street North

   City: Columbus **County:** Lowndes

5. **Nature of Business:** Wood Preserving Facility

6. **Do you Discharge Wastewater to a POTW?** __X__ **Yes** _____ **No**
   If "Yes" Continue, if "No" go to Item 10.

   Name of POTW Receiving Wastewater: Columbus, Mississippi
   Wastewater Treatment Plant

   Number & Street (P.O. Box): Pickensville Road

   City: Columbus **County:** Lowndes

7. Discharge Type and Occurrence:

A. Type of Discharge: X Continuous; If Continuous, 15,000 Gallons per Day (Max.)

____ Batch

B. Discharge Occurrence: 7 Days per Week

C. Discharge Occurrence: (Months per Year)

X	Jan.	X	Feb.	X	Mar.	X	Apr.
X	May	X	Jun.	X	Jul.	X	Aug.
X	Sept.	X	Oct.	X	Nov.	X	Dec.

8. If Batch: N/A

A. ____ Thousand Gallons per Discharge

B. ____ Hours per Day

C. ____ Discharge Occurrences per Day

9. Maximum Period of Flow: From October (Month) to April (Month)

10. Facility Water Use:

Estimate average volume in thousand gallons per day for the following types of water usage at this facility.

Noncontact Cooling:	2,000
Boiler Feed:	10,000
Process (Including Contact Cooling):	2,000
Sanitary:	500
Other:	N/A
Total:	14,500

11. List All Facility Discharges:

Other water losses (surface water, product consumption, evaporation). Indicate volume in thousand gallons.

Steam evaporation	3,500
Steam Condensate (recycled)	5,500
Boiler blowdown (discharge)	1,000
Treated wastewater (discharge)	3,000
Sanitary (discharge)	500
Cooling tower evaporation	2,000
Treated surface runoff (discharge)	500

TABLE 1

65 Toxic Pollutants Listed in Consent Decree and Referenced in 307(a) of the CWA of 1977

Believe Present		Concen.	Believe Present		Concen.
	Acenaphthene			Endrin and Metabolities	
	Acrolein			Ethylbenzene	
	Acrylonitrile			Flouranthene	
	Aldrin/Dieldrin			Haloethers	
	Antimony & compounds			Halomethanes	
	Arsenic & compounds			Heptachlor & metabolities	
	Asbestos			Hexachlorobutadiene	
	Benzene			Hexachlorocyclopentadiene	
	Benzidine			Hexachlorocylohexane	
	Beryllium & compounds			Isophorone	
	Cadmium & compounds			Lead & compounds	
	Carbon tetrachloride			Mercury & compounds	
	Chlordane			Naphthalene	
	Chlorinated benzenes			Nickel & compounds	
	Chlorinated ethanes			Nitrobenzene	
	Chlorinalkyl ethers			Nitrophenols	
	Chlorinated naphthalene			Nitrosamines	
	Chlorinated phenols		X	Pentachlorophenol	<1.0 ppm
	Chloroform		X	Phenol	<300 ppm
	2-Chlorophenol			Phthalate esters	
	Chromium & compounds			Polychlorinated byphenyls(PCB)	
	Copper & compounds			Polynuclear aromatic	
	Cyanides			Hydrocarbons	
	DDT & metabolities			Selenium & compounds	
	Dichlorobenzenes			Silver & compounds	
	Dichlorobenzidine			2,3,7,8-Tetrachlorodibenzo-p-dioxine (TCDD)	
	Dichloroethylenes			Tetrachloroethylene	
	2,4-Dichlorophenol			Thallium & compounds	
	Dichloropropane & Dichloropropene			Toluene	
	2,4-Dimethylphenol			Toxaphene	
	Dinitrotoluene			Trichloroethylene	
	Diphenylhydrazine			Vinyl chloride	
	Endosulfan & metabolities			Zinc & compounds	

List any other toxicants known or anticipated to be present in the discharge:

Creosote is the only preservative used at this facility. We believe this substance can be represented by COD in the treated wastewater discharge.

12. The Columbus plant is a wood preserving plant that pressure treats wood products (mainly crossties) with creosote. The dry wood is placed in a pressure cylinder, immersed in the treating oil(creosote) and pressure is applied to the cylinder for a period of time to impregnate the wood with the preservative. After treating is complete, a vacuum is placed on the pressure cylinder to remove excess preservative. The volume of contaminated wastewater from the treating cylinder is small, approximately 300 gallons per charge, and consists mostly of vacuum seal water and condensate.

Most of the wood treated by this plant is air dried. However, at times it is necessary to dry the wood before treatment. This is done by placing the wood in the cylinder, applying heat, and pulling a vacuum on the cylinder. These drying cycles generate some 6,000 gallons of wastewater per charge. This water consists of wood sap (approximately 1,800 gallons), vacuum seal water (approximately 3,900 gallons) and contact condensate.

There is a considerable amount of steam condensate produced in a day. This water is basically clean process water and averages some 6,500 gallons per day.

There is also a small amount of rainwater runoff that is collected and treated. This is the rainwater that collects in front of the treating cylinders and in the diked areas around the storage tanks. This water averages less than 1,000 gallons per one inch of rain.

12. Give narrative description of process(es) producing discharge, or in the case of no discharge, that generates wastewater.

See attached

13. List raw materials used: Wood and creosote

14. Effluent Characteristics:

A. You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall to the city sewer. If your facility does not have a discharge indicate so and disregard.

Parameter	Maximum Daily Value	Maximum 30 Day Value	Long Term Average Value
BOD_5			432 mg/l
COD			± 1700 mg/l
TSS			< 100 mg/l
Ammonia			< 0.5 mg/l
Oil & Grease			40 mg/l
pH			6.0 - 9.0

B. Review the substances listed in Table One and indicate which of these substances you have reason to believe may be in your discharge. For instance you may use solvents or Biocides that contain one or more of the indicated solvents. For each substance indicated you must perform at least one analysis and report results.

A toxic pollutant scan for the 67 substances has not been performed on the treated wastewater. Since creosote is the only preservative used at the Columbus Facility, trace quantities of constituents found in creosote might be present in the treated wastewater discharge.

15. Treatment Data:

A. Do you provide treatment for your wastewater? X **Yes** ____ **No**

B. If yes, list and describe each treatment unit and attach a line schematic of the treatment system indicating each treatment unit and a water balance.

See Attachment I

I certify that I am familiar with the information contained in this application and that to the best of my knowledge and belief such information is true and correct.

P. C. Gaskin	Environmental and Quality Control
Printed Name of Applicant's Authorized Agent	**Title**
October 29, 1984	P. C. Gaskin
Date Application Signed	**Signature of Authorized Agent**

ATTACHMENT I

KERR McGEE CHEMICAL CORPORATION

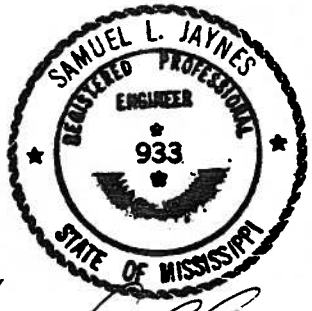
FOREST PRODUCTS DIVISION

COLUMBUS, MISSISSIPPI FACILITY

EPA-ID NO. MSD 990866329

Proposed changes in the handling and treatment of process wastewater at the Columbus, Mississippi Plant

Prepared by:
Continental Engineering Service
P. O. Box 752
Aberdeen, Mississippi



CONTENTS

Swett & Crawford
Management Company, Ltd.
A subsidiary of the Continental Corporation

116 John Street
33rd Floor
New York, New York 10038
Telephone: (212) 587-9750 or
(212) 587-9751
Telex: 126702
Cable: SWETTCRAW NYK

Octobe 10, 1984

Mr. Jack M. McMillan, Director
Division of Solid/Hazardous Waste
Management
Mississippi Department of Natural Resources
P.O. BOX 10385
Janckson, Mississippi 39209

RE: Kerr McGee Chemical Corp.
EPA ID # MSD 007025117
Hamilton, Mississippi
EPA ID # MSD 990866329 a..d
Columbus, Mississippi and
EPA ID # MSD 081387730
Meridian, Mississippi

Dear Sir:

Reference is made to my letter of August 15, 1984 a copy of which is attached.

Through negotiations we have agreed to extend the captioned policy until February 1, 1985. Please accept this letter as the required 60 day notice of cancellation of the "Hazardous Waste Facility Certificate of Liability Insurance" relating thereto.

We presume that Kerr - Mc Gee will obtain replacement coverage and provide you with a new Certificate prior to February 1, 1985 but we will not be responsible for their failure to do so.

Should you require further information or documentation from us please contact the undersigned.

Very truly yours,

SWETT & CRAWFORD
MANAGEMENT COMPANY, LTD.

Dominick J. Anzalone
Vice President

DJA:gml
Enc.

Ken McGee (Columbus)

Call Pete Gaskin Monday, Oct. 8th. 1984.

1. Address Testing of decontaminated equipment.

2. Address Certification when all of recycle creosote is removed from storage tank #2. (Prior to 90 day limit)

(405) 270-2395

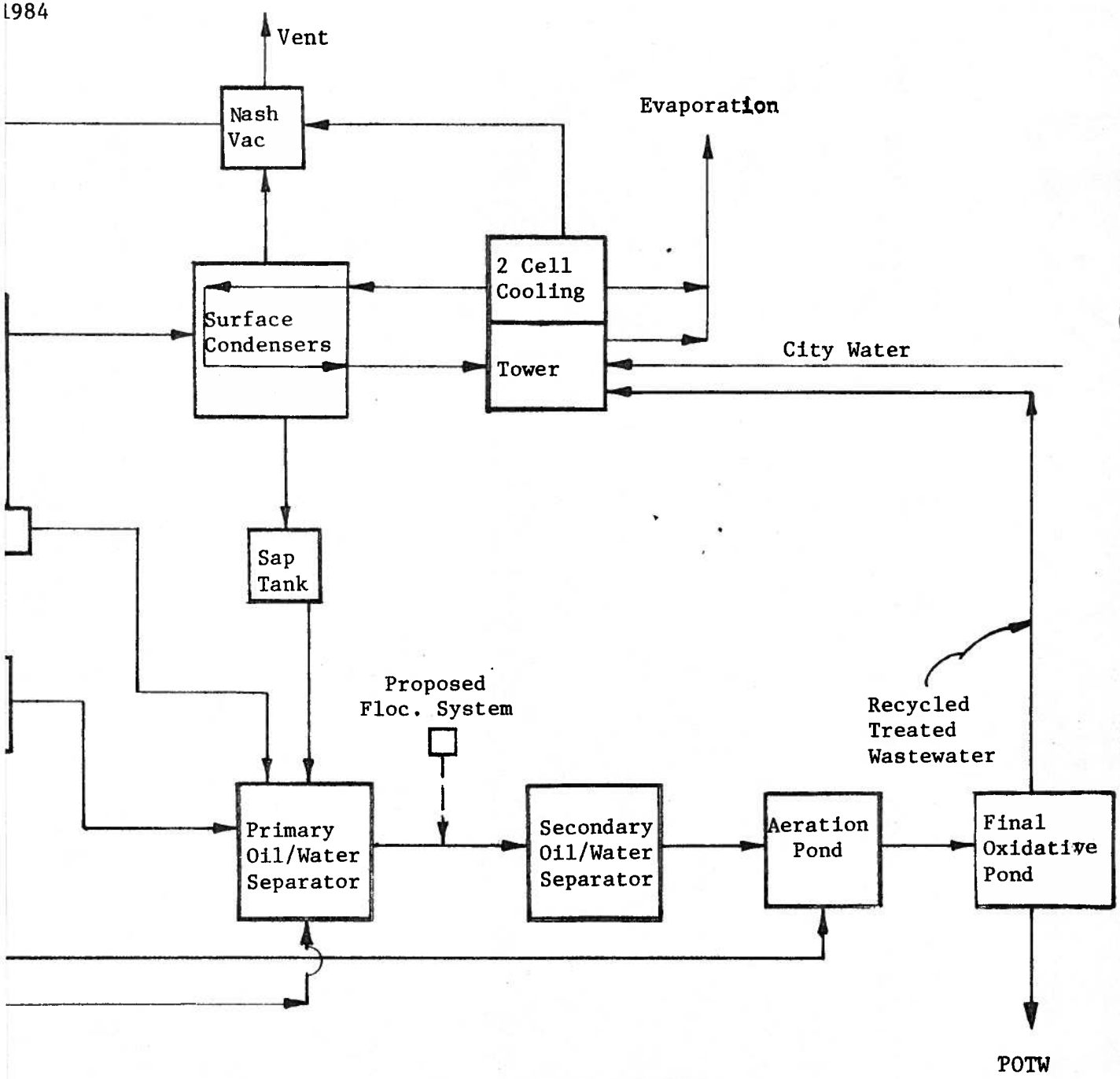
Called 1505hrs, Mr. Gaskin out of town, will be back Wednesday. Left Message to return my call.

10-12-84 8:30 AM

Pete Gaskin returned my call o/b Monday and we discussed the two items need for approval o/b this Closure-Plan. He stated it would be fowarded to MBPC within a week.

)N

1984


Vent
Nash Vac
Evaporation
2 Cell Cooling
Surface Condensers
Tower
City Water
Sap Tank
Proposed Floc. System
Recycled Treated Wastewater
Primary Oil/Water Separator
Secondary Oil/Water Separator
Aeration Pond
Final Oxidative Pond
POTW

WASTEWATER CHARACTERISTICS

The wastewater to be treated by the proposed treatment system includes boiler blowdown and all process wastewaters generated by the production process. Steam condensate will be recirculated to the boilers as boiler feed water.

Recent analyses of the wastewater show that the raw wastewater has the following characteristics:

Oil and Grease	- 162.8	mg/l
Phenol	- 208.7	mg/l
Pentachlorophenol	- <1.0	mg/l
BOD_5	- 322	mg/l
pH	5.18	

The volume of wastewater generated per day will vary from zero to a maximum of around 15,000 gpd. The plant is currently treating dry stock and the volume of wastewater is only 3,000 to 5,000 gpd. When the plant treats green wood, the flow of wastewater will increase to 10-15,000 gpd. This amount does not include potential benefits of recycling treated wastewater as makeup to the cooling tower and clean condensate reuse which together would reduce the volume of wastewater discharged by an estimated 5,000 gpd.

WASTEWATER TREATMENT TESTS

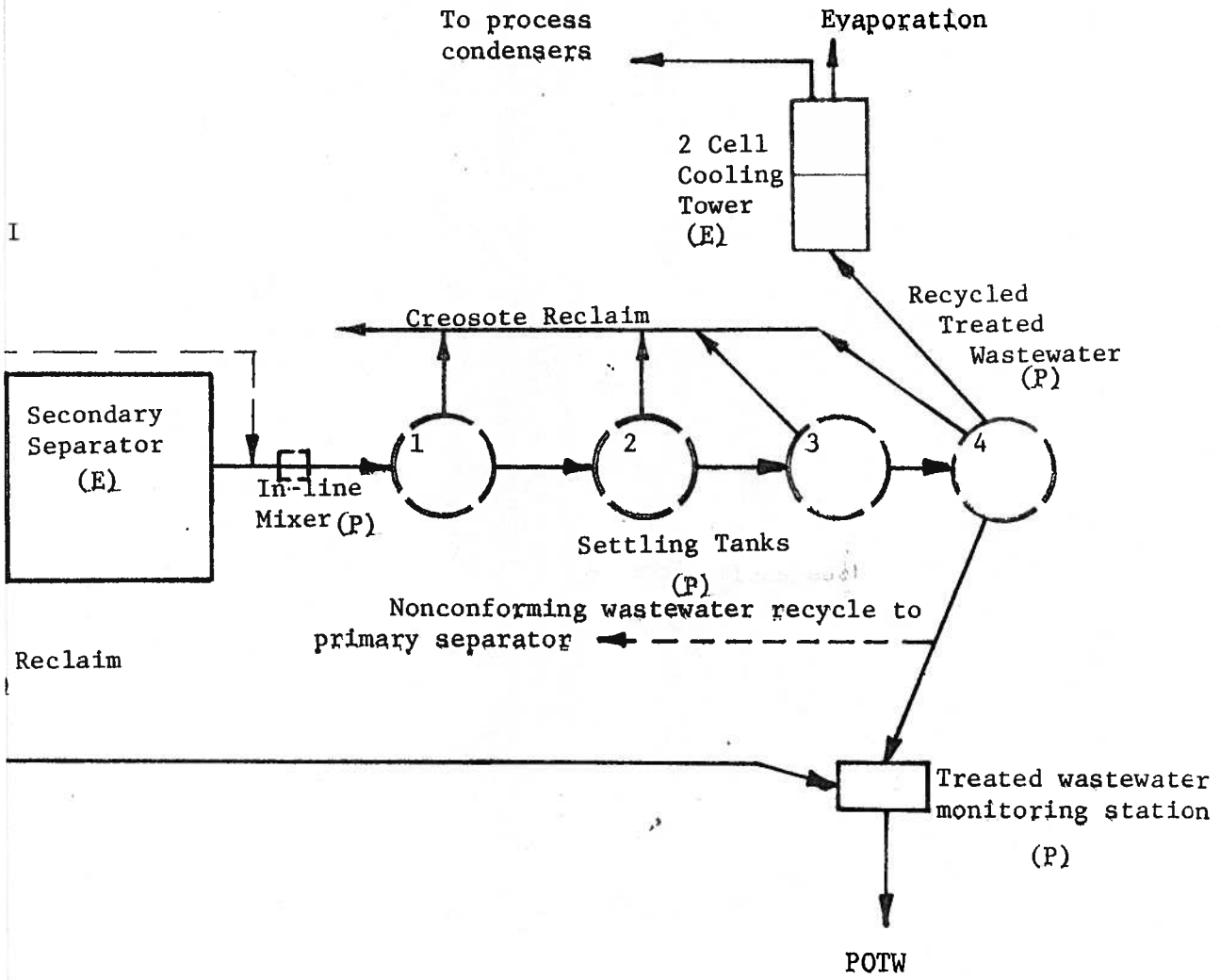
Kerr-McGee is presently studying proposals for the chemical treatment system. The suppliers under consideration are Drew Chemical and Mogul. Both suppliers have the ability to furnish the polymeric flocculants and the chemical injection and mixing equipment.

Tests recently conducted by the vendors indicate that the treated effluent quality will be as follows:

Oil and Grease	- 40	mg/l
Phenols	- 100-300	mg/l
Pentachlorophenol	- <1.0	mg/l
BOD_5	- 250-450	mg/l
pH	- 6.0-9.0	

CAL CORPORATION FOREST PRODUCTS DIVISION
COLUMBUS, MISSISSIPPI
ROCESS AND WASTEWATER FLOW DIAGRAM

SEPTEMBER, 1984



File:
Kerr-McGee
Columbus.

October 3, 1984

Mr. P. C. Gaskin
Environmental and Quality Control
Kerr-McGee Chemical Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: Kerr-McGee Corporation
Columbus, Mississippi

We have reviewed the preliminary report which you submitted for the proposed pretreatment facility at your Columbus Plant. The report estimates the flow at the facility to range from 7,500 gpd to 15,000 gpd. We request that a detailed flow breakdown of the sources which comprise this amount be submitted to our office along with the anticipated characteristics of each source. As discussed with you, the proposed treatment actually represents a lower degree of treatment than presently exists. Specifically, we are concerned with the high level of phenolics which are estimated to be in this discharge. Once we receive the requested information we will be in a better position to determine if this discharge will be acceptable for discharge into the Columbus POTW.

If you have any questions concerning this matter do not hesitate to contact me at 601-961-5171.

Sincerely,

Wm. Stephen Spengler, P.E.
Industrial Wastewater Control Section

WSS:cl
cc: Mr. John Herrmann, BPC

THIS COPY FOR

Kerr McGee — Closure Plans

Columbus -

more detail — step by step approach

Transportation costs - TO where +

disposal costs - $ per TON + any taxes

Equipment rental & Labour

Wastewater Treatment system - ? Impoundments

Max. Inventory of wastes

Transportation costs TO where + $ per ton

Equipment Rental Labour etc.

Supervision (Engineer Certification)

Remove all hazardous waste

All Tests # of Tests - Laboratory costs

Drawing showing

Discharge to city POTW at what cost

Total cost Plant Closure is misleading

is this the entire plant or just Kerr areas

Meridian - same as above

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION
COLUMBUS, MISSISSIPPI FACILITY
EPA-ID NO. MSD 990866329

In April, 1984, Kerr-McGee Chemical Corporation, Forest Products Division, submitted to the Mississippi Bureau of Pollution Control a closure plan for the two surface impoundments at the Columbus, Mississippi Wood Preserving Facility. To facilitate closure, certain changes in the handling and treatment of the process wastewater will have to be completed. The purpose of this report is to present the process design for upgrading the existing system.

EXISTING PLANT DESCRIPTION

The Columbus wood preserving facility was built in 1928 and acquired by Kerr-McGee Corporation in 1964. The main plant consists of approximately 90 acres (figure 1). At the present time, creosote coal tar solution is the only wood preservative used in the plant, although pentachlorophenol was also used until 1976.

Wastewater generated by the wood preserving process is passed through a primary oil/water separator and then split into two streams for parallel passage through a secondary dual-compartment oil/water separator (figure 2). Creosote settles in these vessels where it is recovered and returned to the process for reuse.

From the second stage separator, the waste streams are recombined and discharged to an aeration pond, then to an oxidation pond prior to discharge to the Columbus Publicly Owned Treatment Works (POTW).

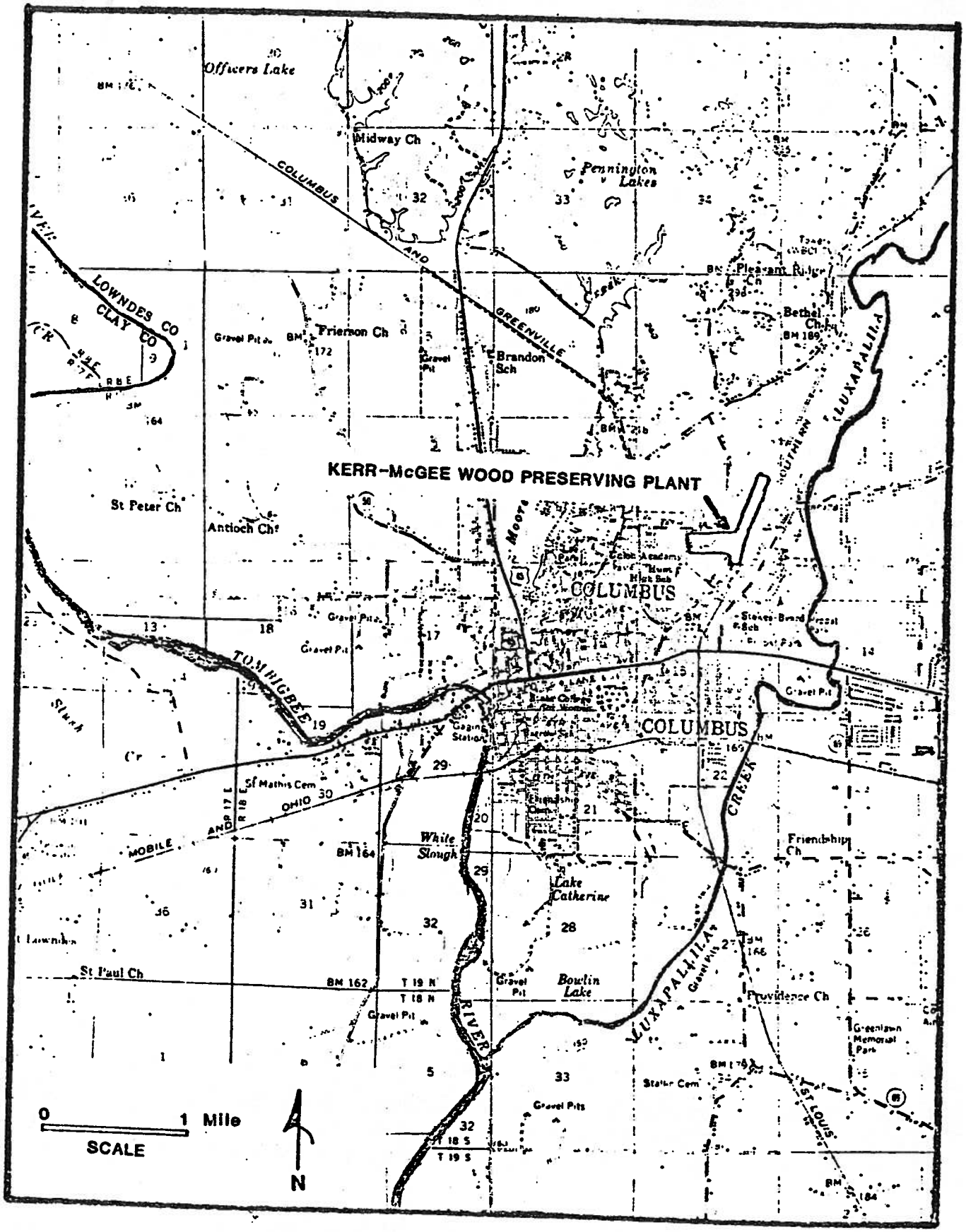
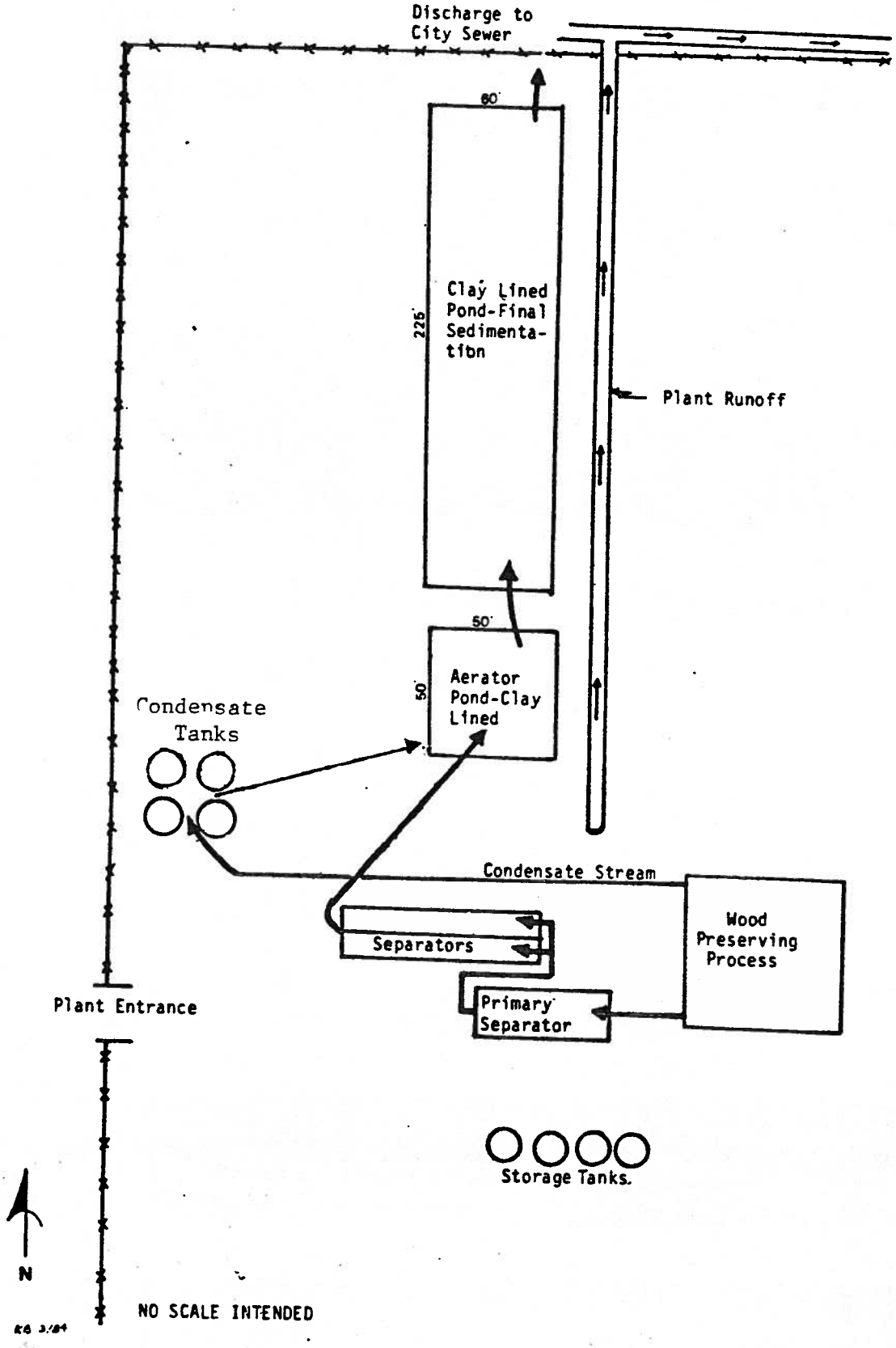


FIGURE 1: KERR-McGEE FACILITY LOCATION

FIG. 2 SCHEMATIC DIAGRAM
KM WOOD PRESERVING PLANT
COLUMBUS, MISSISSIPPI



Steam condensate and water that is not contaminated with creosote are discharged into four condensate receiving tanks, then discharged to the aeration pond for commingling and discharge with process wastewater.

PROPOSED TREATMENT SYSTEM

Kerr-McGee is proposing to discontinue the use of the aeration pond and oxidation pond in accordance with State of Mississippi hazardous waste regulations. Before closure of the impoundments can begin, an improved wastewater treatment system will be installed, permitted and operated in accordance with Mississippi Water Pollution Control Law (Section 49-17-1, et seq., Mississippi Code of 1972). The system will pretreat the process wastewater prior to discharging it to the Columbus POTW. The new wastewater treatment system will replace the surface aeration pond and oxidation lagoon.

The proposed upgrading plan includes replacing the treatment effluent in the impoundments with chemical treatment. This will be accomplished by adjusting the pH of the effluent from the primary oil/water separator with caustic soda. A chemical feed pump and an in-line static mixer will feed and mix the caustic soda with the wastewater. Downstream of the caustic addition system and just prior to entering the secondary oil/water separators, a polymeric flocculant will be added to the waste stream with appropriate chemical feed pumps and in-line mixers. The effluent from the secondary separators will be pumped to a series of four holding tanks with a capacity of approximately 60,000 gallons. From the fourth tank the wastewater stream will be recycled to the cooling tower for reuse and the balance released to the city sewer through a new discharge line at a controlled rate. A pH monitor and sampler will be installed to monitor the treatment plant's effluent and to insure that the effluent will comply with any requirements the Columbus POTW authority may deem as necessary prerequisites to the use of its sewage system and treatment works. Refer to the Proposed Wastewater Flow Diagram, dated September, 1984.

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

August 27, 1984

Mr. John Herrmann
Mississippi Department of
Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Herrmann:

Re: August 8, 1984 Meeting

This letter serves to confirm the items discussed at our August 8, 1984 meeting. Discussed at the meeting were the Columbus, Mississippi Closure Plan; the Meridian, Mississippi Closure Plan; Columbus Groundwater Quality Assessment Report, and the groundwater samples split between your office and our contract laboratory. Results of these discussions are summarized below:

COLUMBUS GROUNDWATER QUALITY ASSESSMENT PLAN

It is understood that your office has received and reviewed the groundwater quality assessment report issued July 17, 1984, and that your office is in concurrence with the major points and conclusions presented in this report. Based on this we will be reverting back to the groundwater detection monitoring program typically required for hazardous waste management facilities. In addition, we will be collecting bi-monthly samples from the new upgradient well in order to develop a data base for conducting the necessary student t-test in the future.

COLUMBUS CLOSURE PLAN

The results of the groundwater quality assessment plan indicated that there was no contamination of the groundwater due to the hazardous waste management area. Based on this, it is understood that the closure plan should be revised and submitted as a "clean closure" plan. The post-closure plan will be deleted. It is understood that if "clean closure" cannot be effected or if subsequent groundwater monitoring indicates groundwater contamination, a post-closure plan may be necessary at that time.

As discussed at the meeting, Kerr-McGee will not be storing hazardous material (K001 sludge) during the closure of the impoundments. We will be pumping the recoverable product from the impoundment to our work tanks, and the material will be reprocessed into a useable creosote product. The product will be used by the facility during normal operation. The recovery process is very typical of wood preserving plants and has been ongoing at the Columbus plant for twelve years. To avoid any confusion with regard to the potential for storage of the material, Kerr-McGee will dedicate one of the two work tanks already existing at the facility to the recovery process. Any material recovered from the bottom of the impoundment will be pumped directly to the dedicated work tank and recycled as creosote within 90 days from the date we conclude pumping product from lagoon. We will revise the closure plan defining more clearly the recycle of the material from the impoundment. It is understood that based upon this revision, Kerr-McGee will not have to submit a Part B permit application for a storage facility.

The aforementioned revisions to the closure plan will be submitted to your office no later than September 17, 1984.

MERIDIAN CLOSURE PLAN

There seems to have been some confusion with regard to the deadline date for submittal of the Meridian Closure Plan. Kerr-McGee initially commited to submitting the closure plan on August 15, 1984. However, upon receipt of the court order requesting closure of the Meridian impoundments, the deadline of October 22, 1984 contained in the court order was thought to have superseded the previous obligation. A major effort is currently ongoing to submit the closure plan as soon as possible with an anticipated submittal date of no later than September 7, 1984.

GROUNDWATER SPLIT SAMPLES

The results of the split sample analysis conducted in June, 1984 by your office and the contract laboratory for Kerr-McGee, Harmon Engineering and Testing, indicated minor differences in several areas. As we discussed, the difference cannot be explained without a major effort to evaluate the laboratory procedures used by both laboratories. The results developed by the Harmon Engineering laboratory were consistent with the previous results. Based on this, it is felt that there may be slight differences in analytical procedures used by both labs which has resulted in the minor differences in the results.

A GC mass spec scan for priority pollutants was conducted by your laboratory. The results indicated relatively small concentrations of a few priority pollutants in wells both at Meridian and Columbus. During the October sampling trip, Kerr-McGee will again sample and analyze all wells for the K001 constituent, using a GC mass spec. This will reduce the detection limit to levels approaching 10 ppb as you requested in your letter dated August 14, 1984.

Mr. Jeffrey Bull and I appreciated the time you spent with us to discuss the aforementioned matters. If we have misinterpreted our discussions or if you have any additional matters you would like to discuss, do not hestitate to contact us.

Sincerely,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. GASKIN
Environmental and Quality Control

PCG:rc

FILE COPY

August 14, 1984

Mr. P. C. Gaskin
Kerr McGee Chemical Corporation
Kerr McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

This letter is written in response to your submittal of July 17, 1984, which included a report on Phase I of the Assessment Plan required by Commission Order No. 706-84. Kerr McGee has fulfilled the requirements of the Commission Order. However, the Bureau questions the sensitivity of the analyses performed to show that hazardous constituents have not migrated into the groundwater.

Last month, the Bureau split samples with Kerr McGee, the results from which have previously been transmitted to you. The only downgradient well which we sampled was No. 3; the basis for sampling this well was the fact that the TOC readings for this well were the highest of the three downgradient wells and No. 3 is located such that it would be the most likely of the wells to show contamination. We did not show contamination in this well. Therefore, we feel that it is likely that Kerr McGee is not affecting groundwater at the present time.

The Bureau is requesting that Kerr McGee resume semi-annual sampling, pursuant to MHWMR 265.93. However, during the next sampling round, we request that Kerr McGee also sample each well for the hazardous waste constituents, with a detection limit on the order of 10 parts per billion (i.e., a GC/MS scan) in order to confirm our findings and belief that Kerr McGee is not affecting groundwater. Sampling should be done no later than December 31, 1984.

We appreciate your compliance with the Commission Order and look forward to your continued cooperation.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:JH:els

FILE COPY

July 27, 1984

Mr. P. C. Gaskin
Environmental & Quality Control
Kerr McGee Corporation
Kerr McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: MSD081397730 (Meridian)
MSD990866329 (Columbus)

Attached are results from sampling performed by the Bureau at the above facilities. The newly installed upgradient wells at both facilities indicated traces of hazardous constituents; therefore, I believe that these wells should be watched closely. I would welcome your comments along this line. Additionally, you will notice that MW3 at Meridian indicated a fairly significant concentration of pentachlorophenol.

If you have any questions or comments, please contact me.

Sincerely,

John Herrmann
Hazardous Waste Section

JH:ela
Attachment
cc: Mr. Jim Cook, EPA
Mr. H. L. Dearman
Mr. Bobby Boisseau

Evaluation of Closure Plan and
Cost Estimate for Closure

1. Estimation of maximum inventory:

   94,700 ft^3 sludge

   200 yd^3 soil => 5400 ft^3 contaminated soil

   Comment - Plan did not include removal of liner.

   12 inch liner => 32,400 ft^3 contaminated liner

   Total waste to be removed: 132,500 ft^3

   Wastewater: 708,400 gallons

2. Cost of liquid removal:

   Assuming 5 HP pump fo 30,000 gpd removal

   25 days x $50.00/day = $1,250

   Cost of analysis prior to and during discharge:

   $100 per sample x 4 samples = $400

3. Cost of sludge removal
   (front end loader assumed)

   Output: 100 $yd^3/hr.$ = 2700 $ft^3/hr.$

   Cost: $1.30/$yd^3$ = $0.05/$ft^3$

   Total Hours: $\frac{132,500\ ft^3}{2700\ ft^3/hr.}$ = 49 hours

   Cost: $6625 ≃ $6700

   (dragline cost approximately 4 times this cost)

   Hauling: $3.00/loaded mile

   Assume disposal at CWM ≃ 100 miles

   Assume 20 yd^3 per truckload

   = $\frac{4910\ yd^3}{20\ yd^3}$ = 246 truckloads

   246 x $300 = $73,800

*All costs in 1982 dollars adjusted at end.

Sampling:

Obtaining samples 1 hr. labor/sample

5 samples = 5 hrs. labor

Analysis of samples $1000/sample (GC/MS) $5,000

Disposal @ $75/ton

$[132{,}500\ ft^3]\ \frac{[100\ ft^3]}{ft^3} = 13.25 \times 10^6$ lb.

$= 6.63 \times 10^3$ tons

6.63×10^3 tons x 75 $/ton = $497,250

+ contingecy (taxes, etc.) @ 10% = $547,000

Backfill, with compaction $2.00/$yd^3$ => $.075/$ft^3$

Soil and sludge = 132,500 ft^3

Water - $\frac{708{,}400\ gal.}{7.48\ gal/ft^3} = 95{,}000\ ft^3$

=> 227,500 ft^3 x .075/ft^3 = $17,100

Closure cost summary:

water	1,250.		
	400.		
sludge	6,700.	49 hours	54 hours x $35.00/hr.
	73,800.	5 hours	= $1,890
	5,500.		
	547,000.		
	17,100.		
	1,890.		

Certification of closure: $1000

Other labor cost/supervision = 20,000

Total: 674,140 x 1.07 x 1.04 = $750,000
and 25% contingency = $937,500

(dramatically different from the $428,000 assumed by Kerr McGee; does not include installation of pretreatment system, which was accounted for in Kerr McGee's estimate).

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

July 17, 1984

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. John Hermann
Division of Solid Waste
Bureau of Pollution Control
Mississippi Dept. of Natural Resources
P. O. Box 10385
Jackson, Mississippi 39209

RE: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, Mississippi, Facility
EPA I.D. No. MSD 990866329

Dear Mr. Hermann:

Attached, please find the report presenting the results of Kerr-McGee's Groundwater Quality Assessment Plan for the Columbus Facility. The report includes a discussion of the new upgradient well construction methods and initial groundwater quality analyses.

Please contact me at 405/270-2395, if you have any questions.

Sincerely yours,

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. Gaskin
Environmental & Quality Control

PCG:jw
Attachment

cc: B. W. Boisseau

KERR-McGEE CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

ENGINEERING SERVICES DIVISION

July 5, 1984

Mr. John Herrmann
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Dear Mr. Herrmann:

This letter is to confirm our telephone conversation of July 5, 1984, regarding the Groundwater Quality Assessment Plan (GQAP) results for Kerr-McGee's Forest Products Facility in Columbus, Mississippi.

In March, 1984 Kerr-McGee proposed a three-phased groundwater investigation which was approved by the Mississippi Department of Natural Resources in April, 1984 with phase one results to be completed by July 11, 1984. The phase one investigation included 1) an analysis of all wells for K001 constituents and other appropriate Appendix VII constituents, 2) the installation of a new upgradient monitor well, 3) "bailer tests" conducted on the present upgradient well and 4) an attempt to locate other nearby wells that may be sampled for background water quality. Kerr-McGee has completed all of the proposed steps in phase one, however several water quality analyses will not be completed by Kerr-McGee's contract laboratory (Harmon Engineering and Testing, Auburn, Alabama) until July 13, 1984.

As we discussed, Kerr-McGee will delay the submittal of the results of the Columbus Facility groundwater assessment until the necessary chemical analyses are completed. At the present time, we expect to submit a report of the results to you by July 20, 1984.

I am attaching at your request a copy of the initial K001 analyses completed for the present monitor wells. As you can see, all values are below detectable limits except for naphthalene (2.8 mg/l) in well CMW-2. Harmon Engineering and Testing has resampled this well to confirm the naphthalene value. This analysis will also be completed by July 13, 1984.

Please contact P. C. Gaskin if you require further information.

Very truly yours,

S. Michael Logan
Manager of Hydrology

SML:dh

Enclosure

RECORD OF ~~TELEPHONE CONVERSATION~~ Review.

Name of firm or party: Kerr McGee - Columbus.

Address:

Contact:

Phone:

Letter of 6/27/84 appears to have adequately addressed an concerns raised in inspection of 5/23/84.

Signature

6/3/84.
Date

FILE COPY

June 28, 1984

Mr. P. C. Gaskin
Kerr McGee Chemical
Kerr McGee Center
Oklahoma City, Oklahoma

Dear Mr. Gaskin:

On June 12, 1984 and June 13, 1984, the Bureau of Pollution Control split samples with your contractor at your facilities in Meridian and Columbus, respectively. The following represents a brief discussion of our findings:

MSD081387730 - Meridian

Our results indicate a significantly higher TOC reading than was identified in any of the previous results submitted. Specific conductance readings were also higher. Phenol reading was much higher in MW1 but other readings were consistent with previous results.

We request that you provide an explanation of the discrepancy for the TOC reading. If you wish to talk with our laboratory director, his name is Philip Bass and he can be reached at 601-961-5183.

MSD990866329 - Columbus

Although our specific conductivity readings are slightly higher, but in the range of those previously submitted, our TOC readings are significantly higher, especially for the two upgradient wells.

We also measured a significantly higher (by an order of magnitude) reading for phenol in MW3.

The TOC and phenol reading discrepancies should be explained, if possible.

The Bureau is still awaiting results from our contractor lab on the TOH results. These results will be forwarded to you upon receipt. We would appreciate receiving a response from you concerning the above items within 30 days.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:JM:els
Enclosure
cc: Mr. Bobby Boisseau, Columbus
Mr. H. L. Dearman, Meridian

HARMON ENGINEERING & TESTING

AUBURN INDUSTRIAL PARK, AUBURN, AL 36830-4399 (205) 821-9250

LABORATORY RESULTS

Kerr McGee
Kerr McGee Center
Oklahoma City, OK 73125

ATTN: Pete Gaskin

HE&T PROJECT 661-09

DATE SAMPLE RECEIVED 4/25/84

DATE DATA TRANSMITTED 6/5/84

CLIENT JOB REFERENCE _____

HE&T Sample Number	Client Sample Identification	Well #1 10454	Well #2 10455	Well #3 10456	Well #4 10457
	Pentachlorophenol mg/L	<0.5	<0.5	<0.5	<0.5
	Phenol mg/L	<0.1	<0.1	<0.1	<0.1
	2-Chlorophenol mg/L	<0.5	<0.5	<0.5	<0.5
	p-Chloro-m-cresol mg/L	<0.5	<0.5	<0.5	<0.5
	2, 4-Dimethylphenyl mg/L	<0.5	<0.5	<0.5	<0.5
	2, 4-Dinitrophenol mg/L	<0.5	<0.5	<0.5	<0.5
	Trichlorophenols mg/L	<0.5	<0.5	<0.5	<0.5
	Creosote mg/L	<0.5	<0.5	<0.5	<0.5

Approved for Transmittal

Laboratory Manager

cc: Bob Boisseau

FILE COPY

May 16, 1984

Mr. P. C. Gaskin
Kerr McGee Chemical Corporation
Kerr McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

This letter responds to your submission of April 9, 1984, which announced your intent to close the existing surface impoundments in lieu of submitting Part B. The Bureau wishes to have the following clarifications made prior to further processing of this request:

1. The revised Part A, dated April 6, 1984, still shows "S04-708, 400 gallons". To which impoundment does this refer?

2. The closure plan indicates that all sludge and contaminated soils will be removed, in accordance with the levels set by the Department. Simultaneously, a post-closure plan has been submitted, based on the assumption that continued monitoring will be required as a contingency, should (1) it not be feasible to remove all of the contaminated soil or (2) the assessment plan currently underway identifies a contaminant plume.

We require that the post-closure plan identify the costs associated with the activities necessary to maintain final cover, conduct groundwater monitoring, etc. A post-closure permit may be required for this facility and the permit must include these items. (See ment below).

osur nical review of the closure plan (and the costs associated e speci e of the impoundment), we have some basic disagreements ion of th ficity within the plan. We request comments on our ce document e closure activities. In addition, I have attached a l necessary for which should assist you in developing the level of approval of the closure plan.

he post-closure plan lacks
attached additional guidance for ufficient detail; therefore, I have
realize that the degree of post-closu he post-closure plan. Although we
closure activities, we recommend that a e care is contingent upon the
developed - if the closure activities dicta omplete post-closure plan be
the post-closure plan is appropriate, this can e that a modification of
Finally, it is our understanding that EPA is deve be easily accommodated.
post-closure permit applications - we will forward a loping guidance on
we receive it. copy to you when

We would appreciate receiving your amended closure and post-closure plan/permit application by the original due date of your Part B (i.e., June 11, 1984). If this is not possible, please submit a schedule indicating when we can expect to receive the revised closure plan by June 1, 1984.

Sincerely,

Jack McMillan, Director
Division of Solid Waste Management

JM:JH:els
Attachment
cc: Ms. Beverly Spagg, EPA Region IV

HARMON ENGINEERING & TESTING

AUBURN INDUSTRIAL PARK, AUBURN, AL 36830-4399 (205) 821-9250

LABORATORY RESULTS

Kerr McGee
Kerr McGee Center
Oklahoma City, OK 73125

ATTN: Pete Gaskin

HE&T PROJECT 661-01

DATE SAMPLE RECEIVED 4/25/84

DATE DATA TRANSMITTED 6/5/84

CLIENT JOB REFERENCE _____

HE&T Sample Number	Client Sample Identification	Well #1 10454	Well #2 10455	Well #3 10456	Well #4 10457
	Chrysene mg/L	<0.5	<0.5	<0.5	<0.5
	Naphthalene mg/L	<0.5	2.8	<0.5	<0.5
	Fluoranthene mg/L	<0.5	<0.5	<0.5	<0.5
	Benzo(b) Fluoranthene mg/L	<0.5	<0.5	<0.5	<0.5
	Benzo(a) Pyrene mg/L	<0.5	<0.5	<0.5	<0.5
	Indeno (1, 2, 3-cd) Pyrene mg/L	<1	<1	<1	<1

Approved for Transmittal

Laboratory Manager

HARMON ENGINEERING & TESTING

AUBURN INDUSTRIAL PARK, AUBURN, AL 36830-4399 (205) 821-9250

LABORATORY RESULTS

Kerr McGee
Kerr McGee Center
Oklahoma City, OK 73125

ATTN: Pete Gaskin

HE&T PROJECT 661-09

DATE SAMPLE RECEIVED 4/25/84

DATE DATA TRANSMITTED 6/5/84

CLIENT JOB REFERENCE

HE&T Sample Number	Client Sample Identification	Well #1 10454	Well #2 10455	Well #3 10456	Well #4 10457
	Benz(a) Anthracene mg/L	<0.5	<0.5	<0.5	<0.5
	Dibenz(a) Anthracene mg/L	<0.5	<0.5	<0.5	<0.5
	Acenaphthalene mg/L	<0.5	<0.5	<0.5	<0.5

Approved for Transmittal

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

June 27, 1984

Director
Division of Solid Waste Management
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Attention: Mr. David Lee

Dear Mr. Lee:

Re: MSD 990866329
Columbus Facility
Kerr-McGee Chemical Corp.
Forest Products Division

This is our response to your report of the inspection conducted by John Herrmann at our Columbus Facility on May 23, 1984. Each response is numbered to correspond with the numbered items in your letter.

Item 1. The monthly inspection report is now being used as a daily checklist to more clearly define the conditions of the HWMA and associated monitoring wells and processing areas.

Item 2. Arrangements with the local police, fire department, ambulance service and hospital will be documented in the contingency plan by July 9, 1984.

We will file the first phase report of the groundwater assessment program by July 11, 1984.

Should you have any questions, please contact me.

Very truly yours,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. GASKIN
Environmental and Quality Control

PCG:rc

cc: B. W. Boisseau - w/copy of inspection report

Forest Products

FILE COPY

June 21, 1984

Mr. Jim Cook
Waste Compliance Section
U. S. Environmental Protection Agency
Region IV
345 Courtland Street, N. E.
Atlanta, Georgia 30365

Dear Mr. Cook:

Attached are the closure plans for Kerr McGee (Columbus) and Kerr McGee (Meridian). Also attached are the financial instruments for closure and liability that you requested.

I wish to remind you that both facilities have expressed their desires to close their existing impoundments; we have reviewed the Columbus facility closure plan in detail. Meridian's facility is currently under a Commission Order to submit a Part B in December; we anticipate receiving a revised closure plan in August.

If you have any questions, please contact me at 601/961-5071.

Sincerely,

John Herrmann
Hazardous Waste Section

JH:els
Attachment

RECORD OF TELEPHONE CONVERSATION

Name of firm or party: Kerr McGee.

Address:

Contact: Pete Gaskin

Phone:

Mr. Gaskin called to inform us that the closure Plan would be mailed on Monday (6/18/84) and therefore would likely not be received by the 6/11/84 date. I told him that the missing of the date based solely on mail delivery would not be a significant problem.

We also briefly discussed the sampling of the wells in Meridian and Columbus next week.

Signature

6/8/84
Date

June 5, 1984

FILE COPY

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. P. C. Gaskin
Kerr McGee Chemical Corporation
Kerr McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: MSD990866329
Columbus, Mississippi

On May 23, 1984, John Herrmann of my staff conducted an inspection of your Columbus facility. The facility was found to be in substantial compliance with the interim status standards contained within Mississippi Hazardous Waste Management Regulations, Part 265. A copy of the checklist is attached. However, the following items are brought to your attention for correction:

Item	Regulatory Cite	Comment
1.	265.15	The inspection checklist should more clearly define the types of problems for which inspections are made. I recommend that as items are checked, an active check is recorded, rather than the more passive way inspections are currently being made.
2.	265.56	Arrangement with local authorities must be documented in the contingency plan.

You are reminded of your requirement to submit the revised closure plan by June 11, 1984. Documentation that the above two citations have been corrected should be submitted within 30 days.

I appreciate your cooperation to date in completing the groundwater assessment program currently being undertaken at the site. I remind you that the compliance date for filing the first phase report with us is July 11, 1984. I also request that you respond to the above citations with your proposal to meet these requirements within 30 days.

Sincerely,

Jack M. McMillan, Director
Division of Solid Waste Management

JMM:hdb
Attachment
cc: Mr. Bobby Boisseau, Columbus, Mississippi
Mr. Jim Cook, Environmental Protection Agency, Region IV

May 16, 1984

FILE COPY

Mr. Pete Gaskin
Kerr-McGee Chemical Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: MSD990866329

As we discussed previously, the Bureau of Pollution Control is attempting to identify hazardous waste constituents for which analysis must be performed under the assessment plan which you are currently implementing at the Columbus facility. I have attached our proposal for your review and comment. I would appreciate any assistance you could provide in developing a final list of constituents for analysis.

I look forward to seeing you on May 23, in Columbus.

Sincerely,

John Herrmann
Division of Solid Waste Management

JH:hdb
Attachment

KERR-McGEE
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

April 11, 1984

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Mr. Paul Bierstine
Environmental Protection System
C/O Bureau of Pollution Control
Mississippi Dept. of Natural Resources
P. O. Box 10385
Jackson, MS 39209

RE: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus Facility

Dear Mr. Bierstine:

In response to your letter dated March 19, 1984, concerning Preliminary Assessment of the Kerr-McGee Chemical Corporation, Forest Products Division, Columbus Facility, (RCRA 3012 HW Site Inventory), attached are the answers to your questions.

Should you have any further questions, please contact me.

Very truly yours,

KERR-MCGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. Gaskin
Environmental & Quality Control

PCG:jw
Attachments

cc: B. W. Boisseau

FOREST PRODUCTS

KERR-McGEE CHEMICAL CORPORATION - COLUMBUS PLANT

QUESTIONS AND ANSWERS - COLUMBUS PLANT

1. Year of initial operation listed as 1928. Is this correct?

   Answer: Yes.

   Were there wood treating activities by others on this site prior to that (1928) time?

   Answer: No.

2. Other than the boiler blowdown ditch used in the past and the present impoundment, are there:

   a. Any filled-in surface impoundments or landfills onsite used for past disposal of creosote waste?

      Answer: Prior to 1972 there was a surface impoundment used to temporarily store settled creosote until it could be reclaimed and cycled back to the process storage tanks. Following completion of the new oil/water separation facilities in 1972 all creosote and visible settled sludge was removed by pumping and dredging, reclaimed and recycled to preservative storage tanks for reuse in the wood preserving process. The use of the impoundment to contain preservative and wastewater discontinued in 1972. It was closed in 1983.

   b. Any buried drum waste disposal onsite?

      Answer: No.

c. Any other past surface disposal practiced onsite?

Answer: Yes. The use of two small wastewater sand filter beds closed in 1980. Additional oil/water separation equipment installed in 1980 replaced these filter beds. They were by-passed by the treated process water flow, and left in place. Rainfall and runoff entering the filter beds from time of abandonment in 1980 to 1983 flushed out all traces of filtered floc cake and creosote to the wastewater pre-treatment facility. In June 1983 the two small filter beds and underlying gravel courses were found to not contain any trace of creosote or sludge and were subsequently closed.

d. Any offsite disposal used and where located?

Answer: No.

3. When did current surface impoundment go into operation and what was done with creosote wastes prior to that time?

Answer: In 1972. Wastewater containing traces of creosote was discharged off-site into an unnamed drainage ditch.

4. Have any penta or CCA preservatives been used at Columbus?

Answer: Penta, which was discontinued in 1976.

5. Have there been any significant spills of creosote or other chemical preservatives onsite (i.e., drums, truck or rail tank cars)?

Answer: No.

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

April 9, 1984

CERTIFIED-RETURN RECEIPT REQUESTED (AIR EXPRESS)

Mr. John Herrmann
Division of Solid Waste
Bureau of Pollution Control
Mississippi Department of
Natural Resources
P. O. Box 10385
Jackson, MS 39209

RE: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, MS Facility
EPA I.D. No. MSD 990866329

Dear Mr. Herrmann:

Submitted herewith are four copies of the Kerr-McGee Chemical Corporation, Forest Products Division amended closure and post-closure plan for the subject plant.

This plan is submitted in place of a Part B permit application which we elect not to submit. After closure of the hazardous waste units at this location, the plant will maintain generator status only, and all hazardous wastes that may be generated in the future will be transported offsite for final disposal.

Before actual closure of the existing surface aeration and oxidation ponds can begin, a new waste water pretreatment system will be installed and operated. Our present schedule, subject of course to approval of the plan and proposed time tables is to complete the new pretreatment system, have it operational and permitted by MBPC by October 15, 1984.

October 22 is the estimated date final discharge of HW will occur to the existing ponds.

Closure will commence October 24, again contingent on meeting prior dates as described in the plan.

Closure will be completed by December 31, 1984 and certification thereof provided to MBPC by January 15, 1985, according to our plan.

Please contact me at 405/270-2395 when you wish to review and discuss this plan with us.

Sincerely,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. Gaskin
Supervisor Environmental Contol

PCG/JL
Enclosures

March 29, 1984

Mr. P. C. Gaskin
Environmental and Quality Control
Kerr McGee Corporation
Kerr McGee Center
Oklahoma City, Oklahoma 73125

FILE COPY

Dear Mr. Gaskin:

In response to your letter of March 21, 1984, and the assessment plan attached thereto, the Bureau intends to request that the Commission issue an Order, requiring Kerr McGee to proceed with implementation of the plan. The Commission's action will be taken on April 11, 1984.

By copy of this letter, we are informing the Environmental Protection Agency of this action. We are also forwarding a copy of the assessment plan to EPA for review and comment.

If you have any questions with regard to this action, do not hesitate to contact me at 601-961-5171.

Sincerely,

John Herrmann
Division of Solid Waste Management

JH:cm
cc: Mr. James Scarbrough, EPA Region IV

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

March 21, 1984

CERTIFIED - RETURN RECEIPT REQUESTED
AIR EXPRESS

Mr. John P. Herrmann
Division of Solid Waste
Bureau of Pollution Control
Mississippi Department of Natural Resources
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Herrmann:

Re: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus, MS Facility
EPA I.D. No. MSD 990866329

Submitted herewith are two copies of the Kerr-McGee Chemical Corporation, Forest Products Division, Columbus Facility Groundwater Assessment Plan. Please note that the well construction diagrams have been included in the Plan.

Should you have any questions, please contact me at (405) 270-2395.

Very truly yours,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. GASKIN
Environmental and Quality Control

PCG:rc
enc.

cc: B. W. Boisseau - with attachment

FOREST PRODUCTS

FILE COPY

March 8, 1984

Mr. P. C. Gaskin
Kerr McGee Chemical Corporation
Kerr McGee Center
Oklahoma City, OK 73125

Dear Mr. Gaskin:

Re: MSD 990866329

As a follow-up to our meeting of March 7, 1984, and in response to our letter of February 22, 1984, the following items were found to be in agreement:

(1) Kerr McGee would submit a complete assessment plan as quickly as possible.

(2) Following submittal of the assessment plan, the Bureau would review, andiff necessary, modify the plan and recommend that the Commission issue an ordr making the plan enforceable at its April meeting.

(3) Kerr McGee would include in the plan the installation of another upgradient well, in order to verify the nature of the background groundwater quality in the area.

(4) The Bureau will supply a list of parameters for analysis based on the hierarchical approach developed by EPA within two weeks.

(5) Kerr McGee would submit a preliminary closure plan for its Columbus surface impoundment by April 9, 1984.

If you have any questions concerning these items, please contact me at 601-961-5071. I appreciate your cooperation and willingness to resolve the question as to potential contamination of the aquifer underlying the Columbus facility.

Sincerely,

John P. Herrmann
Division of Solid Waste

JPH:lah

February 22, 1984

FILE COPY

Mr. P. C. Gaskin
Kerr-McGee Chemical Corporation
Kerr-McGee Center
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: MSD990866329

This letter acknowledges receipt of your letter of February 8, 1984, regarding the detection of groundwater contamination at your Columbus facility. As you are aware, the Mississippi Hazardous Waste Management Regulations require that you implement a groundwater quality assessment program.

The groundwater quality assessment program outline which you submitted should form the basis of a suitable assessment program, and fulfill the regulatory requirements of MHWMR 265.93(a). Of course, the specific groundwater monitoring program is required within 15 days of notification as set forth in MHWMR 265.93(d)(2).

Since the above facility has been requested to submit its Part B (refer to our letter of December 9, 1983), we believe that it is imperative that any groundwater assessment program initiated at the site be coordinated with the permitting standards contained within MHWMR 264. Consequently, the Bureau requests that you attend a meeting at our office in Jackson at 2:00 p.m. on March 8, 1984.

You should likewise be advised of our intent to bring this matter before the Commission on Natural Resources at its regularly scheduled meeting on March 14, 1984. We will request that an Administrative Order be issued, which will essentially require compliance with the groundwater assessment plan to be discussed (and hopefully approved) at the March 8 meeting.

If you require further clarification of our position, please contact John Herrmann of my staff at (601) 961-5071.

Sincerely,

Jack M. McMillan, Director
Division of Solid Waste Management

JMM:JH:hdb

KERR-McGEE CHEMICAL CORPORATION
KERR-McGEE CENTER • OKLAHOMA CITY, OKLAHOMA 73125

August 25, 1983

Mr. Robert A. Lee
Division of Solid Waste Management
Bureau of Pollution Control
Mississippi Department of Natural Resources
P. O. Box 10385
Jackson, MS 39209

Re: Kerr-McGee Chemical Corporation
Forest Products Division
Columbus Facility
MSD990866329

Dear Mr. Lee:

Reference your inspection report and letter to Mr. Boisseau, dated August 11, 1983, attached are the documents and answers to your questions pertaining to the June 6 inspection of our Columbus facility:

The Columbus RCRA Training Record provides the names, titles, job descriptions, and training dates of the key facility hazardous waste coordinators.

The freeboard at the surface impoundment will be increased to two feet.

I understand you now have the first year baseline groundwater monitoring data, which was included with the 1982 Annual Report.

Well diagrams and lithologies of the one upgradient and three downgradient monitoring wells.

A blueprint showing well elevations and locations.

This information should provide you sufficient data to complete your evaluation of the groundwater monitoring system at the Columbus facility.

Please call me if you have any questions.

Very truly yours,

KERR-McGEE CHEMICAL CORPORATION
FOREST PRODUCTS DIVISION

P. C. GASKIN
Environmental and Quality Control

PCG:rc
enc.

cc: B. W. Boisseau
W. J. Broussard
J. C. Stauter

FILE COP

August 11, 1983

Mr. B. W. Boisseau
Plant Manager
Kerr McGee Chemical Corporation
P. O. Box 906
Columbus, Mississippi 39701

Dear Mr. Boisseau:

Re: MSD990866329

Interim status inspection and groundwater monitoring inspections were conducted at your facility on June 6, 1983. During the inspection I discussed with you the requirement for all personnel related to hazardous waste to have a job title and job description as their position relates to hazardous waste.

Regarding the question of freeboard at your impoundment, we must require that the two feet of freeboard required in Subpart K, Section 265.222 of the Hazardous Waste Regulations, be established and maintained. However, our office would consider a formal written request for less freeboard. Should you choose to submit such a request, you should include substantiating documentation that less freeboard would, in your case, provide adequate protection against discharges due to overtopping the dike. Such documentation should include, as a minimum, design and construction specifications of the impoundment, any records you have to demonstrate that an overflow has never occurred; rainfall records for the period during which the facility has been operated and records to document that maintaining freeboard has not caused violation of your POTW discharge permit. Any additional information you consider pertinent should be submitted. Because it would appear that, whatever the circumstances, two feet of freeboard should offer greater assurance of protection than would eighteen inches, your documentation to the contrary should be as strong as possible.

It is impossible for our office to complete an evaluation of your groundwater monitoring system until you submit the first year's monitoring results and appropriate analyses, all well logs, and construction of the wells, and a plot plan with all monitoring wells indicated.

Very truly yours,

Robert A. Lee
Division of Solid Waste Management

RAL:els

July 19, 1982

Mr. P. C. Gaskin
Kerr-McGee Chemical Corporation
P. O. Box 25861
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

Re: Required Groundwater Monitoring Parameters

At an earlier date, the Division of Solid Waste Management granted you permission to delete certain parameters from the groundwater monitoring parameters required in the Mississippi Hazardous Waste Regulations. This waiver was based on the rationale that only constituents in the waste stream or degradation products, thereof should be of concern to this program. However, EPA has informed us that this waiver of selected parameters would cause the State's regulation program to be less stringent than the federal program.

Therefore, we must require that the remaining first year's monitoring samples be analyzed for all the parameters stipulated in the regulations.

If a decision is made to allow a return to the waiver of certain parameters, we will notify you immediately. We regret any inconvenience this may have caused you.,

Sincerely,

David E. Lee, P.E.
Division of Solid Waste Management

DEL:cl

April 5, 1982

FILE COPY

Mr. P. C. Gaskin
Forest Products Division
Kerr-McGee Chemical Corporation
Kerr-McGee Center
P. O. Box 25861
Oklahoma City, Oklahoma 73125

Dear Mr. Gaskin:

The first quarter monitoring results for the Meridian facility have been received. As discussed previously and requested in your March 26th letter, monitoring for the next three quarters may be reduced to those parameters indicative of potential contamination from the facility in Meridian. These parameters are listed in your letter and in Section 265.92(b)(3) and 265.92(b)(2) (phenols only) of the Hazardous Waste Regulations.

After the first year, sampling will revert to the schedule outlined in the regulations, except some of the parameters may be eliminated. An evaluation of possible deletions from the parameters will be made by this office after receipt of the first year's monitoring results.

If you have any questions, please feel free to contact us.

Sincerely,

David E. Lee, P. E., Environmental Engineer
Division of Solid Waste Management

DEL:cm
cc: Mr. Robert A. Lee, Division of Solid Waste Management

Lowndes

April 5, 1982

Mr. P. C. Gaskin
Forest Products Division
Kerr-McGee Chemical Corp.
Kerr-McGee Center
P. O. Box 25861
Oklahoma City, OK 73125

Dear Mr. Gaskin:

The letter sent to you, dated April 5, incorrectly referred to the Meridian facility regarding changes in the ground-water monitoring plan. The changes are applicable to the Kerr-McGee facility at Columbus.

Please excuse the error and make note of this change.

Sincerely,

David E. Lee, P.E.
Division of Solid Waste Management

DEL:cb
cc: Mr. Robert A. Lee,
Division of Solid Waste Management

Lowe

FILE COPY

January 29, 1982

Gilbert Lowe, Superintendant
Kerr-McGee
P. O. Box 506
Columbus, Mississippi 39701

Dear Mr. Lowe:

Re: Interim Status Inspection
of January 21, 1982

A inspection of your facility was conducted on the above mentioned date. Attached is a copy of the inspection. Substantial compliance with all applicable requirements was noted on the inspection form.

I would like to thank you and the environmental staff of your organization for the fine job you did on this inspection.

If you have any questions, please call me at 961-5066.

Sincerely,

Robert A. Lee, Sanitarian I
Division of Solid Waste Management

RAL:cl
Attachment

FILE COPY

January 26, 1982

Mr. T. L. Bentley
Senior Staff Environmental Engineer
Kerr-McGee Corporation
P. O. Box 25861
Oklahoma City, Oklahoma 73125

Dear Mr. Bentley:

We have received your letter regarding monitoring requirements at the Mississippi facilities. We are conducive to deleting some of the parameters listed in the hazardous waste regulations. However, we do not want to give the impression that only possible contaminants in the waste should be considered. We feel that the four general analyses listed in Section 265.92 (b)(3) should be conducted as specified for a general indication of contamination. The parameters in (b)(1) and (b)(2) may be run as they apply to the facility's waste stream. Additionally, parameters should be conducted which are likely or known to be hazardous constituents of the waste stream. We will concur or not concur with these parameters upon submission of the first quarter's monitoring results.

If you have further questions, please feel free to contact us.

Sincerely,

David E. Lee, P.E., Environmental Engineer
Division of Solid Waste Management

DEL:cl

April 28, 1981

Mr. Gilbert Lowe, Superintendent
Kerr McGee Chemical Corporation
507 14th Street North
Columbus, MS 39701

Dear Mr. Lowe:

As you know, David Lee and I inspected the Kerr McGee Columbus facility on April 22, 1981, and found it to be in substantial compliance with all applicable regulations. Enclosed is a copy of the inspection form. If you have questions regarding this matter, feel free to contact this office.

Sincerely,

Jim Hardage

Jim Hardage, Chemist
Solid Waste Management Branch

JH/cs

cc: Sam Mabry

Enclosure