(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

F	M	S	0	0	8	1	8	2	0	8	1			
1	2										13	14	15	

LABEL ITEMS

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

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

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

II. POLLUTANT CHARACTERISTICS

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

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
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		X
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		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	
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	

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
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	
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	
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	
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	
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: HERCULES INCORPORATED

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*		
2 JORDAN CHARLES ENVIR SUPV	601	545	3450

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX

3 WEST 7TH STREET

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 HATTIESBURG	MS	39401

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 WEST 7TH STREET

B. COUNTY NAME

FOREST

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 HATTIESBURG	MS	39401	

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

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

A. FIRST	B. SECOND
2861 (specify) GUM AND WOOD CHEMICALS	2821 (specify) SYNTHETIC RESINS
C. THIRD	**D. FOURTH**
2869 (specify) INDUSTRIAL ORGANIC CHEMICALS	2899 (specify) CHEMICALS AND CHEMICAL PREP.

VIII. OPERATOR INFORMATION

A. NAME

HERCULES INCORPORATED

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

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

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

P (specify)

D. PHONE (area code & no.)

A 601 645 3450

E. STREET OR P.O. BOX

P O BOX 1937

F. CITY OR TOWN

B HATTIESBURG

G. STATE MS

H. ZIP CODE 39401

IX. INDIAN LAND

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

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water) 9 N MS0001830	**D. PSD** (Air Emissions from Proposed Sources) 9 P
B. UIC (Underground Injection of Fluids) 9 U	**E. OTHER** (specify) 9 08.00-00.001 (specify) AIR PERMIT
C. RCRA (Hazardous Wastes) 9 R	**E. OTHER** (specify) 9 (specify)

XI. MAP

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

XII. NATURE OF BUSINESS (provide a brief description)

MANUFACTURE OF NAVAL STORES PRODUCTS, MODIFIED RESINS AND RESIN SOLUTIONS. MANUFACTURE OF PAPER CHEMICALS, POLYAMIDES, KETENE DIMER EMULSIONS, ROSIN EMULSIONS, WAX EMULSIONS, AND DEFOAMERS.

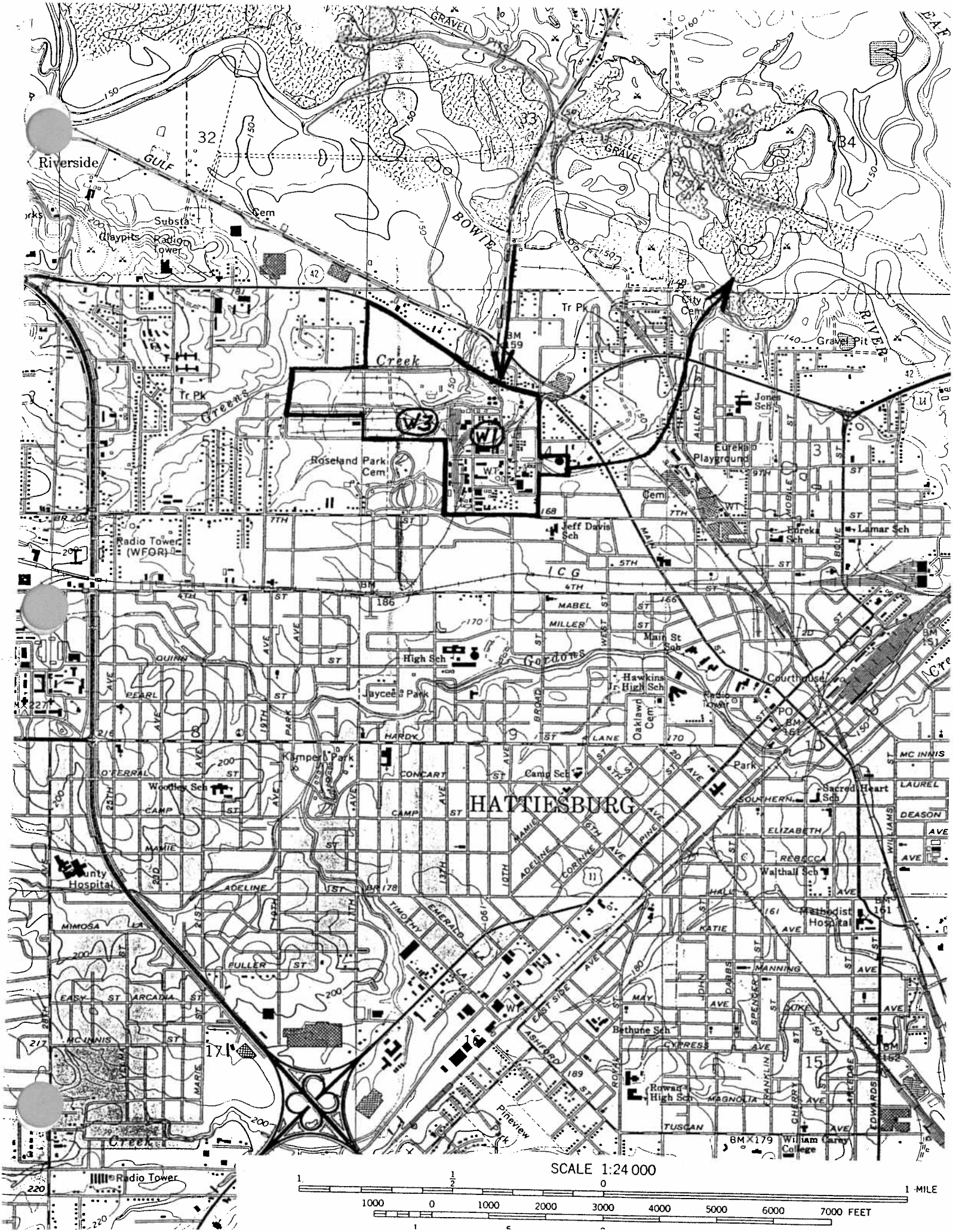
XIII. CERTIFICATION (see instructions)

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

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
PRESTON KIRKENDALL PLANT MGR.	Preston Kirkendall	3-25-91

COMMENTS FOR OFFICIAL USE ONLY

C


Riverside
GULF
BOWIE
GRAVEL PIT
Claypits
Radio Tower
Substa
Cem
Tr Pk
Creek
Greens
W3
W1
Roseland Park Cem
Jeff Davis Sch
Radio Tower (WFOR)
ICG
Jaycee Park
High Sch
Gordons
Hawkins Jr. High Sch
Main St Sch
Courthouse
Oakland Cem
Kamper Park
Woodley Sch
Camp Sch
HATTIESBURG
Hospital
Sacred Heart Sch
Walthall Sch
Methodist Hospital
Bethune Sch
Rowan High Sch
Pineview
William Carey College
Eureka Playground
Eureka Sch
Lamar Sch
Jones Sch
City Cem
Gravel Pit
RIVER
SCALE 1:24 000
1 MILE
7000 FEET

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (copy from Item 1 of Form 1): MSD008182081

OMB No. 2040-0086
Approval expires 7-31-88

FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE 1. DEG.	2. MIN.	3. SEC.	C. LONGITUDE 1. DEG.	2. MIN.	3. SEC.	D. RECEIVING WATER (name)
001	N31	20	18	W89	18	16	BOUIE RIVER
002	N31	20	18	W89	18	16	BOUIE RIVER

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW a. OPERATION (list)	b. AVERAGE FLOW (include units)	3. TREATMENT a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	NAVAL STORES PRODUCTS (MODIFIED RESINS AND ROSIN SOLUTIONS)	0.7 MGD	(FLOWS CONTRIBUTING TO 001 ARE TREATED USING SEDIMENTATION, FLOTATION, NEUTRALIZATION, AND CARBON ADSORPTION)	1H 2A 4A	1U 2K 5H
	PAPER CHEMICALS (POLYAMIDES, EMULSIONS, AND DEFOAMERS)	0.2 MGD			
	SYNTHETIC RUBBER	0.1 MGD			
002	COMBINATION OF 001 AND NON-CONTACT COOLING WATER.	4.3 MGD	NONE		
	SANITARY FACILITIES	0.01 MGD	TO CITY FACILITIES		
	ESTIMATE 001 includes	0.005 MGD (INDUSTRIAL ACTIVITY)	STORM WATER RUNOFF		
	ESTIMATE 002 includes	0.01 MGD (NON-INDUSTRIAL)	STORM WATER RUNOFF		

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any ... discharges described in Items II-A or B intermitte... seasonal?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. A *(in*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☒ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION *			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	
192,800	lbs/DAY	MODIFIED ROSINS	001
168,900	lbs/DAY	MODIFIED RESINS	001
8,600	lbs/DAY	ESSENTIAL OILS	001
40,800	lbs/DAY	RUBBER	001
501,100	lbs/DAY	MISCELLANEOUS (PAPER SIZING AGENTS, DEFOAMERS, ROSIN AMINE, SURFACTANTS)	001

* SEE ATTACHMENTS PAGE 2 OF 4 (I) AND PAGE 2 OF 4 (II)

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES *(complete the following table)* ☒ NO *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY a. DAYS PER WEEK *(specify average)*	3. FREQUENCY b. MONTHS PER YEAR *(specify average)*	4. FLOW a. FLOW RATE *(in mgd)* 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE *(in mgd)* 2. MAXIMUM DAILY	4. FLOW b. TOTAL VOLUME *(specify with units)* 1. LONG TERM AVERAGE	4. FLOW b. TOTAL VOLUME *(specify with units)* 2. MAXIMUM DAILY	4. FLOW c. DURATION *(in days)*

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☒ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	2. AFFECTED OUTFALLS *(list outfall numbers)*
9,700	lbs/DAY	MODIFIED ROSINS	001
7,400	lbs/DAY	MODIFIED RESINS	001
15,600	lbs/DAY	ESSENTIAL OILS	001
65,300	lbs/DAY	RUBBER	001
604,400	lbs/DAY	MISCELLANEOUS (PAPER SIZING AGENTS, DEFOAMERS, ROSIN AMINE, SURFACTANTS)	001

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES *(complete the following table)* ☒ NO *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

C. Except for storm runoff, leaks, or spills, are any discharges described in Items II-A or B intermittent, seasonal?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. DURATION *(in days)*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☒ YES *(complete Item III-B)* ☐ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☒ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION (MAXIMUM CAPABILITY)			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	
,000	lbs/DAY	MODIFIED ROSINS	001
7,500	lbs/DAY	MODIFIED RESINS	001
25,000	lbs/DAY	ESSENTIAL OILS	001
76,800	lbs/DAY	RUBBER	001
1,088,700	lbs/DAY	MISCELLANEOUS (PAPER SIZING AGENTS, DEFOAMERS, ROSIN AMINE, SURFACTANTS)	001

IV. IMPROVEMENTS

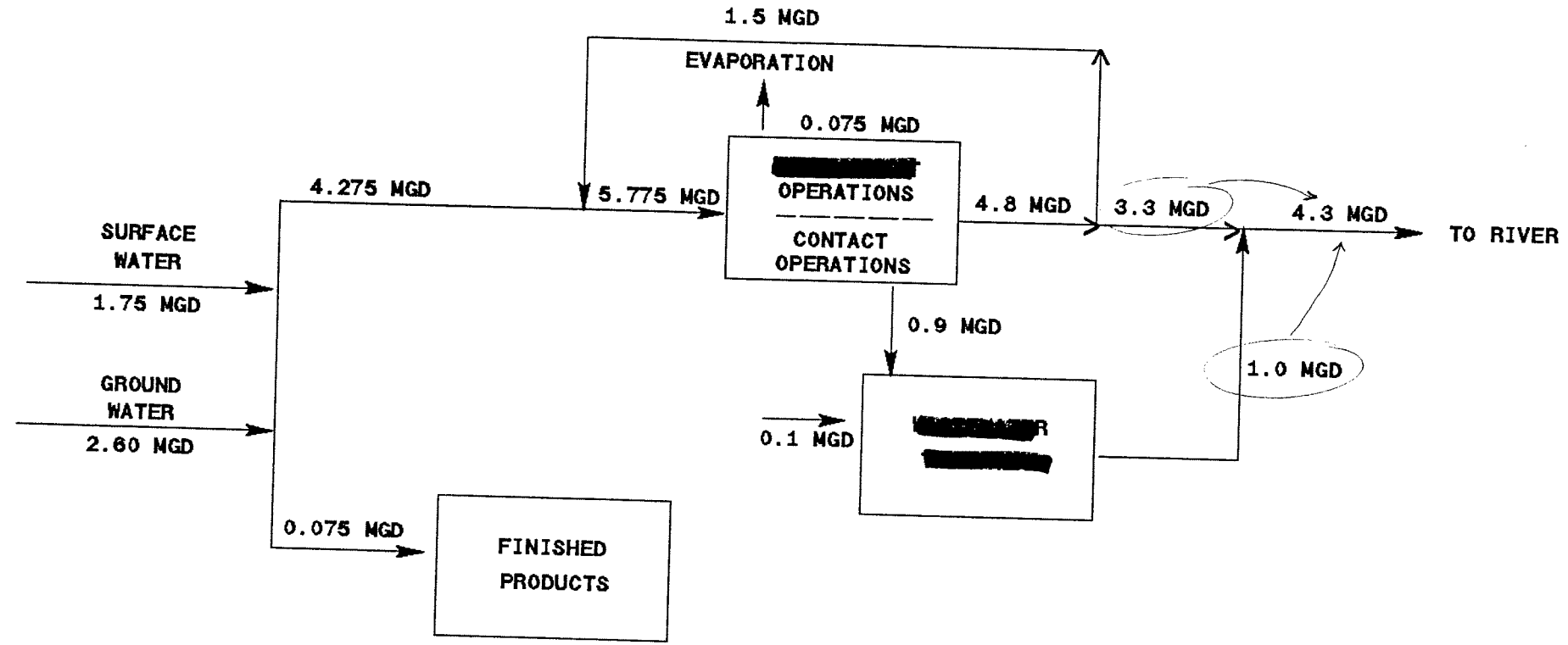
A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

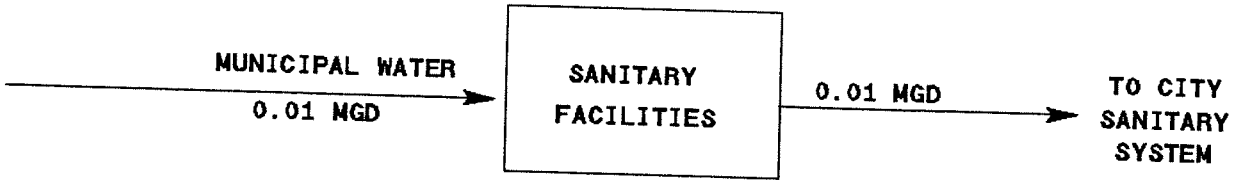
☐ YES *(complete the following table)* ☒ NO *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

FIGURE - 3

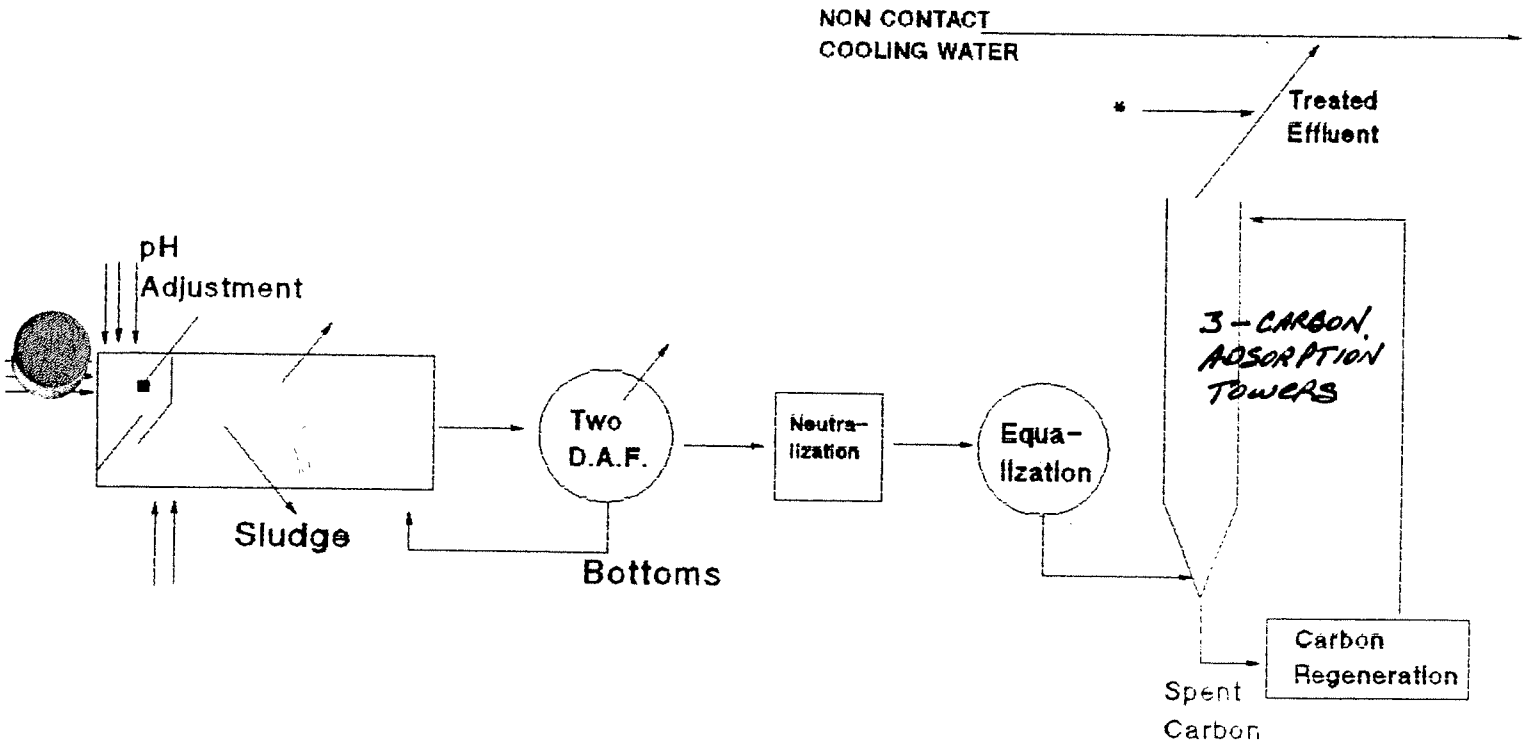




SCHEMATIC OF WATER FLOW
HERCULES INCORPORATED
HATTIESBURG, MS
1990 YEARLY AVERAGES
(ACTUAL)

CSJ014

WASTEWATER AREA



CSJ006

CONTINUED FROM PAGE 2

EPA I.D. NUMBER (copy from Item 1 of Form 1) MSD008182081

Form Approved.
OMB No. 2040-0086
Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NOTE: WE USE THE FOLLOWING CHEMICALS LISTED IN TABLE 2c-3 BUT HAVE NO REASON TO BELIEVE THAT THEY ARE NECESSARILY PRESENT IN OUR DISCHARGE			
(1) EPICHLOROHYDRIN – USED AS REACTANT IN PAPER CHEMICALS			
(2) FURFURAL – USED AS RECYCLE SOLVENT IN MODIFIED ROSINS			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or by-product?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☒ YES *(identify the test(s) and describe their purposes below)* ☐ NO *(go to Section VIII)*

QUARTERLY 96 HOUR STATIC BIOASSAY TESTS ARE ONE OF THE MONITORING REQUIREMENTS IN OUR CURRENT NPDES PERMIT.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
BONNER ANALYTICAL TESTING	ROUTE 13, BOX 85 HATTIESBURG, MS 39401	601 264 2854	ALL APPLICATION REQUIREMENTS EXCEPT CURRENT NPDES PERMIT DATA
CULPEPPER TESTING LAB	205 MAIN ST HATTIESBURG, MS 39401	601 583 0411	PHENOLS

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
PRESTON KIRKENDALL PLANT MANAGER	601 545 3450
C. SIGNATURE	D. DATE SIGNED
Preston Kirkendall	3-25-91

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: MSD 008182081

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*	290	2785	104	1137	86	713	156	mg/l	lbs	← (NET EFFLUENT)		
b. Chemical Oxygen Demand *(COD)*	177	1129					1	mg/l	lbs			
c. Total Organic Carbon *(TOC)*	209	2144	116	970	65	540	365	mg/l	lbs	← (NET EFFLUENT)		
d. Total Suspended Solids *(TSS)*	73	1254	51	524	21	174	156	mg/l	lbs	← (NET EFFLUENT)		
e. Ammonia *(as N)*	78	78					1	mg/l	lbs			
f. Flow	VALUE 2.40		VALUE 1.31		VALUE 1.0		365	MGD		VALUE		
g. Temperature *(winter)*	VALUE (SEE OUTFALL 002)		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE (SEE OUTFALL 002)		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM (SEE OUTFALL 002)	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. ANALYSES
i. Bromide (24959-67-9)		X							1					
j. Chlorine, Total Residual		X							1					
k. Color	X		85						1					
l. Fecal Coliform														
m. Fluoride (16984-48-8)		X							1					
n. Nitrate–Nitrite *(as N)*	X		6.8	68					1	mg/l	lbs/DAY			

EM V-B CONTINUED FROM FRONT

POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
Nitrogen, tal Organic N)	X		11.0	110					1	mg/l	lbs/day			
Oil and ease	X		8.0	80					1	mg/l	lbs/day			
hosphorus P), Total 723-14-0)	X		0.22	2.2					1	mg/l	lbs/day			
Radioactivity														
Alpha, tal		X							1					
Beta, tal		X							1					
Radium, tal		X							1					
Radium 26, Total		X							1					
Sulfate s SO_4) 4808-79-8)	X		163	1630					1	mg/l	lbs/day			
Sulfide s S)		X							1					
Sulfite s SO_3) 14265-45-3)		X							1					
Surfactants	X		3.73	37					1	mg/l	lbs/day			
Aluminum, otal 7429-90-5)	X		0.40	4					1	mg/l	lbs/day			
Barium, otal 7440-39-3)		X							1					
Boron, Total 7440-42-8)	X		3.8	38					1	mg/l	lbs/day			
Cobalt, Total 7440-48-4)		X							1					
Iron, Total (7439-89-6)	X		0.019	0.19					1	mg/l	lbs/day			
Magnesium, Total (7439-95-4)	X		0.41	4.1					1	mg/l	lbs/day			
Molybdenum, Total (7439-98-7)		X							1					
Manganese, Total (7439-96-5)	X		0.009	0.09					1	mg/l	lbs/day			
Tin, Total (7440-31-5)	X		0.10	1.0					1	mg/l	lbs/day			
Titanium, Total (7440-32-6)		X							1					

CONTINUED ON PAGE V - 3

CONTINUED FROM PAGE 3 OF FORM 2-C

EPA I.D. NUMBER (copy from Item 1 of Form 1) MSD 008182081 | OUTFALL NUMBER 001

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
M. Antimony, Total (7440-36-0)		X		0.008	0.08					1	mg/l	lbs/day			
M. Arsenic, Total (7440-38-2)			X							1					
M. Beryllium, Total, 7440-41-7)			X							1					
M. Cadmium, Total (7440-43-9)			X							1					
M. Chromium, Total (7440-47-3)			X							1					
M. Copper, Total (7440-50-8)			X							1					
M. Lead, Total (7439-92-1)			X							1					
M. Mercury, Total (7439-97-6)			X							1					
M. Nickel, Total (7440-02-0)		X		0.023	0.23					1	mg/l	lbs/day			
M. Selenium, Total (7782-49-2)			X							1					
M. Silver, Total (7440-22-4)			X							1					
M. Thallium, Total (7440-28-0)		X		0.008	0.08					1	mg/l	lbs/day			
M. Zinc, Total (7440-66-6)		X		0.018	0.18					1	mg/l	lbs/day			
M. Cyanide, Total (57-12-5)			X							1					
M. Phenols, Total		X		0.25	2.5					1	mg/l	lbs/day			
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS (SEE ATTACHMENT)											

EPA Form 3510-2C (Rev. 2-85)

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
MS FRACTION – VOLATILE COMPOUNDS															
Acrolein -02-8)			X							1					
Acrylonitrile -13-1)			X							1					
Benzene 43-2)		X		0.022	0.22					1	mg/l	lbs/day			
Bis (*Chloro-hyl*) Ether 2-88-1)			X							1					
Bromoform 25-2)			X							1					
Carbon rachloride 23-5)			X							1					
Chlorobenzene 3-90-7)			X							1					
Chlorodi-momethane 4-48-1)			X							1					
Chloroethane -00-3)		X		0.206	2.06					1	mg/l	lbs/day			
2-Chloro-ylvinyl Ether 0-75-8)			X							1					
Chloroform -66-3)			X							1					
Dichloro-momethane 5-27-4)			X							1					
Dichloro-luoromethane 5-71-8)			X							1					
1,1-Dichloro-ane (75-34-3)			X							1					
1,2-Dichloro-ane (107-06-2)			X							1					
1,1-Dichloro-ylene (75-35-4)			X							1					
1,2-Dichloro-opane (78-87-5)			X							1					
1,3-Dichloro-opylene (542-75-6)			X							1					
Ethylbenzene 00-41-4)			X							1					
Methyl romide (74-83-9)			X							1					
Methyl hloride (74-87-3)			X							1					

CONTINUE ON PAGE V-5

CONTINUED FROM PAGE V-4

EPA I.D. NUMBER (copy from Item 1 of Form 1): MSD 008182081

OUTFALL NUMBER: 001

OMB No. 2040-0086
Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			X							1					
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X							1					
24V. Tetrachloroethylene (127-18-4)			X							1					
25V. Toluene (108-88-3)		X		0.792	7.92					1	mg/l	lbs/day			
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X							1					
27V. 1,1,1-Trichloroethane (71-55-6)			X							1					
28V. 1,1,2-Trichloroethane (79-00-5)			X							1					
29V. Trichloroethylene (79-01-6)			X							1					
30V. Trichlorofluoromethane (75-69-4)			X							1					
31V. Vinyl Chloride (75-01-4)			X							1					
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X							1					
2A. 2,4-Dichlorophenol (120-83-2)			X							1					
3A. 2,4-Dimethylphenol (105-67-9)			X							1					
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X							1					
5A. 2,4-Dinitrophenol (51-28-5)			X							1					
6A. 2-Nitrophenol (88-75-5)			X							1					
7A. 4-Nitrophenol (100-02-7)			X							1					
8A. P-Chloro-M-Cresol (59-50-7)			X							1					
9A. Pentachlorophenol (87-86-5)			X							1					
10A. Phenol (108-95-2)		X		0.072	0.72					1	mg/l	lbs/day			
11A. 2,4,6-Trichlorophenol (88-06-2)			X							1					

TINUED FROM THE FRONT

POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
MS FRACTION – BASE/NEUTRAL COMPOUNDS															
Acenaphthene 32-9)			X							1					
Acenaphtylene 3-96-8)			X							1					
Anthracene 0-12-7)			X							1					
Benzidine -87-5)			X							1					
Benzo *(a)* hracene -55-3)			X							1					
Benzo *(a)* ene (50-32-8)			X							1					
3,4-Benzo- oranthene 5-99-2)			X							1					
Benzo *(ghi)* ylene 1-24-2)			X							1					
Benzo *(k)* ioranthene 07-08-9)			X							1					
B. Bis *(2-Chloro-* oxy)* Methane 11-91-1)			X							1					
B. Bis *(2-Chloro-* yl)* Ether 11-44-4)			X							1					
Bis *(2-Chloroiso-* pyl)* Ether (102-60-1)			X							1					
B. Bis *(2-Ethyl-* xyl)* Phthalate 17-81-7)		X		0.011	0.11					1	mg/l	lbs/day			
B. 4-Bromo- enyl Phenyl her (101-55-3)			X							1					
B. Butyl Benzyl thalate (85-68-7)			X							1					
B. 2-Chloro- phthalene 1-58-7)			X							1					
B. 4-Chloro- enyl Phenyl ther (7005-72-3)			X							1					
B. Chrysene 18-01-9)			X							1					
B. Dibenzo *(a,h)* nthracene 53-70-3)			X							1					
B. 1,2-Dichloro- enzene (95-50-1)			X							1					
B. 1,3-Dichloro- enzene (541-73-1)			X							1					

CONTINUED ON PAGE V-7

CONTINUED FROM PAGE V-6

EPA I.D. NUMBER (copy from Item 1 of Form 1) MSD 008182082 | OUTFALL NUMBER 001

Form Approved. OMB No. 2040-0086 Approval expires 7-31-88

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)			X							/					
23B. 3,3'-Dichlorobenzidine (91-94-1)			X							/					
24B. Diethyl Phthalate (84-66-2)			X							/					
25B. Dimethyl Phthalate (131-11-3)			X							/					
26B. Di-N-Butyl Phthalate (84-74-2)			X							/					
27B. 2,4-Dinitrotoluene (121-14-2)			X							/					
28B. 2,6-Dinitrotoluene (606-20-2)			X							/					
29B. Di-N-Octyl Phthalate (117-84-0)			X							/					
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X							/					
31B. Fluoranthene (206-44-0)			X							/					
32B. Fluorene (86-73-7)			X							/					
33B. Hexachlorobenzene (118-74-1)			X							/					
34B. Hexachlorobutadiene (87-68-3)			X							/					
35B. Hexachlorocyclopentadiene (77-47-4)			X							/					
36B. Hexachloroethane (67-72-1)			X							/					
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X							/					
38B. Isophorone (78-59-1)			X							/					
39B. Naphthalene (91-20-3)			X							/					
40B. Nitrobenzene (98-95-3)			X							/					
41B. N-Nitrosodimethylamine (62-75-9)			X							/					
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X							/					

TINUED FROM THE FRONT

POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
N-Nitro-phenylamine (30-6)			X							/					
Phenanthrene (01-8)			X							/					
Pyrene (-00-0)			X							/					
1,2,4 - Tri-robenzene (-82-1)			X							/					
MS FRACTION – PESTICIDES															
Aldrin (-00-2)			X							/					
α-BHC (-84-6)			X							/					
β-BHC (-85-7)			X							/					
γ-BHC (-89-9)			X							/					
δ-BHC (-86-8)			X							/					
Chlordane (-74-9)			X							/					
4,4'-DDT (-29-3)			X							/					
4,4'-DDE (-55-9)			X							/					
4,4'-DDD (-54-8)			X							/					
P. Dieldrin (-57-1)			X							/					
P. α-Endosulfan (5-29-7)			X							/					
P. β-Endosulfan (5-29-7)			X							/					
P. Endosulfan lfate (031-07-8)			X							/					
P. Endrin (-20-8)			X							/					
P. Endrin ldehyde (421-93-4)			X							/					
P. Heptachlor (-44-8)			X							/					

EPA I.D. NUMBER (copy from Item 1 of [illegible] | OUTFALL NUMBER

Form Approved.
OMB No. 2040-0086
Approval expires 7-31[illegible]

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						d. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)			a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		d. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X							/					
18P. PCB-1242 (53469-21-9)			X							/					
19P. PCB-1254 (11097-69-1)			X							/					
20P. PCB-1221 (11104-28-2)			X							/					
21P. PCB-1232 (11141-16-5)			X							/					
22P. PCB-1248 (12672-29-6)			X							/					
23P. PCB-1260 (11096-82-5)			X							/					
24P. PCB-1016 (12674-11-2)			X							/					
25P. Toxaphene (8001-35-2)			X							/					